

2015 Mississippi Cotton Variety Trials



2015 Mississippi Official Cotton Variety Trials

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PREFACE

The main objective of the Mississippi Cotton Official Variety Trials (OVT) is to provide unbiased information to clientele regarding evaluation of yield and fiber performance of commercial cotton varieties and advanced lines that may become varieties in the future. 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 data presented may change after additional experimentation over years. All 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



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Acknowledgement

The authors would like to express their appreciation first and foremost to the four producers who participated in the 2015 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 the state of Mississippi. Thank you to Cliff Heaton (Clarksdale), Phil Nichols and George Cunningham (Eden), and George 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 Chase Samples and Chase King of 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 Tandon Baker, Michael Davis, Drew Denton, Savana Davis, Lucas Franca, Steven Hall, Bradley Norris, Michael Plumblee 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 cultivars 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.

Input management for trials is determined by cooperators at each location based on soil texture, soil test value, and scouting for pest pressures. However, seeding rate and physical seeding is controlled by the cotton variety testing coordinator. A list of agronomically important input management dates is presented in Appendix 1. Agronomic date information allows the user to take into account management practices at each location when evaluating yield.

All fiber parameters (lint percent, individual boll weight) as well as HVI fiber quality assessment are based upon a hand-picked 25 boll sample from each replicated plot at each location. The 25-boll 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. High Volume Instrumentation analysis for fiber property determinations are conducted by the Fiber and Biopolymer Research Institute at Texas Tech University in Lubbock, TX.

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

The commercial varieties utilized as standard checks for comparison in 2015 were as follows; Delta Pine and Land 1321 B2RF, PhytoGen 499 WRF, and Stoneville 4946GLB2. These varieties were included to give the end user an idea of how newer cultivars compare to proven high yielding varieties adapted to the Mid-South growing region.

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 very minimal footprint. The minimal footprint associated with small plot research generally allows for less variability among replications due to field variability (i.e. soil textural changes, pest variations). Reduced variability lends us a greater understanding of a variety's genetic potential 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 Fishers 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 yielding 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 shown at the bottom of the data variable columns.

The varieties listed in bold may have slightly differing numerical yields, 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 geographical closest location that is representative of their operation, but should also review yield information across locations to get an idea of a variety's yield stability over a wide range of production environments.

Selecting a Variety/Trait

Cultivar selection is one; if not the most important management decision a producer must make for the duration of growing season. Improper variety selection generally cannot be overcome with management. Starting with the greatest genetic potential will generally the highest yield with all other things being considered equal. Careful consideration should go into selecting varieties that are well adapted to 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 yielding 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, or XF. Varieties with these designations can tolerate over the top applications of glyphosate. The newer GlyTol and Flex varieties have completely replaced the older roundup ready varieties (R or RR). Glytol and Flex varieties allow for over the top applications to be made later into the season. XtendFlex (XF) varieties are tolerant also tolerant to Liberty and dicamba.

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 tolerant also tolerant to Liberty and dicamba.

It is important to note that producers utilizing both glyphosate and glufosinate tolerant varieties 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://msucares.com/pubs/publications/p1532/cotton.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://msucares.com/pubs/publications/p2471.pdf>

WideStike – Phytogen varieties with the designation W or W3 on the bag or in the variety name. Like Bollgard 2, Widestrike varieties contain two genes that produce proteins toxic to caterpillar pests. Additionally, W3 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://msucares.com/pubs/publications/p2471.pdf>

TwinLink – Bayer varieties with the designation T on the bag or in the variety name. Like Bollgard 2, 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://msucares.com/pubs/publications/p2471.pdf>

Considerations for Selection

Yield variability among calendar years within a variety is certain. Therefore selection decisions should be made from within the range of top yielding varieties. Newer varieties with limited available data 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 should be the primary factor when attempting to select a variety, but do not discount fiber quality as a close second. Do not underestimate the discounts associated with high micronaire which can be significant.

A consideration to look at 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 currently 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 2015, data was submitted to the upland cotton loan valuation aid. This tool was developed by Dr. Larry Falconer and is supported by Cotton Incorporated. The tool allows for calculation of Commodity Credit Corporation cotton loan premium and discount values based on yields and HVI classing information. The program is updated annually.

Top Yielding Varieties

There are numerous methods to pick or highlight the top yielding varieties across locations to develop a “short list” of promising varieties for future plantings. 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 trials 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.

Table 1. Varieties submitted for testing by participating industry partners in 2015.

Industry Contact	Official Variety Trial Entries	
Americot Inc. – NexGen Varieties <i>Tom Brooks</i>	NG 3405 B2XF NG 3406 B2XF NG 5007 B2XF	
Bayer Crop Science <i>Andy White</i>	ST 4747GLB2 ST 4848GLT ST 4946GLB2†(Standard) ST 4949GLT ST 5032GLT ST 5115GLT	ST 6182GLT ST 6448GLB2 BX 1531GLT BX 1532GLT BX 1634GLT BX 1638GLT
Crop Production Services/Dyna-Gro Seed <i>Scott Cummings</i>	DG 2285 B2RF DG 3385 B2XF DG CT14515 B2RF DG CT15426 B2RF DG CT15557 B2RF	
International Seed Technology <i>Carmen Carvajal</i>	BRS-286 BRS-293 BRS-335	
Monsanto <i>Dave Albers</i>	DP 1321 B2RF†(Standard) DP 1518 B2XF DP 1522 B2XF DP 1538 B2XF DP 1553 B2XF DP 1555 B2RF	DP 1558NR B2RF DP 1612 B2XF DP 1614 B2XF DP 1639 B2XF DP 1646 B2XF MON 15R513 B2XF
PhytoGen Seed Co. <i>Brooks Blanche</i>	PHY 222 WRF PHY 312 WRF PHY 333 WRF PHY 339 WRF PHY 427 WRF PHY 444 WRF	PHY 487 WRF PHY 495 W3RF PHY 496 W3RF PHY 499 WRF†(Standard) PHY 552 WRF
Seed Source Genetics <i>Ed Jungmann</i>	SSG CT 210 SSG UA 222	
Winnfield Solutions, LLC <i>Robert Cossar</i>	CG 3885 B2XF	

† (Std) Designates a standard entry to be used for check purposes

Table 2. One-year mean yield performance and fiber characteristics for OVT varieties submitted for testing in 2015 averaged across all (8) testing locations

Variety	Seedcotton Yield	Measurement								
		Lint Yield†	Lint	Length	Mic.	Strength	Uniform.	Elong.	Boll Wt.	Loan Value
	(lb/acre)	(lb/acre)	(%)	(in.)	----	(g/tex)	(%)	(%)	(g)	¢/LB
PHY 444 WRF	4355	1612	0.43	1.26	4.4	31.6	84.9	6.83	5.10	54.52
DP 1555 B2RF	4124	1592	0.44	1.20	4.8	32.6	83.9	7.31	4.93	53.96
PHY 333 WRF	4233	1565	0.43	1.18	4.8	30.6	84.0	7.09	5.12	53.50
PHY 312 WRF	4292	1560	0.42	1.19	4.7	31.7	84.7	7.49	4.83	53.88
ST 4949GLT	3949	1552	0.45	1.14	5.0	30.4	83.6	7.46	5.27	52.52
PHY 552 WRF	4182	1540	0.42	1.17	4.6	32.0	84.1	7.33	4.46	54.20
ST 6182GLT	3924	1531	0.45	1.16	4.9	30.1	83.8	7.24	5.04	53.21
PHY 496 W3RF	4143	1531	0.43	1.14	5.0	31.6	83.6	8.03	4.92	52.36
DP 1522 B2XF	4157	1510	0.42	1.15	5.0	31.4	83.6	8.83	4.78	52.46
DP 1646 B2XF	4074	1510	0.43	1.26	4.7	30.4	84.2	7.72	4.57	54.21
DP 1538 B2XF	3731	1504	0.43	1.11	4.8	29.6	82.9	8.13	4.88	52.71
PHY 499 WRF	3994	1503	0.43	1.15	5.0	32.8	84.1	8.29	4.98	52.59
NG 3406 B2XF	4097	1489	0.42	1.15	4.8	30.7	83.9	8.36	5.04	53.16
DP 1321 B2RF	4107	1489	0.42	1.16	5.0	32.0	83.9	8.73	4.92	52.44
PHY 487 WRF	4201	1489	0.41	1.12	4.9	30.4	82.8	8.03	4.85	52.40
NG 3405 B2XF	4091	1487	0.42	1.11	4.8	28.1	82.7	7.36	5.12	52.66
DG CT 15557 B2RF	3914	1484	0.44	1.16	4.9	30.6	83.7	7.93	4.91	53.07
DP 1518 B2XF	4245	1484	0.40	1.17	4.5	29.6	83.4	6.98	4.67	53.85
BX 1531GLT	3683	1478	0.45	1.15	5.0	30.5	83.7	7.28	5.05	52.52
DP 1558NR B2RF	3900	1472	0.42	1.20	4.9	33.1	84.3	7.47	5.47	53.09
DG 2285 B2RF	4016	1464	0.41	1.17	4.7	30.7	84.2	8.09	5.05	53.83
PHY 495 W3RF	3891	1460	0.43	1.12	4.7	33.4	84.0	8.30	4.83	53.75
MON 1639 B2XF	3846	1458	0.44	1.16	5.1	32.9	84.1	8.07	4.48	52.27
PHY 339 WRF	4096	1453	0.41	1.17	4.7	31.6	83.7	7.67	4.87	54.02
BX 1638GLT	3991	1451	0.42	1.22	4.7	32.5	83.6	7.12	5.00	53.75
DP 1553 B2XF	3923	1448	0.42	1.19	4.6	30.8	83.8	8.06	4.91	54.25
DG CT 15426 B2RF	3776	1445	0.44	1.14	4.8	30.4	84.0	8.79	5.20	53.16
CG 3885 B2XF	3808	1442	0.43	1.15	4.8	30.5	83.5	8.15	4.94	53.52
BX 1634GLT	4011	1437	0.41	1.18	5.1	31.5	84.4	6.21	5.18	52.26
ST 4848GLT	3830	1434	0.43	1.16	5.1	31.2	83.7	7.22	4.98	52.57
ST 4747GLB2	4087	1431	0.40	1.20	4.8	29.5	82.7	5.86	4.95	53.50
DP 1612 B2XF	4057	1431	0.40	1.19	4.7	32.4	83.9	8.30	4.88	54.01
ST 4946GLB2	4061	1428	0.41	1.15	5.1	32.3	83.9	7.74	5.62	52.71
NG 5007 B2XF	3939	1426	0.42	1.16	4.6	29.2	82.9	7.87	4.70	53.91
DG 3385 B2XF	3910	1421	0.42	1.16	4.9	30.4	84.5	8.30	4.79	52.83
ST 5115GLT	3986	1408	0.41	1.15	4.7	31.9	83.0	7.47	5.55	53.02
SSG UA 222	4090	1404	0.40	1.23	4.9	31.9	84.4	8.23	5.13	53.38
BX 1532GLT	3560	1393	0.45	1.16	4.8	30.1	83.8	7.08	4.75	53.33
PHY 427 WRF	3980	1380	0.40	1.15	4.7	31.6	83.6	8.26	4.59	53.69
DP 1614 B2XF	3680	1376	0.43	1.20	5.0	31.2	84.1	8.23	4.34	52.72
PHY 222 WRF	3848	1361	0.41	1.15	5.1	31.3	84.3	8.35	5.01	51.96
ST 6448GLB2	3943	1354	0.40	1.22	4.8	29.4	83.1	6.15	4.77	53.55

ST 5032GLT	3909	1348	0.40	1.20	4.7	32.2	83.9	7.64	5.23	53.93
MON 15R513 B2XF	3641	1329	0.41	1.19	4.9	31.0	84.3	7.83	4.87	52.74
DG CT 14515 B2RF	3604	1265	0.41	1.20	4.9	32.7	83.9	7.65	5.41	53.19
SSG CT 210	3705	1227	0.38	1.14	5.1	32.3	83.2	7.27	5.18	51.84
BRS 293	3579	1195	0.38	1.16	5.1	33.7	83.7	7.79	5.43	52.40
BRS 335	3483	1119	0.37	1.20	5.0	32.9	83.4	6.00	5.12	53.16
BRS 286	3115	1053	0.39	1.14	4.9	32.5	83.4	7.00	4.94	52.72
Overall Mean	3934	1433	0.42	1.17	4.9	31.3	83.8	7.65	4.97	53.17
LSD(0.05)	487	168	0.01	0.02	0.2	0.7	0.5	0.24	0.25	0.85
C.V. (%)	25	24	4.10	3.85	8.0	4.2	1.3	6.35	10.24	3.23

† Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.



Table 3. Two-year mean yield performance of varieties cultivated at 3 locations in the Delta region during 2014 and 2015.

	Location and Year						Average across location and year
	Clarksdale		Stoneville		Tunica		
	2014	2015	2014	2015	2014	2015	
	----- Lint yield (lb lint/acre) -----						
PHY 552 WRF	2342	2097	2749	2094	1025	1268	1929
PHY 312 WRF	1948	1869	2745	1968	1350	1481	1894
PHY 496 W3RF	2213	1671	2564	1997	1008	1536	1832
PHY 444 WRF	2098	1929	2835	1786	853	1408	1818
BX 1531GLT	2336	1861	2680	1680	751	1563	1812
DP 1321 B2RF	2039	1773	2818	2063	1049	1124	1811
PHY 333 WRF	2120	1723	2724	1976	1212	1030	1798
PHY 427 WRF	1936	1779	2768	1783	1150	1335	1792
PHY 487 WRF	1951	1687	2654	1797	1057	1577	1787
DG 2285 B2RF	1876	1669	2881	1759	990	1468	1774
PHY 499 WRF	2416	1768	2547	1750	830	1227	1756
PHY 495 W3RF	2204	1636	2687	1910	701	1191	1722
ST 4946GLB2	1755	1646	2807	1419	1376	1253	1709
SSG UA 222	1819	1855	2685	1739	1037	1104	1707
BX 1532GLT	1961	1774	2582	1736	923	1165	1690
ST 5115GLT	1782	1609	2653	1765	1015	1179	1667
ST 6182GLT	1857	1807	2639	1826	529	1325	1664
ST 4747GLB2	1960	1626	2541	1777	823	1208	1656
ST 5032GLT	1841	1658	2576	1604	988	1170	1640
PHY 339 WRF	1883	1586	2473	1657	886	1350	1639
DG CT14515 B2RF	2146	1403	2322	1476	619	1192	1526
ST 6448GLB2	1510	1549	2426	1326	916	1340	1511
SSG CT 210	1676	1495	2335	1432	565	1372	1479
BRS 335	1739	1486	2309	1287	594	1033	1408
BRS 293	1679	1614	1986	1470	646	1019	1402

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

Table 4. Two-year mean yield performance of varieties cultivated at 4 locations in the Hill region during 2014 and 2015.

Variety	Location and Year								Average across location and year
	Brooksville		Senatobia		Starkville		Verona		
	2014	2015	2014	2015	2014	2015	2014	2015	
	-----Lint yield (lb lint/acre)-----								
PHY 444 WRF	1213	1565	1731	1818	1891	1332	1448	1908	1613
PHY 499 WRF	875	1340	1768	1908	1627	1232	1666	1742	1520
PHY 339 WRF	972	1262	1713	1696	1876	1435	1615	1568	1517
PHY 333 WRF	727	1489	1751	1791	1576	1281	1730	1677	1503
PHY 312 WRF	871	1202	1757	1696	1722	1174	1739	1740	1488
PHY 496 W3RF	750	1143	1791	1730	1629	1445	1731	1555	1472
ST 6182GLT	855	1275		1795	1630	1345	1529	1830	1466
ST 4946GLB2	991	1212	1441	1825	1576	1204	1527	1611	1423
PHY 552 WRF	873	1346	1825	1654	1388	1190	1398	1690	1421
BX 1531GLT	1164	1104	1268	1517	1538	1263	1704	1730	1411
ST 4747GLB2	1053	1150	1695	1621	1372	1196	1411	1735	1404
PHY 495 W3RF	1032	1418	1210	1661	1438	1154	1738	1564	1402
ST 6448GLB2	979	1219	1276	1599	1591	1406	1469	1535	1384
SSG UA 222	743	1090	1911	1326	1685	1236		1680	1382
ST 5115GLT	798	1302	1796	1678	1443	994	1365	1605	1373
DP 1321 B2RF	858	1053	1316	1685	1429	1199	1750	1661	1369
PHY 487 WRF	550	1301	1720	1691	1527	1113	1381	1651	1367
DG 2285 B2RF	841	826	1440	1581	1631	1263	1721	1511	1352
ST 5032GLT	881	1131	1370	1618	1295	879	1734	1590	1312
PHY 427 WRF	510	817	1768	1583	1449	1080	1336	1635	1272
BX 1532GLT	664	1125		1333	1340	1023	1551	1784	1260
DG CT14515 B2RF	1007	1509	1219	1248	1339	1004	1141	1580	1256
BRS 286	589	1085	1481	874	1487	1113		1283	1130
BRS 293	520	1139	998	1091	1378	981		1652	1108
SSG CT 210	714	1138	1484	113	1624	1065		1507	1092
BRS 335	615	1077		894	1375	1146		1349	1076

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

Table 5. One-year mean yield performance of varieties cultivated at 4 locations in the Delta Region during 2015.

Variety	Seedcotton Yield	Measurement								
		Lint Yield†	Lint	Length	Mic.	Strength	Uniform.	Elong.	Boll Wt.	Loan Value
	(lb/acre)	(lb/acre)	(%)	(in.)	---	(g/tex)	(%)	(%)	(g)	¢/LB
PHY 312 WRF	4630	1667	0.41	1.19	4.8	31.7	84.7	7.33	4.78	53.86
PHY 552 WRF	4413	1610	0.42	1.19	4.6	31.8	84.3	7.17	4.35	54.37
DP 1522 B2XF	4479	1600	0.42	1.16	5.1	31.5	83.9	8.94	4.80	52.47
PHY 496 W3RF	4394	1594	0.42	1.14	5.0	31.5	83.8	7.89	4.85	52.43
DP 1321 B2RF	4455	1578	0.41	1.16	5.0	32.1	83.9	8.71	4.93	52.40
PHY 333 WRF	4344	1570	0.42	1.19	4.8	30.7	84.2	7.01	4.98	53.60
PHY 444 WRF	4362	1569	0.42	1.26	4.4	31.4	84.9	6.83	4.96	54.75
DG 2285 B2RF	4424	1569	0.40	1.18	4.8	30.6	84.3	8.24	5.03	53.98
BX 1531GLT	4113	1557	0.44	1.16	5.0	30.6	83.9	7.14	4.93	52.23
ST 4949GLT	4087	1547	0.44	1.15	5.1	30.3	83.4	7.30	5.15	52.30
PHY 487 WRF	4366	1542	0.41	1.11	5.1	30.3	82.7	8.09	4.77	51.41
DP 1518 B2XF	4548	1541	0.40	1.18	4.6	30.0	83.5	6.89	4.61	53.99
DP 1555 B2RF	4163	1538	0.43	1.19	4.8	32.5	83.4	7.35	4.98	53.63
NG 3405 B2XF	4302	1536	0.42	1.11	4.8	28.0	82.6	7.27	4.97	52.46
DG 3385 B2XF	4332	1533	0.41	1.16	5.0	30.5	84.4	8.42	4.65	52.66
ST 4848GLT	4119	1522	0.43	1.16	5.1	31.2	83.6	7.03	4.96	52.57
DP 1646 B2XF	4211	1512	0.42	1.27	4.7	30.7	84.1	7.71	4.59	54.40
ST 6182GLT	3956	1502	0.44	1.15	4.8	30.1	83.9	7.19	5.11	53.01
NG 3406 B2XF	4263	1493	0.41	1.16	4.8	30.9	84.0	8.45	4.97	53.74
PHY 427 WRF	4372	1482	0.39	1.16	4.8	31.6	83.9	8.29	4.51	53.48
BX 1532GLT	3882	1475	0.44	1.16	4.8	30.3	83.8	6.98	4.85	53.31
SSG UA 222	4419	1475	0.39	1.25	4.9	32.2	84.7	8.16	5.18	53.52
DP 1612 B2XF	4216	1473	0.40	1.20	4.8	32.6	83.9	8.40	4.92	53.91
PHY 495 W3RF	4001	1471	0.43	1.12	4.8	33.4	83.8	8.20	4.70	53.60
DP 1639 B2XF	3958	1468	0.43	1.15	5.0	33.1	83.9	8.34	4.44	52.18
DP 1614 B2XF	3999	1466	0.43	1.19	5.1	30.8	84.1	8.28	4.32	52.35
NG 5007 B2XF	4131	1460	0.41	1.16	4.6	29.3	82.7	7.99	4.71	53.77
DP 1558NR B2RF	3977	1451	0.42	1.19	5.0	33.1	83.9	7.49	5.44	52.49
PHY 499 WRF	3955	1450	0.43	1.15	5.0	33.0	84.2	8.31	4.85	52.71
DP 1538 B2XF	3963	1449	0.43	1.11	4.8	29.9	83.0	8.19	4.69	52.65
CG 3885 B2XF	3811	1440	0.42	1.15	4.8	30.8	83.4	8.19	4.96	53.32
ST 4747GLB2	4218	1438	0.40	1.21	4.9	29.7	83.2	5.73	4.97	53.47
BX 1634GLT	4039	1429	0.41	1.19	5.2	31.7	84.8	5.88	5.02	51.90
PHY 222 WRF	4148	1424	0.40	1.16	5.1	31.4	84.2	8.38	4.81	52.15
ST 5115GLT	4092	1421	0.40	1.16	4.8	32.3	83.4	7.38	5.42	53.21
DG CT 15426 B2RF	3755	1419	0.44	1.15	4.8	30.5	84.3	8.91	5.00	52.89
PHY 339 WRF	4062	1417	0.41	1.18	4.8	31.4	83.8	7.59	4.69	54.09
BX 1638GLT	3986	1414	0.41	1.22	4.8	32.6	83.5	7.04	4.93	53.63
DG CT 15557 B2RF	3811	1401	0.43	1.16	4.9	31.4	84.0	8.07	4.87	52.99
ST 4946GLB2	4035	1393	0.40	1.16	5.1	32.4	84.2	7.74	5.53	52.78
ST 5032GLT	4120	1391	0.39	1.21	4.7	32.5	84.2	7.60	5.06	54.20
DP 1553 B2XF	3730	1332	0.41	1.19	4.6	30.9	83.5	8.15	4.93	54.47

MON 15R513 B2X	3629	1274	0.41	1.19	4.9	31.4	84.5	7.81	4.83	52.75
ST 6448GLB2	3815	1263	0.39	1.21	4.8	29.5	83.0	6.11	4.64	53.72
SSG CT 210	3887	1248	0.37	1.15	5.2	32.4	83.2	7.25	5.29	51.50
DG CT 14515 B2RF	3609	1221	0.40	1.19	4.9	32.4	83.6	7.71	5.05	52.97
BRS 293	3704	1211	0.38	1.16	5.2	33.3	83.7	7.69	5.35	51.88
BRS 335	3574	1123	0.37	1.21	4.9	32.8	83.7	5.87	4.89	53.61
BRS 286	3054	1017	0.38	1.15	4.8	32.3	83.5	6.94	4.64	52.78
Overall Mean	4081	1449	0.41	1.17	4.9	31.4	83.8	7.63	4.89	53.11
LSD(0.05)	768	258	0.01	0.04	0.2	1.0	0.8	0.27	0.34	1.20
C.V. (%)	27	25	4.42	4.55	6.6	4.5	1.4	4.97	9.89	3.22

† Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.



Table 6. One year mean yield performance of varieties cultivated at 4 locations in the Hill region during 2015.

Variety	Seedcotton Yield	Measurement								
		Lint Yield†	Lint	Length	Mic.	Strength	Uniform.	Elong.	Boll Wt.	Loan Value
	(lb/acre)	(lb/acre)	(%)	(in.)	----	(g/tex)	(%)	(%)	(g)	¢/LB
PHY 444 WRF	4347	1655	0.44	1.26	4.5	31.7	84.9	6.82	5.24	54.29
DP 1555 B2RF	4087	1642	0.44	1.20	4.8	32.7	84.3	7.27	4.88	54.26
DP 1538 B2XF	3499	1567	0.44	1.11	4.8	29.3	82.8	8.08	5.08	52.77
DP 1553 B2XF	4116	1564	0.44	1.20	4.7	30.7	84.0	7.96	4.90	54.03
DG CT 15557 B2RF	4011	1561	0.45	1.15	4.9	29.9	83.4	7.79	4.95	53.14
ST 6182GLT	3893	1561	0.46	1.17	4.9	30.1	83.6	7.29	4.97	53.41
PHY 333 WRF	4122	1560	0.43	1.18	4.8	30.5	83.9	7.18	5.25	53.40
ST 4949GLT	3812	1557	0.45	1.13	5.0	30.6	83.7	7.61	5.38	52.74
PHY 499 WRF	4033	1556	0.44	1.14	5.0	32.5	84.1	8.27	5.11	52.48
DP 1646 B2XF	3937	1508	0.44	1.25	4.7	30.1	84.2	7.73	4.54	54.01
DP 1558NR B2RF	3827	1491	0.43	1.21	4.9	33.0	84.7	7.46	5.50	53.64
PHY 339 WRF	4130	1490	0.41	1.17	4.6	31.8	83.7	7.76	5.04	53.96
BX 1638GLT	3996	1488	0.43	1.21	4.7	32.4	83.7	7.19	5.08	53.88
NG 3406 B2XF	3932	1486	0.43	1.13	4.8	30.4	83.7	8.26	5.12	52.57
DG CT 15426 B2RF	3799	1473	0.44	1.14	4.8	30.3	83.6	8.67	5.42	53.45
PHY 552 WRF	3951	1470	0.43	1.16	4.7	32.1	84.0	7.49	4.56	54.03
PHY 496 W3RF	3892	1468	0.43	1.13	5.0	31.7	83.5	8.17	4.99	52.29
ST 4946GLB2	4087	1463	0.41	1.14	5.0	32.3	83.7	7.73	5.71	52.64
PHY 312 WRF	3955	1453	0.42	1.18	4.6	31.7	84.7	7.64	4.89	53.89
PHY 495 W3RF	3782	1449	0.44	1.12	4.7	33.3	84.2	8.40	4.96	53.90
DP 1639 B2XF	3734	1449	0.45	1.16	5.1	32.8	84.3	7.80	4.53	52.36
BX 1634GLT	3982	1444	0.42	1.17	5.0	31.3	84.1	6.54	5.35	52.63
CG 3885 B2XF	3806	1444	0.43	1.15	4.8	30.2	83.6	8.13	4.91	53.71
ST 6448GLB2	4062	1440	0.41	1.22	4.8	29.4	83.2	6.19	4.90	53.39
PHY 487 WRF	4046	1439	0.41	1.13	4.8	30.6	82.9	7.97	4.93	53.33
NG 3405 B2XF	3880	1438	0.43	1.11	4.7	28.3	82.8	7.47	5.28	52.88
DP 1518 B2XF	3961	1429	0.41	1.16	4.5	29.3	83.2	7.07	4.74	53.71
ST 4747GLB2	3964	1425	0.41	1.20	4.7	29.3	82.4	5.99	4.94	53.53
DP 1522 B2XF	3836	1421	0.42	1.14	5.0	31.2	83.3	8.72	4.77	52.45
BX 1531GLT	3281	1403	0.45	1.15	5.0	30.5	83.6	7.42	5.17	52.79
DP 1321 B2RF	3758	1399	0.43	1.15	5.0	31.9	83.9	8.76	4.91	52.49
ST 5115GLT	3879	1394	0.41	1.14	4.6	31.6	82.5	7.56	5.68	52.83
NG 5007 B2XF	3748	1393	0.43	1.16	4.5	29.0	83.1	7.74	4.69	54.04
DP 1612 B2XF	3897	1389	0.41	1.17	4.6	32.2	83.8	8.21	4.85	54.12
MON 15R513 B2XF	3652	1385	0.42	1.18	4.9	30.7	84.1	7.84	4.91	52.73
DG 3385 B2XF	3514	1375	0.43	1.16	4.8	30.4	84.5	8.18	4.93	52.98
DG 2285 B2RF	3607	1353	0.41	1.17	4.6	30.8	84.2	7.93	5.08	53.68
ST 4848GLT	3542	1346	0.43	1.15	5.0	31.2	83.7	7.42	4.99	52.57
SSG UA 222	3761	1333	0.41	1.21	4.9	31.7	84.0	8.30	5.08	53.25
BX 1532GLT	3257	1316	0.46	1.17	4.8	29.9	83.8	7.18	4.66	53.35
DG CT 14515 B2RF	3599	1307	0.41	1.20	4.9	33.0	84.2	7.58	5.75	53.39
ST 5032GLT	3698	1305	0.40	1.19	4.6	31.8	83.6	7.68	5.41	53.66

PHY 222 WRF	3547	1298	0.42	1.14	5.2	31.1	84.4	8.32	5.21	51.78
DP 1614 B2XF	3361	1286	0.44	1.20	5.0	31.6	84.0	8.19	4.36	53.08
PHY 427 WRF	3588	1279	0.41	1.14	4.7	31.6	83.4	8.24	4.67	53.90
SSG CT 210	3523	1206	0.39	1.13	5.1	32.2	83.1	7.29	5.08	52.17
BRS 293	3454	1179	0.39	1.17	5.0	34.2	83.7	7.90	5.50	52.91
BRS 335	3398	1116	0.37	1.19	5.1	32.9	83.2	6.12	5.33	52.74
BRS 286	3176	1089	0.39	1.14	4.9	32.7	83.3	7.06	5.24	52.67
Overall Mean	3790	1419	0.42	1.17	4.8	31.2	83.7	7.66	5.05	53.22
LSD(0.05)	580	211	0.01	0.02	0.3	0.9	0.7	0.39	0.36	1.20
C.V. (%)	22	21	3.11	2.98	9.2	3.9	1.2	7.25	10.19	3.23

† Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.



Table 7. Mean yield performance and fiber characteristics for cotton varieties cultivated on non-irrigated Brooksville silty clay at the Black Belt Branch Experiment Station in Noxubee County, Mississippi in 2015.

Variety	Seedcotton Yield	Measurement								
		Lint Yield†	Lint	Length	Mic.	Strength	Uniform.	Elong.	Boll Wt.	Loan Value
	(lb/acre)	(lb/acre)	(%)	(in.)	----	(g/tex)	(%)	(%)	(g)	¢/LB
PHY 444 WRF	4041	1565	0.44	1.24	4.8	33.4	85.1	6.90	5.48	52.94
DP 1558NR B2RF	4004	1520	0.44	1.19	5.1	32.7	85.1	7.55	5.60	52.48
DG CT 14515 B2RF	4118	1509	0.42	1.18	5.0	32.9	83.8	7.40	5.88	52.45
DG CT 15557 B2RF	3809	1507	0.45	1.13	5.4	30.3	83.5	7.85	5.23	51.24
PHY 333 WRF	3771	1489	0.45	1.14	5.2	31.1	83.4	7.20	5.68	51.35
DP 1555 B2RF	3720	1461	0.45	1.18	5.0	33.5	84.4	7.30	5.05	52.80
DP 1553 B2XF	3720	1451	0.45	1.18	5.0	32.4	83.9	7.38	5.08	53.26
BX 1638GLT	3735	1420	0.44	1.19	5.2	32.5	83.0	7.20	5.30	51.96
PHY 495 W3RF	3654	1418	0.44	1.11	5.0	34.0	83.9	8.38	5.35	52.75
CG 3885 B2XF	3533	1365	0.44	1.13	5.1	31.4	83.6	8.43	5.15	52.49
PHY 552 WRF	3477	1346	0.44	1.12	5.0	33.2	83.6	7.73	4.50	52.44
PHY 499 WRF	3464	1340	0.44	1.14	5.3	33.5	84.1	8.65	5.20	52.03
DP 1639 B2XF	3326	1319	0.45	1.12	5.4	33.2	83.6	7.70	4.60	50.83
ST 5115GLT	3543	1302	0.42	1.10	5.1	31.5	81.2	7.58	5.65	50.93
PHY 487 WRF	3620	1301	0.41	1.12	4.9	30.4	82.8	8.23	5.15	52.79
DP 1518 B2XF	3548	1299	0.42	1.13	5.0	29.7	82.8	6.83	4.95	52.40
ST 6182GLT	3136	1275	0.47	1.13	5.2	30.8	83.0	7.23	5.25	52.03
DP 1646 B2XF	3301	1272	0.44	1.24	4.9	31.1	83.7	7.98	4.28	53.28
PHY 339 WRF	3430	1262	0.42	1.15	4.9	32.7	83.5	8.13	5.23	52.61
DP 1538 B2XF	2470	1237	0.45	1.09	5.2	29.7	82.0	8.25	5.13	50.58
ST 6448GLB2	3369	1219	0.41	1.19	5.1	29.3	83.0	6.00	5.13	52.39
ST 4946GLB2	3252	1212	0.43	1.08	5.5	32.5	82.7	8.28	6.23	49.64
PHY 312 WRF	3183	1202	0.43	1.15	5.1	32.6	84.8	7.40	4.88	52.46
NG 5007 B2XF	3070	1182	0.44	1.14	4.9	28.5	83.0	7.80	4.70	53.39
BX 1634GLT	3202	1173	0.42	1.12	5.4	30.9	83.6	6.35	5.60	51.28
NG 3405 B2XF	3060	1156	0.43	1.08	5.1	28.3	82.2	7.53	5.58	51.23
ST 4949GLT	2868	1151	0.46	1.08	5.7	31.4	83.5	8.13	5.85	50.14
ST 4747GLB2	3210	1150	0.41	1.17	5.0	30.0	81.8	5.83	4.65	51.96
PHY 496 W3RF	2976	1143	0.44	1.13	5.3	32.6	83.7	8.10	4.98	51.70
BRS 293	3385	1139	0.38	1.15	5.0	34.1	83.6	7.88	5.35	52.39
SSG CT 210	3223	1138	0.41	1.09	5.5	31.7	82.4	7.73	5.20	50.70
ST 5032GLT	3070	1131	0.42	1.15	5.0	31.7	83.2	7.70	5.85	51.66
BX 1532GLT	2725	1125	0.47	1.15	5.2	30.3	83.2	7.18	4.78	51.76
BX 1531GLT	2715	1104	0.47	1.12	5.3	31.3	83.3	7.05	4.93	51.79
SSG UA 222	2968	1090	0.42	1.15	5.2	32.2	83.5	8.60	5.28	51.38
DP 1614 B2XF	2831	1086	0.44	1.17	5.4	32.7	83.7	8.80	4.60	51.95
BRS 286	3098	1085	0.40	1.10	5.1	31.9	83.0	7.10	5.10	50.86
BRS 335	3218	1077	0.38	1.17	5.3	33.3	82.7	6.08	5.43	51.93
DP 1321 B2RF	2769	1053	0.44	1.12	5.4	31.8	83.2	9.23	5.10	50.70
DG CT 15426 B2RF	2662	1048	0.45	1.14	5.0	31.3	83.5	8.73	5.43	52.73
MON 15R513 B2XF	2770	1019	0.42	1.15	5.3	31.9	83.0	8.48	5.03	51.20

DP 1522 B2XF	2686	1008	0.43	1.11	5.3	32.3	82.4	9.20	4.98	51.68
NG 3406 B2XF	2553	981	0.44	1.08	5.1	31.0	83.0	8.38	5.28	50.89
ST 4848GLT	2502	971	0.44	1.14	5.3	31.3	83.0	7.43	4.85	50.48
ST 1612 B2XF	2710	964	0.41	1.13	4.6	32.4	82.9	8.48	4.53	53.90
PHY 222 WRF	2439	943	0.44	1.12	5.4	31.8	83.7	8.13	5.08	50.70
DG 3385 B2XF	2208	835	0.43	1.12	4.8	30.0	83.8	8.35	4.50	51.06
DG 2285 B2RF	2224	826	0.42	1.13	4.7	30.8	83.0	8.08	5.05	52.25
PHY 427 WRF	2252	817	0.42	1.12	4.8	32.0	82.7	8.73	4.85	52.78
Overall Mean	3158	1198	0.43	1.14	5.1	31.7	83.3	7.76	5.15	51.84
LSD(0.05)	742	269	0.02	0.04	0.4	1.8	1.2	0.48	0.62	2.34
C.V. (%)	17	16	2.68	2.62	6.1	4.1	1.1	4.45	8.62	3.22

† Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.



Table 8. Mean yield performance and fiber characteristics for cotton varieties cultivated on non-irrigated Dubbs very fine sandy loam on Cliff Heaton Farms in Coahoma county near Clarksdale, MS during 2015.

Variety	Seedcotton Yield	Measurement								
		Lint Yield†	Lint	Length	Mic.	Strength	Uniform.	Elong.	Boll Wt.	Loan Value
	(lb/acre)	(lb/acre)	(%)	(in.)	----	(g/tex)	(%)	(%)	(g)	¢/LB
PHY 552 WRF	5443	2097	0.44	1.14	4.8	31.5	83.7	6.98	4.35	54.53
PHY 444 WRF	5130	1929	0.43	1.22	4.6	31.1	84.4	6.93	5.10	54.70
PHY 312 WRF	5038	1869	0.43	1.16	5.0	31.2	84.1	7.13	4.75	53.18
BX 1531GLT	4659	1861	0.46	1.12	5.4	29.7	83.1	7.18	5.10	50.15
SSG UA 222	5309	1855	0.40	1.20	5.2	32.1	84.2	8.05	5.45	51.74
NG 3405 B2XF	4834	1815	0.43	1.09	5.1	27.2	82.2	7.55	5.13	50.76
ST 6182GLT	4516	1807	0.46	1.12	5.1	28.4	83.2	6.95	5.18	52.19
PHY 427 WRF	4918	1779	0.41	1.12	5.1	30.4	83.5	8.15	4.53	52.14
BX 1532GLT	4472	1774	0.45	1.14	5.0	29.5	83.0	6.78	4.93	53.55
DP 1321 B2RF	4770	1773	0.43	1.14	5.3	31.7	83.8	8.30	4.88	51.50
PHY 499 WRF	4546	1768	0.45	1.11	5.1	32.4	84.0	8.75	4.95	51.73
DP 1646 B2XF	4684	1752	0.43	1.24	5.0	31.7	83.8	8.05	4.60	54.00
DP 1555 B2RF	4558	1737	0.44	1.16	4.9	31.4	82.8	7.30	4.78	53.18
PHY 333 WRF	4425	1723	0.45	1.12	5.2	29.7	83.0	6.68	5.18	51.14
DP 1538 B2XF	4477	1708	0.44	1.08	4.9	29.1	82.1	8.05	4.75	51.28
DP 1558NR B2RF	4600	1703	0.42	1.18	5.1	32.5	84.3	7.55	5.28	52.73
CG 3885 B2XF	4553	1697	0.43	1.15	5.1	31.7	83.4	8.30	5.05	52.55
BX 1638GLT	4459	1692	0.44	1.17	5.1	31.4	82.9	6.60	5.13	52.85
BX 1634GLT	4639	1692	0.42	1.13	5.4	30.7	83.4	5.78	4.98	50.55
DP 1553 B2XF	4521	1688	0.43	1.17	4.8	31.6	83.8	8.28	4.90	54.64
PHY 487 WRF	4595	1687	0.42	1.06	5.3	29.0	81.8	7.88	4.85	48.63
ST 4848GLT	4324	1684	0.45	1.12	5.6	30.5	83.1	6.88	4.93	50.10
DP 1612 B2XF	4743	1673	0.40	1.16	4.9	33.2	83.2	8.30	4.75	53.28
PHY 496 W3RF	4393	1671	0.44	1.10	5.2	30.5	83.5	8.00	4.88	50.65
DG 2285 B2RF	4575	1669	0.42	1.12	5.1	29.5	83.7	8.38	4.95	52.20
NG 5007 B2XF	4565	1667	0.42	1.15	4.7	28.9	82.8	8.28	4.58	54.11
DP 1639 B2XF	4356	1664	0.44	1.13	5.1	33.5	83.2	8.48	4.60	52.51
ST 4949GLT	4188	1662	0.45	1.11	5.5	30.2	83.5	7.23	5.13	49.84
ST 5032GLT	4686	1658	0.41	1.17	5.1	31.8	83.5	7.60	5.20	53.30
ST 4946GLB2	4674	1646	0.40	1.15	5.3	32.8	84.0	7.73	5.80	51.34
DG CT 15557 B2RF	4339	1644	0.43	1.14	5.2	30.8	83.6	8.13	4.83	51.78
PHY 495 W3RF	4363	1636	0.43	1.10	4.8	32.7	83.6	8.25	4.63	53.91
ST 4747GLB2	4647	1626	0.40	1.18	5.0	29.0	82.9	5.65	4.75	52.24
BRS 293	4664	1614	0.40	1.11	5.4	32.2	83.4	7.80	5.43	50.64
DP 1614 B2XF	4282	1613	0.43	1.16	5.4	30.9	83.9	8.25	4.40	51.46
DG CT 15426 B2RF	4152	1612	0.45	1.13	5.3	30.7	84.0	8.80	5.13	51.51
ST 5115GLT	4420	1609	0.42	1.12	5.2	31.6	82.6	7.40	5.13	51.20
NG 3406 B2XF	4371	1606	0.42	1.14	5.1	30.2	83.5	7.90	4.78	51.70
DG 3385 B2XF	4329	1601	0.42	1.12	5.3	30.6	84.5	8.43	4.68	50.99
DP 1522 B2XF	4307	1588	0.42	1.13	5.4	31.1	83.5	9.15	5.00	50.73
PHY 339 WRF	4361	1586	0.42	1.15	4.9	31.0	83.6	7.45	4.95	53.76

DP 1518 B2XF	4386	1553	0.41	1.10	4.8	27.6	82.3	6.88	4.58	52.95
ST 6448GLB2	4432	1549	0.40	1.18	4.9	28.6	83.0	5.98	4.68	53.53
PHY 222 WRF	4260	1548	0.42	1.13	5.2	31.5	83.6	8.48	4.85	51.81
SSG CT 210	4413	1495	0.39	1.09	5.4	31.1	81.8	7.38	5.05	49.45
BRS 335	4524	1486	0.38	1.14	5.2	31.1	82.5	5.65	5.10	52.04
BRS 286	4265	1471	0.39	1.12	5.2	31.7	83.4	6.78	4.65	51.96
MON 15R513 B2XF	3807	1410	0.42	1.17	5.3	31.7	83.6	7.95	4.78	51.49
DG CT 14515 B2RF	4041	1403	0.40	1.18	5.2	32.5	83.2	7.63	4.90	51.65
Overall Mean	4531	1674	0.42	1.14	5.1	30.8	83.3	7.59	4.91	52.04
LSD(0.05)	590	222	0.01	0.03	0.2	1.6	1.1	0.47	0.49	1.83
C.V. (%)	9	10	1.75	1.91	3.4	3.7	0.9	4.46	7.09	2.51

† Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.



Table 9. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Falaya Silt loam on Pace Perry Farms in Tate county near Senatobia, MS during 2015.

Variety	Measurement									
	Seedcotton Yield	Lint Yield†	Lint	Length	Mic.	Strength	Uniform.	Elong.	Boll Wt.	Loan Value
	(lb/acre)	(lb/acre)	(%)	(in.)	---	(g/tex)	(%)	(%)	(g)	¢/LB
PHY 499 WRF	4922	1908	0.44	1.13	5.3	32.2	84.0	7.95	4.93	51.45
DP 1555 B2RF	4315	1888	0.44	1.20	4.9	32.7	84.6	7.15	4.80	54.76
MON 15R513 B2XF	4484	1849	0.42	1.20	5.1	31.2	85.0	7.23	5.10	52.70
DP 1522 B2XF	4947	1829	0.42	1.15	5.1	31.4	83.1	8.58	4.63	52.18
ST 4946GLB2	5092	1825	0.41	1.16	5.3	33.7	84.3	7.38	5.28	52.66
NG 3406 B2XF	4876	1821	0.43	1.16	4.9	30.6	84.4	8.13	5.10	52.63
PHY 444 WRF	4886	1818	0.43	1.24	4.6	31.0	84.7	6.50	4.93	54.68
ST 4949GLT	4063	1803	0.44	1.15	5.1	30.4	84.1	7.05	5.33	52.10
ST 6182GLT	4548	1795	0.45	1.17	5.0	30.4	83.6	6.68	4.98	52.73
PHY 333 WRF	4863	1791	0.42	1.19	4.6	31.2	84.7	6.88	5.43	54.11
DP 1646 B2XF	4792	1784	0.43	1.27	4.8	31.1	85.0	7.23	4.65	54.04
BX 1634GLT	4926	1755	0.41	1.19	5.2	32.0	84.0	5.75	5.13	52.68
PHY 496 W3RF	4656	1730	0.43	1.14	5.2	31.7	84.0	7.88	5.00	51.80
DP 1518 B2XF	4827	1728	0.41	1.17	4.6	30.1	84.3	6.80	4.80	53.89
PHY 312 WRF	4724	1696	0.41	1.20	4.7	32.1	84.2	7.28	4.58	54.74
PHY 339 WRF	4736	1696	0.41	1.18	4.7	32.1	84.0	7.23	5.10	54.00
DP 1612 B2XF	4802	1694	0.40	1.20	4.8	33.0	84.6	7.90	4.48	53.78
PHY 487 WRF	4808	1691	0.40	1.14	4.9	30.9	83.3	7.80	4.80	53.40
DP 1321 B2RF	4575	1685	0.42	1.16	5.0	33.1	84.3	8.35	4.35	53.01
ST 5115GLT	4639	1678	0.41	1.17	4.9	32.8	83.8	7.40	5.85	53.01
DG 3385 B2XF	4560	1667	0.42	1.19	4.8	31.1	84.8	7.90	5.13	54.55
PHY 495 W3RF	4400	1661	0.43	1.14	4.7	33.7	84.7	7.93	4.70	54.03
DG CT 15426 B2RF	4386	1657	0.43	1.16	5.0	31.4	84.2	8.60	5.80	53.26
PHY 552 WRF	4527	1654	0.42	1.14	4.8	31.0	83.2	7.05	4.60	54.25
DP 1553 B2XF	4423	1621	0.42	1.21	4.7	31.3	84.0	7.88	4.50	53.95
ST 4747GLB2	4663	1621	0.40	1.22	4.8	30.3	83.4	5.50	5.13	54.46
BX 1638GLT	4409	1619	0.42	1.21	4.8	33.5	84.1	6.93	5.25	54.08
ST 5032GLT	4628	1618	0.40	1.19	4.9	32.7	83.8	7.48	5.33	54.04
ST 6448GLB2	4568	1599	0.40	1.23	5.0	30.7	84.2	5.88	4.48	52.59
DP 1538 B2XF	3613	1597	0.43	1.12	5.0	29.9	83.2	7.88	5.55	52.70
NG 3405 B2XF	4374	1594	0.42	1.13	4.7	28.9	83.3	6.98	5.25	53.48
ST 4848GLT	4327	1591	0.42	1.16	5.2	31.6	84.0	7.23	5.10	52.08
PHY 427 WRF	4474	1583	0.41	1.15	4.7	32.0	83.7	7.80	4.33	53.91
DG CT 15557 B2RF	4177	1582	0.44	1.17	5.0	31.1	83.9	7.50	4.75	53.56
DG 2285 B2RF	4571	1581	0.40	1.20	4.6	30.9	84.4	7.48	5.03	54.63
PHY 222 WRF	4298	1539	0.41	1.14	5.2	31.6	84.9	7.78	5.28	51.38
BX 1531GLT	2900	1517	0.44	1.17	5.1	31.3	83.6	7.23	5.40	52.70
DP 1614 B2XF	4038	1511	0.43	1.24	4.9	31.9	84.9	7.80	4.48	54.14
DP 1639 B2XF	3986	1479	0.43	1.18	5.2	33.7	84.9	7.78	4.45	52.18
DP 1558NR B2RF	3344	1409	0.42	1.21	5.1	33.7	84.5	6.90	5.65	53.11
NG 5007 B2XF	3919	1377	0.40	1.20	4.2	30.3	83.8	7.48	4.58	54.51

CG 3885 B2XF	3743	1373	0.42	1.18	4.9	30.5	84.4	7.65	4.68	53.88
BX 1532GLT	3382	1333	0.45	1.18	5.0	30.9	84.4	6.45	4.70	52.90
SSG UA 222	3869	1326	0.39	1.26	5.0	33.2	84.6	7.90	4.85	53.78
DG CT 14515 B2RF	3597	1248	0.40	1.23	5.2	34.0	84.8	7.48	5.85	52.83
SSG CT210	3418	1113	0.37	1.16	5.2	33.0	83.7	6.75	5.10	52.64
BRS 293	3240	1091	0.39	1.18	5.3	35.3	83.4	7.58	5.75	51.84
BRS 335	2878	894	0.35	1.22	5.2	33.2	83.7	5.48	5.48	52.11
BRS 286	2698	874	0.37	1.18	5.2	33.7	84.3	6.53	5.10	52.46
Overall Mean	4283	1587	0.42	1.18	4.9	31.8	84.1	7.30	5.01	53.27
LSD(0.05)	749	215	0.02	0.04	0.4	1.4	1.3	0.51	0.86	1.90
C.V. (%)	13	10	2.62	2.22	0.6	3.2	1.1	4.98	12.24	2.55

† Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.



Table 10. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Marietta Fine Sandy loam on the Main Campus of MSU in Oktibbeha county near Starkville, MS in 2015.

Variety	Measurement									
	Seedcotton Yield	Lint Yield†	Lint	Length	Mic.	Strength	Uniform.	Elong.	Boll Wt.	Loan Value
	(lb/acre)	(lb/acre)	(%)	(in.)	----	(g/tex)	(%)	(%)	(g)	¢/LB
ST 4949GLT	3822	1700	0.44	1.15	4.5	30.6	83.6	7.65	5.13	54.41
DP 1538 B2XF	3391	1580	0.44	1.15	4.4	28.9	83.3	8.00	4.98	54.18
NG 3406 B2XF	3964	1499	0.43	1.15	4.3	29.9	83.5	8.25	4.68	54.41
PHY 496 W3RF	3890	1445	0.43	1.15	4.5	30.7	83.5	8.23	4.80	54.44
PHY 339 WRF	4057	1435	0.41	1.18	4.1	31.2	83.7	7.60	4.73	54.64
DP 1553 B2XF	3786	1431	0.43	1.22	4.4	29.5	83.9	8.18	5.10	54.45
ST 6448GLB2	3970	1406	0.41	1.24	4.3	28.5	82.5	5.98	5.13	54.31
DG CT 15557 B2RF	3578	1372	0.44	1.16	4.6	29.1	83.4	7.85	5.00	53.64
NG 3405 B2XF	3706	1359	0.42	1.13	4.2	28.2	82.5	7.50	5.00	54.12
DG CT 15426 B2RF	3530	1359	0.44	1.16	4.5	29.0	83.5	8.90	5.20	54.29
NG 5007 B2XF	3628	1354	0.43	1.17	4.3	28.9	82.5	8.08	4.58	54.16
DP 1555 B2RF	3508	1353	0.44	1.23	4.5	32.4	84.2	7.45	4.90	54.75
ST 6182GLT	3377	1345	0.46	1.18	4.5	29.5	83.6	7.35	4.55	54.40
CG 3885 B2XF	3540	1332	0.43	1.16	4.6	30.0	83.0	8.20	4.98	54.31
PHY 444 WRF	3582	1332	0.43	1.31	4.0	31.4	84.9	6.88	4.93	54.84
DP 1646 B2XF	3418	1331	0.45	1.25	4.4	29.2	84.2	7.78	4.55	54.46
DP 1558NR B2RF	3469	1318	0.44	1.22	4.5	32.4	84.4	7.58	5.13	54.76
PHY 333 WRF	3457	1281	0.42	1.20	4.5	29.6	83.5	6.85	4.60	53.78
DP 1639 B2XF	3238	1274	0.45	1.18	4.7	32.2	83.9	8.13	4.30	54.01
BX 1531GLT	3214	1263	0.45	1.16	4.5	29.3	83.1	7.53	5.05	54.24
DG 2285 B2RF	3537	1263	0.41	1.20	4.2	30.9	84.5	8.18	4.90	54.65
BX 1638GLT	3506	1262	0.41	1.25	4.3	31.5	83.8	7.33	4.73	54.79
DP 1522 B2XF	3403	1247	0.42	1.17	4.4	30.8	84.2	8.63	4.70	54.61
SSG UA 222	3559	1236	0.40	1.24	4.3	30.5	84.0	8.30	4.95	54.58
PHY 499 WRF	3294	1232	0.43	1.17	4.5	32.7	84.2	8.45	4.95	54.70
ST 4946GLB2	3444	1204	0.40	1.17	4.4	31.0	83.3	7.63	5.68	54.60
DP 1321 B2RF	3296	1199	0.42	1.18	4.5	31.7	83.6	8.70	4.98	54.65
ST 4747GLB2	3336	1196	0.41	1.23	4.1	28.9	82.6	5.63	4.70	54.29
PHY 552 WRF	3341	1190	0.41	1.21	4.1	31.7	84.2	7.18	4.40	54.71
PHY 222 WRF	3277	1179	0.41	1.17	4.9	30.3	84.8	8.75	5.00	53.46
DG 3385 B2XF	3146	1176	0.43	1.19	4.4	30.3	84.9	8.55	4.95	54.60
DP 1612 B2XF	3351	1175	0.40	1.21	4.0	31.6	84.1	8.20	4.78	54.85
PHY 312 WRF	3282	1174	0.41	1.22	3.8	31.0	84.6	7.70	4.85	54.36
PHY 495 W3RF	3092	1154	0.43	1.14	4.3	33.3	84.4	8.65	4.88	54.71
BRS 335	3475	1146	0.38	1.20	4.7	33.2	83.0	6.20	4.95	54.61
BX 1634GLT	3186	1131	0.41	1.22	4.4	30.6	85.4	6.50	5.13	54.69
BRS 286	3247	1113	0.39	1.15	4.5	33.4	83.2	7.10	5.18	54.58
PHY 487 WRF	3241	1113	0.39	1.17	4.3	31.3	83.2	8.18	4.70	54.55
PHY 427 WRF	3182	1080	0.39	1.18	4.3	31.1	83.8	8.08	4.68	54.66
SSG CT 210	3157	1065	0.39	1.16	4.5	33.1	83.2	7.53	4.68	53.90
ST 4848GLT	2801	1047	0.43	1.18	4.5	31.2	83.7	7.45	4.85	54.60

MON 15R513 B2XF	2935	1029	0.40	1.22	4.2	29.7	84.2	7.65	4.83	54.56
BX 1532GLT	2556	1023	0.46	1.18	4.1	28.9	83.7	7.30	4.58	54.41
DG CT 14515 B2RF	2774	1004	0.41	1.22	4.3	32.6	84.0	7.60	5.43	54.85
DP 1614 B2XF	2619	996	0.44	1.23	4.4	31.3	83.5	8.68	3.88	54.64
ST 5115GLT	2868	994	0.40	1.15	3.6	30.5	82.1	7.58	4.88	52.94
BRS 293	2907	981	0.39	1.19	4.5	34.2	83.9	7.60	5.20	54.76
DP 1518 B2XF	2781	978	0.40	1.20	3.9	28.9	83.1	7.15	4.43	54.38
ST 5032GLT	2560	879	0.39	1.23	3.9	31.0	83.4	7.65	4.73	54.26
Overall Mean	3332	1225	0.42	1.19	4.3	30.8	83.7	7.72	4.85	54.42
LSD(0.05)	706	249	0.01	0.03	0.4	1.6	1.2	0.42	0.62	0.86
C.V. (%)	15	14	1.57	2.08	5.9	3.6	1.0	3.86	9.17	1.12

† Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.



Table 11. Mean yield performance and fiber characteristics for cotton varieties cultivated on an irrigated Commerce very fine sandy loam at the Delta Research and Extension Center in Washington county near Stoneville, MS during 2015.

Variety	Measurement									
	Seedcotton Yield	Lint Yield†	Lint	Length	Mic.	Strength	Uniform.	Elong.	Boll Wt.	Loan Value
	(lb/acre)	(lb/acre)	(%)	(in.)	---	(g/tex)	(%)	(%)	(g)	¢/LB
ST 4949GLT	5986	2153	0.44	1.18	5.0	30.8	83.40	7.50	5.23	52.89
PHY 552 WRF	5973	2094	0.42	1.21	4.6	32.7	84.98	7.23	4.68	54.76
DP 1321 B2RF	6141	2063	0.41	1.19	5.1	32.7	85.15	8.68	5.20	52.46
DP 1522 B2XF	5881	2024	0.42	1.21	5.2	33.5	85.23	8.73	5.03	52.24
DP 1555 B2RF	5683	2022	0.43	1.22	5.0	33.8	83.95	7.20	5.25	53.44
DP 1639 B2XF	4885	1998	0.42	1.19	5.3	34.7	84.95	8.03	4.65	51.20
PHY 496 W3RF	5807	1997	0.42	1.19	5.0	33.4	84.83	8.08	5.05	53.14
PHY 333 WRF	5800	1976	0.41	1.22	4.9	32.3	85.30	7.45	5.35	54.21
PHY 312 WRF	5873	1968	0.40	1.22	5.1	33.2	86.15	7.53	4.90	53.01
ST 4848GLT	5471	1958	0.43	1.19	5.4	32.4	84.75	7.05	5.13	51.39
DP 1646 B2XF	5641	1944	0.42	1.29	4.8	31.1	85.48	7.55	5.00	54.71
PHY 495 W3RF	5458	1910	0.42	1.17	5.0	35.1	84.95	8.10	4.80	53.75
DP 1558NR B2RF	5441	1881	0.42	1.21	5.3	34.6	84.65	7.45	5.98	51.88
BX 1638GLT	5493	1873	0.41	1.24	5.1	33.4	84.85	7.53	5.43	52.24
DP 1518 B2XF	5770	1846	0.39	1.22	4.8	31.7	84.25	6.80	5.08	54.09
ST 1614 B2XF	5239	1840	0.42	1.23	5.4	32.2	85.33	8.13	4.30	51.15
ST 6182GLT	5026	1826	0.44	1.18	5.0	32.3	85.28	7.73	5.23	54.08
BX 1634GLT	5311	1818	0.41	1.22	5.3	32.6	85.43	5.83	5.15	51.53
PHY 487 WRF	5693	1797	0.41	1.16	5.1	31.4	83.98	8.25	5.18	53.56
NG 3406 B2XF	5336	1790	0.40	1.18	4.8	32.6	84.80	8.85	5.40	54.75
DG 3385 B2XF	5296	1787	0.41	1.20	5.2	31.2	85.48	8.70	5.18	51.78
PHY 444 WRF	5253	1786	0.41	1.29	4.5	32.8	86.13	6.95	5.05	54.96
PHY 427 WRF	5403	1783	0.40	1.17	5.1	32.9	84.75	8.43	4.50	52.80
ST 4747GLB2	5417	1777	0.40	1.24	5.0	30.2	83.85	5.83	5.15	53.88
ST 5115GLT	5288	1765	0.40	1.18	5.0	33.7	84.45	7.15	5.48	53.06
DG 2285 B2RF	5356	1759	0.40	1.22	4.9	32.1	85.18	8.30	5.35	54.70
PHY 499 WRF	5111	1750	0.41	1.17	5.1	34.7	85.03	7.90	5.08	52.18
SSG UA 222	5450	1739	0.39	1.27	5.0	32.4	85.53	8.08	5.25	53.56
BX 1532GLT	4647	1736	0.45	1.20	5.0	32.2	85.23	7.00	5.18	53.54
NG 5007 B2XF	5022	1725	0.41	1.19	4.6	30.2	84.35	7.88	4.70	54.49
PHY 222 WRF	5209	1713	0.40	1.18	5.1	31.8	84.83	8.63	4.83	52.73
DP 1538 B2XF	4861	1711	0.43	1.13	5.1	31.1	83.58	8.05	5.08	52.34
NG 3405 B2XF	5066	1708	0.41	1.14	4.9	29.1	83.95	7.28	5.10	54.26
MON 15R513 B2XF	5005	1692	0.41	1.21	5.1	32.3	85.55	7.75	5.10	52.53
DP 1612 B2XF	5190	1686	0.39	1.23	4.9	33.8	84.90	8.50	5.08	53.51
BX 1531GLT	4650	1680	0.44	1.19	5.2	32.3	84.88	7.28	5.30	52.45
DG CT 15557 B2RF	4646	1674	0.44	1.17	5.2	32.6	84.68	8.10	5.10	51.76
PHY 339 WRF	5006	1657	0.40	1.21	4.9	33.0	84.88	7.53	4.83	54.16
DG CT 15426 B2RF	4568	1619	0.43	1.19	4.8	31.4	85.45	8.43	5.65	54.78
CG 3885 B2XF	4617	1618	0.42	1.19	5.0	31.8	84.90	8.25	5.08	54.04
ST 5032GLT	4995	1604	0.39	1.23	4.9	34.4	85.03	7.58	5.63	54.20

DP 1553 B2XF	4642	1582	0.41	1.20	4.7	31.6	84.58	8.00	5.40	54.65
DG CT 14515 B2RF	4620	1476	0.39	1.25	5.0	33.2	84.83	7.63	5.35	54.18
BRS 293	4728	1470	0.38	1.20	5.4	34.6	84.65	7.40	5.93	51.11
SSG CT 210	4737	1432	0.37	1.19	5.3	33.1	83.78	7.10	5.58	51.35
ST 4946GLB2	4851	1419	0.41	1.18	5.2	32.9	85.05	7.80	5.48	52.44
ST 6448GLB2	4277	1326	0.38	1.26	4.8	30.6	83.30	6.15	4.80	54.45
BRS 335	4361	1287	0.36	1.27	4.8	34.2	84.83	5.93	5.45	54.83
BRS 286	3325	1280	0.39	1.17	4.9	33.2	84.45	7.05	5.00	54.00
Overall Mean	5174	1758	0.41	1.20	5.0	32.6	84.81	7.64	5.15	53.25
LSD(0.05)	864	269	0.02	0.04	0.3	1.9	1.16	0.52	0.45	1.70
C.V. (%)	12	11	3.72	2.32	3.6	4.1	0.98	4.85	6.23	2.28

† Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.



Table 12. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Sharkey clay on George Perry Farms in Tunica county near Tunica, MS during 2015.

Variety	Measurement									
	Seedcotton Yield	Lint Yield†	Lint	Length	Mic.	Strength	Uniform.	Elong.	Boll Wt.	Loan Value
	(lb/acre)	(lb/acre)	(%)	(in.)	----	(g/tex)	(%)	(%)	(g)	¢/LB
DG 3385 B2XF	4741	1652	0.40	1.20	4.7	30.2	84.4	8.70	4.37	54.55
DP 1518 B2XF	4750	1594	0.38	1.24	4.3	30.5	84.3	7.13	4.57	54.73
PHY 487 WRF	4510	1577	0.40	1.19	5.1	30.8	84.0	7.93	4.67	52.85
BX 1531GLT	4277	1563	0.42	1.20	4.3	29.8	83.7	7.20	3.83	54.48
PHY 496 W3RF	4227	1536	0.42	1.21	4.9	31.7	84.3	7.65	4.73	54.08
PHY 312 WRF	3944	1481	0.40	1.23	4.4	30.6	84.1	7.25	4.63	54.59
DG 2285 B2RF	3895	1468	0.38	1.21	4.6	30.1	84.0	8.48	4.48	54.51
NG 3405 B2XF	4121	1441	0.40	1.16	4.5	28.6	82.9	7.18	4.80	54.16
DP 1612 B2XF	3759	1418	0.39	1.26	4.6	31.7	84.5	8.50	4.80	54.78
PHY 444 WRF	4021	1408	0.40	1.33	4.1	30.8	85.3	6.88	5.10	54.75
DP 1522 B2XF	4006	1403	0.40	1.22	4.9	30.5	84.0	8.85	4.48	54.58
NG 3406 B2XF	4106	1402	0.39	1.20	4.6	30.2	84.3	8.58	4.50	54.51
NG 5007 B2XF	4058	1401	0.40	1.20	4.3	29.1	82.8	8.13	4.63	54.35
DP 1639 B2XF	3767	1373	0.42	1.20	4.7	32.6	84.3	8.43	4.28	54.74
CG 3885 B2XF	3102	1372	0.39	1.19	4.3	30.2	83.6	8.10	5.03	54.50
SSG CT 210	4255	1372	0.37	1.18	5.0	32.9	83.9	7.18	5.28	53.69
PHY 339 WRF	3903	1350	0.39	1.22	4.6	30.8	84.2	7.90	4.25	54.63
ST 6448GLB2	4128	1340	0.37	1.27	4.6	29.8	82.8	6.20	4.53	54.30
PHY 427 WRF	4160	1335	0.37	1.24	4.5	31.7	84.0	8.25	4.70	54.70
ST 6182GLT	3635	1325	0.42	1.20	4.4	30.3	84.6	7.30	4.88	54.51
DP 1614 B2XF	3473	1275	0.42	1.25	4.7	30.3	84.2	8.15	4.33	54.49
PHY 552 WRF	3555	1268	0.41	1.25	4.4	31.4	85.1	7.15	4.10	54.79
PHY 222 WRF	3780	1258	0.38	1.20	5.1	31.0	84.5	8.23	4.63	52.64
ST 4946GLB2	3724	1253	0.39	1.20	4.9	31.0	84.1	7.70	5.65	54.53
DP 1646 B2XF	3654	1252	0.39	1.35	4.3	30.3	84.7	7.78	4.78	54.61
ST 4848GLT	3399	1247	0.42	1.20	4.8	30.8	83.7	7.08	5.18	54.55
DP 1558NR B2RF	3207	1245	0.39	1.26	4.4	32.8	84.1	7.43	5.43	54.78
DP 1538 B2XF	3507	1244	0.41	1.16	4.4	30.3	83.5	8.65	4.15	54.40
PHY 499 WRF	3397	1227	0.41	1.20	4.9	33.0	84.4	8.20	4.85	53.10
ST 4747GLB2	3602	1208	0.38	1.25	4.8	29.9	83.3	5.83	5.00	54.35
BX 1634GLT	3435	1195	0.40	1.25	4.9	31.7	85.9	6.20	5.03	53.60
DG CT 15426 B2RF	3061	1193	0.44	1.18	4.3	29.7	84.0	9.43	4.78	54.44
DG CT 14515 B2RF	3520	1192	0.39	1.26	4.4	32.5	83.9	7.67	4.53	54.77
PHY 495 W3RF	3263	1191	0.42	1.17	4.7	33.2	84.0	8.38	4.55	54.66
ST 5115GLT	3506	1179	0.39	1.20	4.6	32.7	84.0	7.55	5.50	54.64
DP 1555 B2RF	3266	1172	0.41	1.27	4.3	32.7	84.8	7.60	4.90	54.85
ST 5032GLT	3586	1170	0.37	1.26	4.5	32.1	84.6	7.65	4.43	54.76
BX 1532GLT	3050	1165	0.44	1.22	4.3	29.6	84.0	7.07	4.70	54.47
DP 1321 B2RF	3276	1124	0.40	1.21	4.6	32.1	83.5	8.95	4.40	54.00
ST 4949GLT	2866	1109	0.44	1.19	5.0	30.5	83.7	7.20	5.08	53.19
SSG UA 222	3385	1104	0.37	1.29	4.9	31.7	84.9	8.28	5.20	54.69

BX 1638GLT	3219	1101	0.39	1.29	4.3	32.3	84.0	7.30	4.40	54.80
DG CT 15557 B2RF	3122	1082	0.40	1.23	4.1	30.2	84.3	8.53	4.33	54.57
MON 15R513 B2XF	3068	1041	0.39	1.26	4.4	30.6	85.1	7.80	4.83	54.69
BRS 335	3269	1033	0.36	1.26	4.6	32.4	84.0	5.83	4.37	54.82
DP 1553 B2XF	2984	1032	0.40	1.23	4.2	30.2	83.5	8.45	4.58	54.50
PHY 333 WRF	3757	1030	0.40	1.25	4.5	30.3	84.6	6.93	4.50	54.59
BRS 293	3238	1019	0.36	1.22	4.7	33.8	84.1	7.75	5.05	54.80
BRS 286	2545	801	0.36	1.21	4.4	33.0	83.5	6.70	4.48	54.69
Overall Mean	3627	1267	0.40	1.22	4.6	31.1	84.1	7.73	4.70	54.40
LSD(0.05)	1257	397	0.02	0.03	0.3	1.5	1.2	0.46	0.81	0.94
C.V. (%)	24	21	3.52	1.94	4.7	3.2	1.0	4.04	11.87	1.18

† Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.



Table 13. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Leeper silty loam at the North Mississippi Research and Extension Center in Lee county near Verona, MS during 2015.

Variety	Measurement									
	Seedcotton Yield	Lint Yield†	Lint	Length	Mic.	Strength	Uniform.	Elong.	Boll Wt.	Loan Value
	(lb/acre)	(lb/acre)	(%)	(in.)	----	(g/tex)	(%)	(%)	(g)	¢/LB
PHY 444 WRF	4880	1908	0.45	1.24	4.5	31.1	84.8	7.00	5.63	54.71
DP 1555 B2RF	4803	1869	0.45	1.22	4.7	32.2	84.0	7.18	4.78	54.74
ST 6182GLT	4510	1830	0.46	1.19	4.9	29.9	84.4	7.90	5.10	54.48
ST 4949GLT	4493	1799	0.46	1.14	4.8	29.9	83.6	7.63	5.23	54.30
DG CT 15557 B2RF	4478	1786	0.46	1.14	4.8	29.1	82.9	7.95	4.83	54.14
BX 1532GLT	4366	1784	0.47	1.16	4.7	29.7	84.1	7.80	4.58	54.34
ST 4848GLT	4536	1778	0.45	1.14	5.1	30.5	84.1	7.58	5.15	53.11
DP 1538 B2XF	4522	1773	0.45	1.10	4.8	28.8	82.6	8.18	4.68	53.61
DP 1553 B2XF	4535	1753	0.44	1.19	4.7	29.6	84.3	8.43	4.93	54.44
PHY 499 WRF	4452	1742	0.45	1.12	5.1	31.7	83.9	8.03	5.35	51.74
PHY 312 WRF	4630	1740	0.43	1.17	5.0	31.0	85.2	8.20	5.25	54.00
ST 4747GLB2	4646	1735	0.43	1.16	4.8	28.1	81.6	7.03	5.28	53.41
BX 1531GLT	4296	1730	0.46	1.15	5.0	30.2	84.3	7.88	5.30	52.43
DP 1639 B2XF	4384	1724	0.45	1.17	5.2	32.0	84.9	7.60	4.75	52.43
DG CT 15426 B2RF	4333	1721	0.46	1.12	4.8	29.8	83.3	8.45	5.25	53.35
DP 1612 B2XF	4725	1721	0.42	1.16	4.9	31.9	83.8	8.25	5.63	53.95
BX 1634GLT	4616	1718	0.43	1.17	5.2	31.6	83.7	7.55	5.55	51.89
DP 1558NR B2RF	4492	1716	0.44	1.20	4.9	33.3	85.0	7.83	5.63	54.21
DP 1518 B2XF	4689	1713	0.42	1.15	4.6	28.7	82.8	7.50	4.78	54.16
CG 3885 B2XF	4408	1706	0.44	1.14	4.7	29.1	83.4	8.23	4.85	54.18
PHY 552 WRF	4459	1690	0.43	1.18	4.7	32.6	84.9	8.03	4.75	54.74
SSG UA 222	4647	1680	0.41	1.21	5.0	30.9	84.1	8.40	5.23	53.29
PHY 333 WRF	4398	1677	0.44	1.17	4.8	30.1	83.9	7.80	5.30	54.38
DP 1321 B2RF	4393	1661	0.43	1.14	5.3	31.1	84.6	8.75	5.20	51.59
NG 5007 B2XF	4374	1658	0.43	1.15	4.7	28.3	83.0	7.60	4.93	54.11
BRS 293	4282	1652	0.40	1.15	5.1	33.2	84.0	8.55	5.70	52.65
PHY 487 WRF	4515	1651	0.42	1.11	5.0	29.7	82.4	7.68	5.08	52.59
BX 1638GLT	4335	1651	0.44	1.21	4.8	32.2	83.7	7.33	5.03	54.69
DP 1646 B2XF	4236	1644	0.44	1.24	4.8	29.2	83.7	7.95	4.68	54.28
NG 3405 B2XF	4380	1642	0.43	1.11	4.9	28.0	83.0	7.88	5.28	53.00
NG 3406 B2XF	4335	1642	0.43	1.13	5.1	30.1	83.8	8.30	5.43	52.36
MON 15R513 B2XF	4419	1641	0.43	1.16	5.0	29.9	84.3	8.03	4.68	52.48
PHY 427 WRF	4442	1635	0.42	1.13	4.9	31.2	83.7	8.35	4.83	54.24
ST 4946GLB2	4560	1611	0.40	1.16	5.0	32.2	84.4	7.65	5.65	53.66
ST 5115GLT	4466	1605	0.41	1.15	4.7	31.6	83.1	7.68	6.33	54.44
DP 1522 B2XF	4307	1599	0.43	1.14	5.2	30.3	83.5	8.48	4.78	51.35
ST 5032GLT	4534	1590	0.40	1.20	4.6	31.9	84.2	7.90	5.75	54.68
DG 3385 B2XF	4144	1584	0.44	1.14	5.1	30.0	84.6	7.93	5.15	51.73
DG CT 14515 B2RF	3907	1580	0.43	1.19	5.0	32.7	84.3	7.85	5.85	53.45
PHY 339 WRF	4296	1568	0.42	1.17	4.7	31.2	83.7	8.08	5.13	54.58
PHY 495 W3RF	3981	1564	0.45	1.11	4.8	32.4	84.1	8.65	4.90	54.11

PHY 496 W3RF	4047	1555	0.44	1.10	5.2	31.7	82.8	8.48	5.18	51.21
DP 1614 B2XF	3958	1551	0.45	1.18	5.2	30.4	84.1	7.48	4.48	51.59
ST 6448GLB2	4342	1535	0.41	1.23	4.8	29.1	83.3	6.93	4.88	54.26
PHY 222 WRF	4172	1530	0.42	1.14	5.3	30.8	84.3	8.63	5.48	51.58
DG 2285 B2RF	4097	1511	0.42	1.15	5.0	30.4	84.8	8.00	5.33	53.21
SSG CT 210	4295	1507	0.40	1.12	5.2	30.9	83.3	7.15	5.33	51.44
BRS 335	4022	1349	0.38	1.18	5.2	32.1	83.6	6.73	5.45	52.33
BRS 286	3661	1283	0.40	1.13	4.9	31.7	82.9	7.50	5.58	52.76
Overall Mean	4384	1659	0.43	1.16	4.9	30.7	83.8	7.87	5.19	53.35
LSD(0.05)	456	170	0.01	0.02	0.2	1.2	1.1	1.09	0.55	1.46
C.V. (%)	7	7	1.26	1.51	3.2	2.8	0.9	9.89	7.61	1.97

† Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.



Table 14. Mean yield performance and fiber characteristics for cotton varieties cultivated on an irrigated Adler/Morganfield silt loam soil at George Cunningham Farms in Yazoo County near Eden, MS during 2015.

Variety	Measurement									
	Seedcotton Yield	Lint Yield†	Lint	Length	Mic.	Strength	Uniform	Elong	Boll Wt.	Loan Value
	(lb/acre)	(lb/acre)	(%)	(in.)	----	(g/tex)	(%)	(%)	(g)	¢/LB
DP 1522 B2XF	3723	1386	0.43	1.11	4.9	31.0	83.0	9.0	4.70	52.34
DG 2285 B2RF	3871	1380	0.41	1.17	4.8	30.7	84.2	7.8	5.33	54.51
DP 1321 B2RF	3634	1353	0.43	1.13	5.1	32.0	83.4	8.9	5.25	51.64
PHY 312 WRF	3666	1349	0.42	1.17	4.7	31.7	84.4	7.4	4.83	54.68
PHY 333 WRF	3393	1270	0.43	1.16	4.7	30.5	83.9	7.0	4.90	54.45
ST 4949GLT	3306	1266	0.44	1.13	4.8	29.9	83.1	7.3	5.18	53.30
DG CT 15426 B2RF	3240	1253	0.44	1.09	4.9	30.5	83.6	9.0	4.45	50.85
SSG UA 222	3533	1204	0.39	1.22	4.4	32.5	84.0	8.2	4.80	54.08
ST 4848GLT	3284	1200	0.42	1.14	4.7	31.0	83.1	7.1	4.63	54.24
DP 1518 B2XF	3336	1186	0.41	1.17	4.5	30.2	83.4	6.8	4.20	54.39
NG 3405 B2XF	3188	1179	0.42	1.06	4.6	27.0	81.4	7.1	4.85	50.64
PHY 222 WRF	3344	1179	0.40	1.13	5.1	31.3	84.1	8.2	4.93	51.41
NG 3406 B2XF	3237	1175	0.42	1.15	4.8	30.7	83.5	8.5	5.20	54.00
PHY 496 W3RF	3149	1174	0.43	1.08	4.9	30.4	82.6	7.9	4.75	51.86
PHY 444 WRF	3045	1156	0.44	1.22	4.6	31.1	83.9	6.6	4.58	54.59
BX 1532GLT	3151	1150	0.43	1.10	4.8	29.8	82.9	7.1	4.55	51.96
PHY 495 W3RF	2920	1147	0.45	1.06	4.8	32.6	82.6	8.1	4.83	52.08
DP 1614 B2XF	3001	1137	0.44	1.13	5.1	30.0	82.9	8.6	4.25	52.31
DP 1538 B2XF	3008	1136	0.44	1.07	4.8	29.0	82.7	8.0	4.78	52.60
ST 5032GLT	3213	1134	0.41	1.18	4.5	32.0	83.6	7.6	4.98	54.55
ST 5115GLT	3154	1132	0.41	1.13	4.6	31.1	82.7	7.4	5.58	53.93
DP 1555 B2RF	2922	1129	0.44	1.15	4.8	32.2	82.5	7.4	4.98	53.36
BX 1531GLT	2905	1126	0.44	1.15	5.0	30.2	83.9	6.9	5.23	52.40
DG CT 15557 B2RF	2966	1125	0.43	1.14	4.8	31.6	83.4	7.7	5.08	54.24
DG 3385 B2XF	3063	1123	0.42	1.12	4.8	29.9	83.3	7.9	4.30	53.79
DP 1612 B2XF	3173	1114	0.40	1.15	4.6	31.8	83.0	8.3	5.05	54.08
DP 1646 B2XF	2868	1100	0.44	1.20	4.7	29.7	82.6	7.5	4.00	54.29
DP 1639 B2XF	2826	1097	0.45	1.09	5.1	31.8	82.9	8.5	4.23	50.26
ST 4747GLB2	3053	1082	0.41	1.18	4.8	29.6	82.7	5.6	5.00	53.64
PHY 339 WRF	2979	1074	0.41	1.14	4.7	30.6	82.4	7.5	4.73	53.80
CG 3885 B2XF	2794	1057	0.43	1.09	4.8	29.6	81.7	8.1	4.70	52.50
PHY 499 WRF	2767	1054	0.44	1.13	4.8	32.2	83.4	8.4	4.53	53.83
ST 6182GLT	2646	1050	0.46	1.11	4.9	29.5	82.6	6.8	5.15	51.26
NG 5007 B2XF	2880	1045	0.42	1.10	4.6	29.2	81.1	7.7	4.95	52.13
ST 4946GLB2	2890	1039	0.41	1.11	5.0	32.8	83.6	7.8	5.20	52.81
PHY 427 WRF	3006	1031	0.39	1.13	4.4	31.3	83.2	8.3	4.30	54.30
DP 1553 B2XF	2772	1026	0.42	1.14	4.6	30.3	82.4	7.9	4.83	54.09
BX 1634GLT	2769	1011	0.42	1.15	5.1	31.8	84.3	5.7	4.93	51.91
BX 1638GLT	2772	989	0.41	1.19	4.5	33.3	82.5	6.8	4.78	54.63
PHY 487 WRF	2703	983	0.42	1.06	4.9	29.9	81.6	8.3	4.38	50.95
PHY 552 WRF	2683	980	0.42	1.14	4.7	31.8	83.5	7.3	4.28	53.40

MON 15R513 B2XF	2636	953	0.41	1.14	5.0	31.0	83.9	7.7	4.63	52.29
DP 1558NR B2RF	2469	924	0.43	1.12	5.2	32.4	82.6	7.5	5.08	51.16
ST 6448GLB2	2501	858	0.39	1.16	4.8	29.0	82.9	6.1	4.53	52.74
DG CT 14515 B2RF	2232	807	0.41	1.10	4.8	31.3	82.4	7.9	5.28	51.75
BRS 293	2188	742	0.39	1.12	5.3	32.6	82.5	7.8	5.00	50.98
BRS 286	2082	715	0.39	1.08	4.7	31.4	82.7	7.3	4.45	50.46
SSG CT 210	2144	693	0.37	1.13	5.2	32.6	83.4	7.4	5.28	51.53
BRS 335	2065	664	0.37	1.19	4.8	33.4	83.4	6.1	4.53	53.06
Overall Mean	2962	1084	0.42	1.13	4.8	31.0	83.0	7.6	4.79	52.86
LSD(0.05)	604	229	0.02	0.06	0.3	1.6	1.39	0.5	0.69	2.29
C.V. (%)	15	15	3.76	3.48	4.9	3.7	1.19	4.9	10.35	3.10

† Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.



Appendix 1. Dates of agronomically important events for all cotton variety trials and locations in Mississippi during 2015.

Event	Location and soil texture†							
	Brooksville Brooksville SC	Clarksdale Dubbs VFSL	Senatobia Falaya SL	Starkville Marietta FSL	Stoneville Commerce VFSL	Tunica Sharkey Clay	Verona Leeper SL	Yazoo City Adler/Morganfield SL
	----- -Month/day-----							
Planting Date	5/21	5/6	5/5	6/5	5/5	5/5	5/14	6/8
Irrigation	N/A	N/A	N/A	N/A	7/16; 7/20; 8/6	N/A	N/A	
N application	6/12	6/4; 7/8	1/28; 5/14; 6/10	5/13; 7/13	6/10	1/28; 5/10; 6/4	6/22	
Pre Herbicide	5/23	5/6	5/5	6/5	5/8	5/5	5/14	6/8
Early Post Herbicide	6/26	6/28	6/23	7/8	6/8	6/24	6/10; 6/15	
Layby Herbicide	N/A	N/A	7/10	N/A	7/16	7/16	6/22; 7/15	
Early Insecticide	6/10; 6/17	6/4; 6/15; 6/22; 6/27	6/26	N/A	6/23	6/21	6/8	6/24
Mid Insecticide	7/8; 7/30	7/2; 7/6; 7/11; 7/16	7/13; 7/27	N/A	7/8; 7/15; 7/20; 7/22	7/6; 7/30	6/29; 7/14	7/1; 7/17; 7/31
Late Insecticide	N/A	8/6; 8/14; 8/22	N/A	N/A	8/6	8/20	8/3	8/14; 8/24
PGR	7/13	7/11; 8/6	6/26	N/A	7/15; 7/20; 8/6	7/6; 7/30	7/27; 8/10	7/31; 8/14
Harvest Aid	9/22; 10/2	9/28; 10/6	9/18; 9/25	N/A	9/7; 9/18	9/23; 9/30	9/17; 9/23	9/28; 10/4
Harvest	10/15	10/13	10/5	11/9	10/6	10/20	10/7	11/16

† FSL = Fine sandy loam, VFSL = Very fine sandy loam, SCL = Silty clay loam, SL = Silt loam, SC= silty clay