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Mississippi COTTON VARIETY TRIALS, 2011

MAFES

Mississippi Agricultural & Forestry Experiment Station • George M. Hopper, Director

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NOTICE TO USER

This Mississippi Agricultural and Forestry Experiment Station information bulletin is a summary of research conducted under project number 171600 at the Delta Research and Extension Center in Stoneville, Mississippi, and several other locations in the state. It is intended for the use of colleagues, cooperators, and sponsors. The interpretation of data presented herein may change after additional experimentation. Information included herein is not to be construed either as a recommendation for use or as an endorsement of a specific product by Mississippi State University or the Mississippi Agricultural and Forestry Experiment Station. Trade names of commercial products used in this report are included only for clarity and understanding. All available names (trade names, chemical names, experimental product code names or numbers, etc.) of products used in this research project are listed in the tables contained in this report.

Mississippi Cotton Variety Trials, 2011

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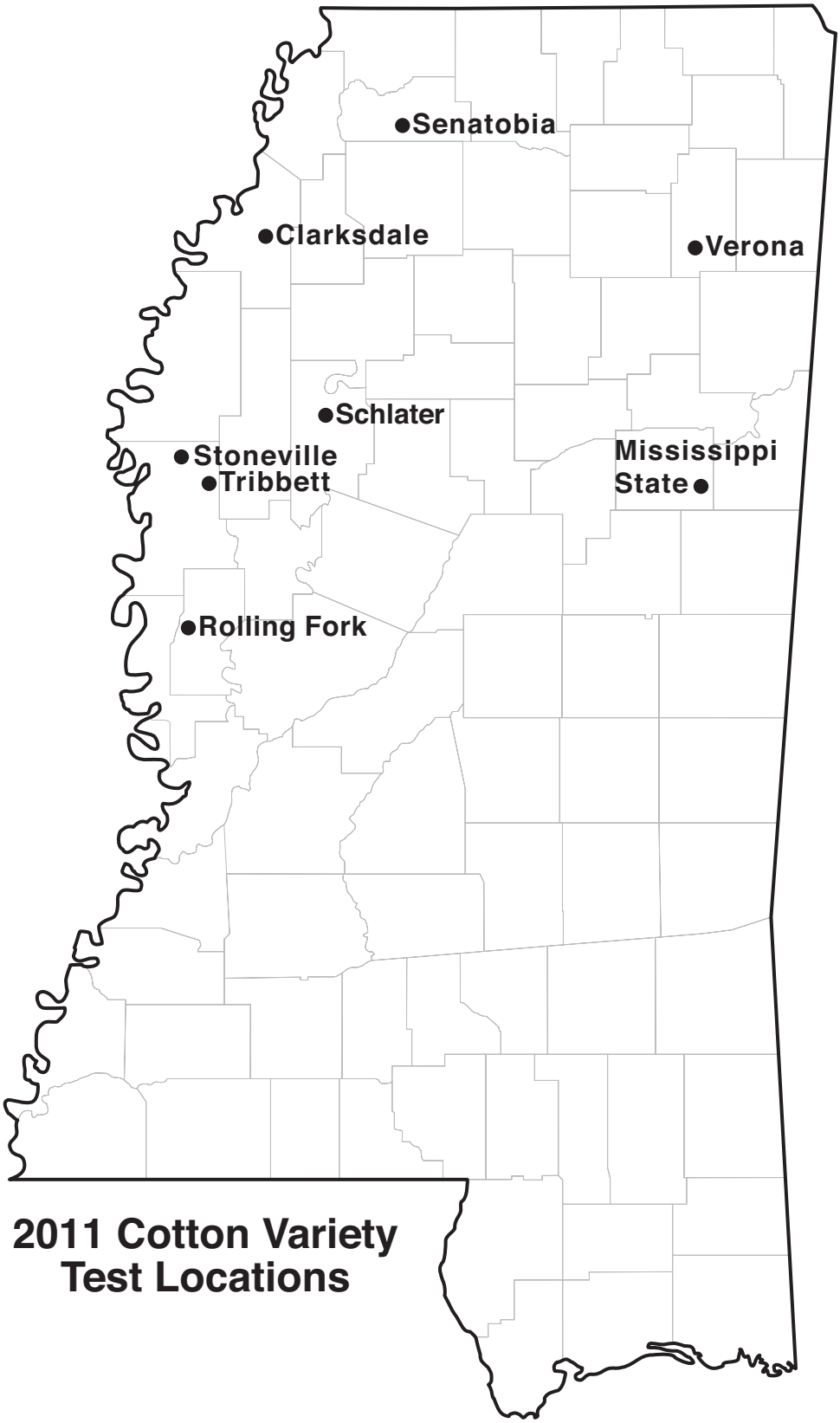
PREFACE

The 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.



2011 Cotton Variety Test Locations

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Mississippi Cotton Variety Trials, 2011

Introduction

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 aid in making well-informed variety selection decisions based upon how a particular cotton variety performed close to their base of operation.

The Official Variety Trial (OVT) is conducted annually at the Delta Research and Extension Center, North Mississippi Research and Extension Center, Mississippi State University, Tribbett Satellite Farm, and cooperating producer locations in Delta and hill cotton-producing regions. At each location, all varieties entered into the trial are treated identically (Conventional) with respect to herbicide and insecticide inputs 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 represent the majority of the state's cotton acreage.

Mississippi State also conducts the New Trial and Commercial Advanced Stain Trial (CAST). The New Trial is conducted at four on-station locations, and the CAST is conducted at Stoneville. These trials allow researchers and producers to get a firsthand look at possibly the next best varieties coming down the pipeline. The varieties in the New Trial are closer to becoming commercially available than those in the CAST in most instances.

Testing Procedures

All varieties submitted for testing are cultivated using conventional chemical control for insect and weed pests. Each plot consists of two rows of cotton approximately 40 feet long with a row spacing of 38 or 40 inches. Each trial is analyzed statistically as a randomized complete block with four blocks or replications.

Input management for on-farm trials is determined by cooperators at each location based on soil texture, soil test value, and scouting for pest pressures. However, seeding rate, planting, and harvest is controlled by the cotton variety testing coordinator. A list of agronomically important 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 estimated fiber parameters (Lint percent, individual boll weight), as well as fiber quality assessments, are based on a handpicked 50-boll sample from each replicated plot at each location. The 50-boll samples from all locations are ginned on the same 10-saw Continental Eagle laboratory gin to determine lint percent. Use of a single gin for all samples is important to avoid bias in fiber quality measurements across locations. Starlab, Inc., of Knoxville, Tennessee, conducted High Volume

Instrumentation (HVI) analyses for fiber property determinations.

Lint yields are calculated using the seed cotton weight mechanically harvested from each plot and the lint percentage estimates from handpicked boll samples. Mean lint yields are presented as pounds of lint per acre.

The commercial varieties used as standard checks for comparison in 2011 were Monsanto DP 0912 B2RF, Phytogen 375 WRF, and Stoneville 5458B2RF. These varieties were included to give the producer an idea of how newer varieties compare to proven high-yielding varieties adapted to the Midsouth 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, soil textural change). 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 5% level of significance. The LSD associated with the 5% level lends us 95% certainty with regard to 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 text. These varieties 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 had slightly differing numerical yields, but they performed similarly at a given location. Statistical analysis was not conducted for across-location averages. Producers should review data tables for the closest geographical location that is representative of their operation, but they 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 possibly the most important management decision a producer must make for the duration of growing season. Improper variety selection generally cannot be overcome with management. Choosing varieties with the best genetic potential will generally pay off at harvest. With the rising cost of seed and associated technology fees, careful consideration should go into selecting varieties that are well adapted to the Midsouth growing region and to certain geographical regions within the state.

Availability of multiple 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. Following is a synopsis of the transgenic traits that were represented in this year's trials.

Glyphosate resistance — This trait is generally indicated on the seed bag with either an F or RF. Varieties with these designations can tolerate over-the-top applications of glyphosate. The newer Flex varieties have replaced the older Roundup Ready varieties (R or RR). Flex varieties allow over-the-top glyphosate applications to be made later into the season.

Glufosinate resistance — This trait is generally indicated on the seed bag with an LL. These varieties can withstand over-the-top applications of Ignite 280 or Liberty. These varieties may gain appeal with the increasing acreage of glyphosate-resistant weeds. It is important to note that producers utilizing both glyphosate- and glufosinate-resistant 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 using herbicide-resistant traits and alternative weed control

practices, consult MSU Extension Service Publication 1532 "Weed Control Guidelines for Mississippi" available online at http://msucares.com/pubs/publications/p1532/cotton.pdf

Bollgard II — Varieties with designations B2 or BG2 on the seed bag or in the brand name contain genes that produce proteins toxic to most caterpillar pests. However, under high and persistent pressure, supplemental chemical control strategies are necessary to prevent economic damage.

WideStrike — Phytogen varieties with the designation W on the bag or in the variety name contain two genes that produce proteins toxic to most caterpillar pests. For more information on use of transgenic traits with insecticidal properties, consult MSU Extension Service 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 restricted 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 will reduce risk and provide for flexibility in relative maturity and management decisions.

Lint yield should be the primary factor when attempting to select a variety, but do not discount fiber quality as a close second. Fiber quality will ultimately determine marketability and value. Overall, low fiber quality in Midsouth cotton-producing regions has become an issue.

One consideration in 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. For more information on maturity of varieties, consult MSU Extension Service Publication 2697 "2011 Cotton Maturity Guide" available online at http://msucares.com/pubs/publications/p2697.pdf.

Loan Valuation Decision Aid

For each trial conducted in 2011, data was submitted to the upland cotton loan valuation aid (Tables 21–23). This tool was developed by Larry Falconer of Texas A&M and is supported by Cotton Inc. 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. The program can be referenced via the Internet at http://www.cottoninc.com/Decision-Aids/2011-Cotton-Loan-Valuation-Model/?S=ProductionEconomics&Sort=0.

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. For cotton, however, there is a short list of available varieties that perform well and are adapted to the Midsouth. With changes in the cotton industry, the trend over the last 10 years has been for fewer cotton varieties to be submitted for testing in university OVT trials across the Midsouth. Therefore, it is important to select a variety that has performed well in the Mississippi OVT or other Midsouth university OVT trials.

ACKNOWLEDGEMENT

The authors would like to express their appreciation first and foremost to the four producers who participated in the 2011 Cotton Official Variety Trial locations that were conducted on-farm. The on-farm trials provide an added benefit by expanding the footprint of the trials into differing areas in the state to better represent the environmental, soil textural, and management differences present throughout the state of Mississippi. Thank you to Cliff Heaton (Clarksdale), Clark Carter (Rolling Fork), Dale Pillow (Schlater), and George Perry (Senatobia); your hard work and willingness to participate in the variety trials is deeply valued. We at the Mississippi Agriculture and Forestry Experiment Station look forward to working with you and other willing producers in the future.

Thanks also to Robert Sullivan and Jim Nichols of the agronomy program at the Delta Research and Extension Center for their assistance with all aspects of conducting the trials. Without your diligent work and assistance, the variety trials would not be a success. We would also like to recognize Shan Beasley, Laurie Jones, and Debra White for their assistance with hand-harvesting, ginning, and preparing fiber quality samples. Your work allows us to provide data in a timely fashion. To Mark Silva, thanks for supplying the equipment and technical expertise to make recording environmental data possible at both the on- and off-station testing locations.

Table 1. Varieties submitted for testing by participating industry partners in 2011.

Industry contact	Trial and variety submitted[1]		
	Official variety trial	**New variety trial**	**Commercial strain trial**
All-Tex Seed Co. *Charlie Cook*		ATX 3039 B2RF ATX 81144 B2RF ATX LA122	ATX 9C253 B2RF ATX 9W2863
Americot Inc. *Tom Brooks*	AM 1550 B2RF	AM 1511 B2RF	AMX 003 B2RF
Arkansas Ag. Experiment Station *Fred Bourland*		UA48 (std)	
Bayer Crop Science *Andy White*	FM 1740B2F ST 4288B2F ST 5288B2F ST 5458B2F (Std) ST 4145LLB2	BX 1252LLB2 BX 1254LLB2 BX 1261B2F BX 1262B2F BCSX 1150B2F	
Crop Production Services *Wade Thompson*	DG 2450 B2RF DG 2570 B2RF		DG CT11212 CG CT11622
Monsanto *Dave Albers*	DP 1028 B2RF DP 1034 B2RF DP 1048 B2RF DP 1133 B2RF DP 1137 B2RF DP 0912 B2RF (Std)	10R051B2R2 DP 1252 B2RF DP 1219 B2RF DP 1212 B2RF 10R020B2R2 11R159B2R2	DP 1044 B2RF 10R051B2R2 DP 1252 B2RF DP 1219 B2RF DP 1212 B2RF 10R020B2R2 11R159B2R2
PhytoGen Seed Co. *Reed Parker*	PHY 367 WRF PHY 499 WRF PHY 565 WRF PHY 375 WRF (Std)		
Seed Source Genetics *Ed Jungmann*	HQ 210 CT HQ 212 CT		
Winnfield Solutions, LLC *Robert Cossar*		CG 3787 B2RF	

[1](Std) — Designates a standard entry to be used for check purposes.

Table 2. One-year mean yield performance and fiber characteristics for Official and New trial varieties submitted for testing in 2011 averaged across all testing locations.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
10R020 B2R2	1079	39.32	1.13	4.72	28.93	84.21	6.56	5.00	10.18
10R051 B2R2	1295	42.82	1.20	4.76	29.33	85.88	7.71	4.74	9.69
11R159 B2R2	1277	42.12	1.19	4.80	32.41	84.56	6.97	4.39	9.45
AM 1511 B2RF	1332	42.20	1.16	4.66	30.58	84.62	7.71	4.59	9.57
AM 1550 B2RF	1192	39.40	1.13	4.56	29.47	84.27	5.83	4.62	13.24
ATX 3039 B2R	1145	40.86	1.17	4.44	28.06	84.21	6.50	4.28	9.81
ATX 81144 B2	1155	38.68	1.24	4.36	33.19	86.04	7.19	5.11	10.93
ATX LA122	1216	41.01	1.17	4.69	28.71	84.45	7.41	4.58	9.69
BCSX 1150B2F	1044	35.69	1.20	4.40	33.82	84.83	7.71	4.29	9.70
BX 1252LLB2	1068	38.34	1.18	4.65	31.53	84.40	7.45	4.45	9.95
BX 1254LLB2	1193	40.52	1.20	4.97	32.68	84.74	7.11	5.11	10.48
BX 1261B2F	961	36.06	1.18	4.26	30.28	84.33	7.14	4.21	9.66
BX 1262B2F	1020	39.18	1.16	4.54	31.22	83.88	7.55	4.48	9.42
CG 3787 B2RF	1279	42.32	1.19	4.67	29.24	85.28	7.54	4.73	9.61
DG 2450 B2RF	1172	39.05	1.16	4.43	28.97	84.82	5.68	4.36	10.16
DG 2570 B2RF	1224	39.87	1.14	4.74	31.05	84.77	6.55	4.95	10.40
DP 0912 B2RF	1309	39.50	1.13	5.00	30.75	84.19	6.58	4.49	10.04
DP 1028 B2RF	1273	43.14	1.18	4.75	30.10	85.27	6.47	4.65	9.88
DP 1034 B2RF	1321	42.14	1.18	4.65	29.83	85.51	6.34	4.74	10.03
DP 1048 B2RF	1194	41.82	1.19	4.56	29.75	85.16	6.38	4.72	9.95
DP 1133 B2RF	1294	43.32	1.18	4.82	33.14	85.61	6.68	4.58	10.14
DP 1137 B2RF	1266	42.23	1.16	4.79	30.19	85.07	6.36	4.83	10.10
DP 1213 B2RF	1176	39.36	1.20	4.67	31.06	85.06	7.51	4.77	9.96
DP 1219 B2RF	1266	41.08	1.21	4.68	33.04	85.23	7.14	4.40	9.60
DP 1252 B2RF	1176	44.20	1.19	4.91	29.22	85.23	7.65	4.66	9.46
FM 1740B2F	1246	40.36	1.17	4.76	31.62	85.09	5.91	4.90	10.88
HQ 210 CT	948	37.49	1.14	4.89	31.71	83.86	6.27	4.66	9.66
HQ 212 CT	881	37.18	1.15	4.83	32.52	84.36	6.34	4.69	9.72
PHY 367 WRF	1214	39.52	1.17	4.46	31.26	84.98	6.34	4.09	10.08
PHY 375 WRF	1259	41.01	1.15	4.54	30.00	84.65	6.16	4.48	10.08
PHY 499 WRF	1365	42.45	1.16	4.84	33.32	85.39	6.85	4.70	10.02
PHY 565 WRF	1114	39.48	1.18	4.63	32.77	85.19	6.68	4.23	10.23
ST 4145LLB2	1148	37.91	1.16	4.50	32.40	84.99	6.15	4.40	10.29
ST 4288B2F	1198	36.86	1.20	4.62	30.36	84.96	5.93	4.84	11.18
ST 5288B2F	1382	39.94	1.16	4.96	30.28	84.26	6.03	4.73	9.74
ST 5458B2RF	1333	39.30	1.18	4.91	32.49	84.32	6.38	4.98	10.45
UA 48	902	36.64	1.28	5.08	38.06	86.51	7.13	5.21	10.84
Overall Mean	**1204**	**40.09**	**1.17**	**4.70**	**31.13**	**84.84**	**6.59**	**4.64**	**10.18**

Table 3. Two-year mean lint yield of varieties cultivated at four locations in the Delta region during 2010 and 2011.

Variety	Clarksdale		Rolling Fork		Stoneville		Tribbett		Avg. across loc. and yr.
	2010	2011	2010	2011	2010	2011	2010	2011	
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*
AM 1550 B2RF	1544	1737	1352	1388	1397	877	1358	1042	1337
DG 2450 B2RF	1218	1402	1289	1427	1365	863	1297	1213	1259
DG 2570 B2RF	1401	1624	1300	1448	1303	779	1292	1062	1276
DP 0912 B2RF	1462	1697	1450	1765	1527	904	1370	1040	1402
DP 1028 B2RF	1495	1532	1429	1671	1244	925	1513	1087	1362
DP 1034 B2RF	1389	1617	1484	1589	1259	904	1325	984	1319
DP 1048 B2RF	1291	1262	1034	1457	1284	947	1506	1019	1225
FM 1740B2F	1211	1726	1423	1480	1427	816	1449	935	1308
PHY 367 WRF	1590	1274	1340	1660	1447	914	1485	1002	1339
PHY 375 WRF	1529	1796	1320	1595	1315	902	1476	864	1350
PHY 499 WRF	1735	1773	1405	1802	1524	983	1536	1259	1502
PHY 565 WRF	1454	1744	1240	1363	1253	982	1337	798	1271
ST 4288B2F	1721	1617	1426	1592	1299	885	1428	1067	1379
ST 5288B2F	1552	1964	1580	1763	1496	994	1252	1268	1484
ST 5458B2F	1577	1874	1551	1897	1680	950	1621	1158	1539
Planting Date	5/6	5/10	5/7	5/11	5/24	5/24	5/11	5/23	
Harvest Date	9/22	10/11	10/4	10/17	10/11	10/13	9/29	10/19	

Table 4. Two-year mean lint yield of varieties cultivated at three locations in the Hill region during 2010 and 2011.

Variety	Senatobia		Starkville		Verona		Avg. across location and yr.
	2010	2011	2010	2011	2010	2011	
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*
AM 1550 B2RF	1008	1008	1529	1094	1104	1459	1200
DG 2450 B2RF	1168	1020	1255	1078	1053	1513	1181
DG 2570 B2RF	1166	1057	1476	1055	1166	1625	1258
DP 0912 B2RF	1330	1244	1418	1093	1125	1632	1307
DP 1028 B2RF	1144	1064	1714	1359	1162	1771	1369
DP 1034 B2RF	1109	1161	1814	1479	1179	1770	1419
DP 1048 B2RF	1111	1035	1497	1406	1109	1673	1305
FM 1740B2F	968	1042	1318	1302	1129	1505	1211
PHY 367 WRF	1010	1109	1412	1067	1108	1497	1201
PHY 375 WRF	1071	1303	1302	1245	1192	1483	1266
PHY 499 WRF	1079	1062	1829	1384	1266	1603	1371
PHY 565 WRF	893	877	1547	1177	1120	1673	1215
ST 4288B2F	1047	1074	1364	1071	975	1408	1157
ST 5288B2F	1111	1125	1521	1213	1073	1523	1261
ST 5458B2F	1170	1189	1456	1146	1205	1567	1289
Planting Date	5/13	5/10	5/19	6/1	6/1	5/20	
Harvest Date	10/5	9/27	10/7	10/26	10/14	10/12	

Table 5. One-year mean lint yield of varieties cultivated at five locations in the Delta region during 2011.

Variety	Clarksdale	Rolling Fork	Schlater[1]	Stoneville	Tribbett	Avg. across locations
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*
AM 1550 B2RF	1737	1389	1188	877	1043	1247
DG 2450 B2RF	1402	1427	864	863	1214	1154
DG 2570 B2RF	1624	1448	1141	779	1062	1211
DP 0912 B2RF	1697	1765	1335	904	1040	1348
DP 1028 B2RF	1532	1671	1480	925	1087	1339
DP 1034 B2RF	1617	1589	925	904	984	1204
DP 1048 B2RF	1262	1457	1015	947	1019	1140
DP 1133 B2RF	1968	1861	1137	918	992	1375
DP 1137 B2RF	1642	1589	1091	813	922	1211
FM 1740B2F	1726	1480	1160	816	935	1223
HQ 210 CT	1149	756	—	646	757	827
HQ 212 CT	804	744	—	551	847	737
PHY 367 WRF	1274	1660	1190	914	1002	1208
PHY 375 WRF	1796	1595	1230	902	864	1277
PHY 499 WRF	1773	1802	1054	982	1259	1374
PHY 565 WRF	1744	1363	960	698	798	1113
ST 4145LLB2	1470	1291	—	880	1034	1169
ST 4288B2F	1617	1592	1175	885	1184	1291
ST 5288B2F	1964	1763	1205	994	1268	1439
ST 5458B2RF	1874	1897	1324	950	1158	1441

[1]Trial was inadvertently oversprayed with glyphosate; therefore, data is presented for glyphosate-tolerant varieties only.

Table 6. One-year mean lint yield of varieties cultivated at three locations in the Hill region during 2011.

Variety	Senatobia	Starkville	Verona	Avg. across locations
	lb/A	*lb/A*	*lb/A*	*lb/A*
AM 1550 B2RF	1008	1094	1459	1187
DG 2450 B2RF	1020	1078	1513	1204
DG 2570 B2RF	1057	1055	1625	1246
DP 0912 B2RF	1244	1093	1632	1323
DP 1028 B2RF	1064	1359	1772	1398
DP 1034 B2RF	1161	1479	1771	1470
DP 1048 B2RF	1035	1406	1673	1371
DP 1133 B2RF	1045	1205	1641	1297
DP 1137 B2RF	1067	1407	1599	1358
FM 1740B2F	1042	1302	1505	1283
HQ 210 CT	952	900	1480	1111
HQ 212 CT	910	916	1515	1114
PHY 367 WRF	1109	1067	1497	1224
PHY 375 WRF	1303	1245	1483	1344
PHY 499 WRF	1062	1384	1603	1350
PHY 565 WRF	877	1177	1673	1242
ST 4145LLB2	1057	1005	1359	1140
ST 4288B2F	1074	1071	1408	1184
ST 5288B2F	1125	1213	1523	1287
ST 5458B2RF	1189	1146	1567	1301

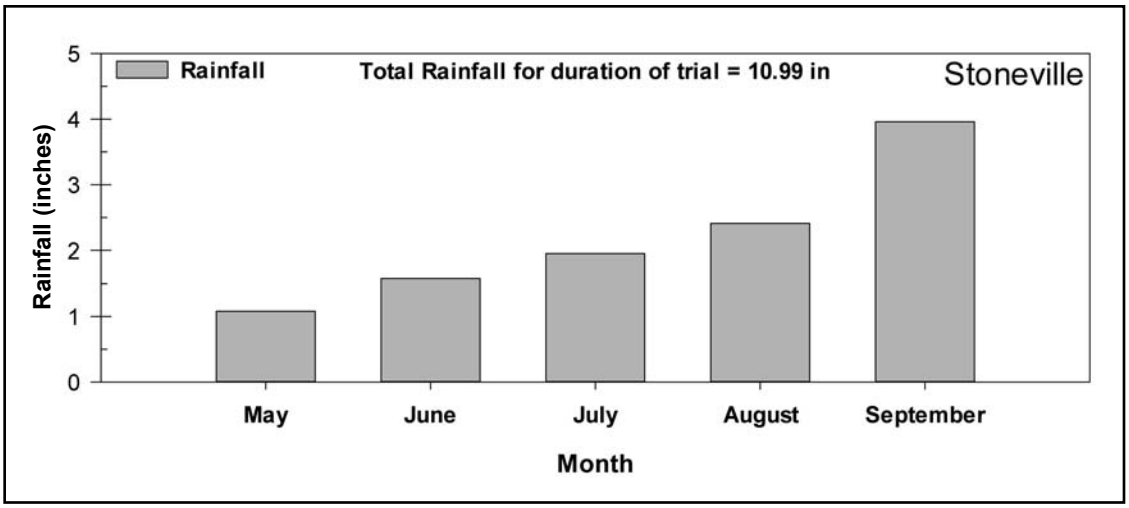

Table 7. Mean yield performance and fiber characteristics for cotton varieties cultivated on an irrigated Bosket very fine sandy loam at the Delta Research and Extension Center near Stoneville, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
ST 5288B2F	**994**	39.03	1.15	5.15	35.53	84.03	5.08	4.55	10.18
PHY 499 WRF	**982**	42.30	1.13	5.30	32.95	83.53	4.85	4.60	10.60
ST 5458B2RF	**950**	37.78	1.17	5.05	35.08	84.90	5.53	4.85	10.65
DP 1048 B2RF	**947**	41.03	1.14	4.98	32.13	84.25	5.20	4.55	10.50
DP 1028 B2RF	**925**	42.13	1.18	5.03	32.63	85.45	4.98	4.40	10.13
DP 1133 B2RF	**918**	41.88	1.16	5.25	34.33	84.18	4.75	4.45	10.90
PHY 367 WRF	**914**	38.48	1.13	4.78	29.88	84.35	4.18	3.75	10.33
DP 0912 B2RF	**904**	38.28	1.12	5.00	30.58	83.58	4.23	4.08	10.20
DP 1034 B2RF	**904**	40.75	1.17	4.83	34.10	85.15	4.83	4.65	10.73
PHY 375 WRF	**902**	39.85	1.20	4.95	30.60	85.03	4.40	4.25	11.00
ST 4288B2F	**885**	35.83	1.12	4.90	31.80	83.63	4.40	4.83	11.38
ST 4145LLB2	**880**	36.95	1.19	4.93	31.90	85.53	4.93	4.40	10.25
AM 1550 B2RF	**877**	38.13	1.12	5.28	32.50	83.30	4.78	4.55	10.33
DG 2450 B2RF	863	37.45	1.16	4.73	33.43	84.90	5.13	4.45	10.90
FM 1740B2F	816	38.60	1.18	5.28	35.30	84.93	5.40	4.78	11.18
DP 1137 B2RF	813	41.20	1.17	5.05	32.18	85.23	5.18	4.55	10.55
DG 2570 B2RF	779	37.93	1.20	4.88	31.13	84.68	4.75	4.68	10.28
PHY 565 WRF	698	38.50	1.18	5.30	33.78	83.93	4.68	3.93	10.70
HQ 210 CT	646	35.68	1.16	5.30	36.48	84.78	5.68	4.58	10.08
HQ 212 CT	551	34.35	1.16	5.43	31.85	83.85	4.65	4.80	10.48
Overall Mean	857	38.80	1.16	5.07	32.91	84.46	4.88	4.83	10.57
LSD(0.05)	128	0.09	0.03	0.25	1.35	1.10	0.31	0.39	0.56
C.V. %	10.53	1.65	2.07	3.55	2.89	0.92	4.43	6.12	3.79

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

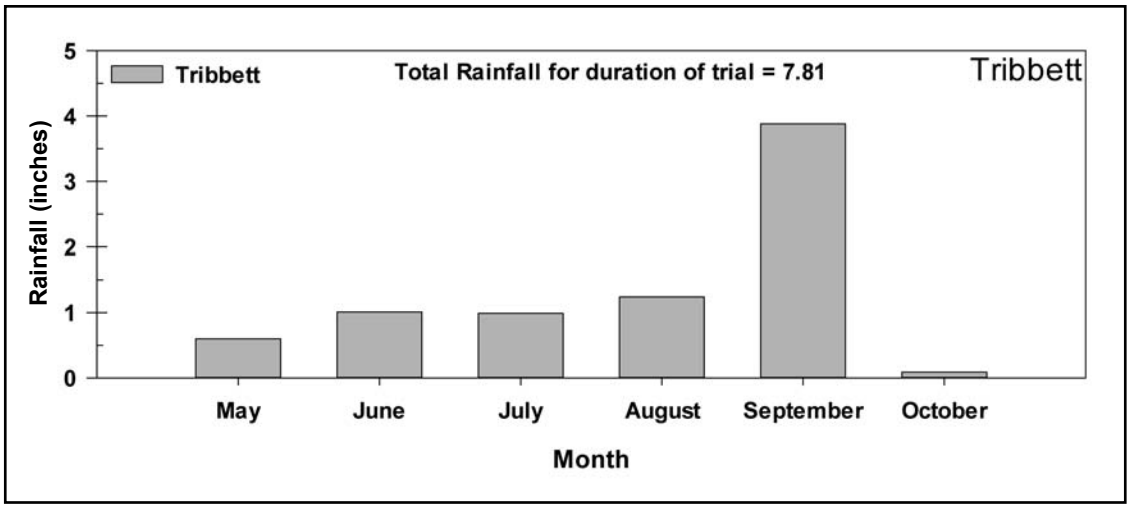

Table 8. Mean yield performance and fiber characteristics for cotton varieties cultivated on an irrigated Forestdale silty clay loam at the Tribbett Satellite Farm near Tribbett, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
ST 5288B2F	**1268**	40.68	1.15	5.18	29.93	84.03	7.28	4.45	9.90
PHY 499 WRF	**1259**	43.05	1.17	4.83	31.58	85.10	7.80	4.30	9.68
DG 2450 B2RF	**1214**	40.15	1.15	4.78	28.98	84.20	7.00	4.00	10.08
ST 4288B2F	**1184**	37.43	1.19	4.83	29.43	84.45	6.90	4.30	10.80
ST 5458B2RF	**1158**	39.58	1.16	5.10	30.98	82.78	6.73	4.50	10.18
DP 1028 B2RF	**1087**	42.88	1.19	4.83	29.13	84.95	7.23	4.38	9.73
DG 2570 B2RF	1062	38.45	1.12	4.98	30.00	83.75	7.43	4.68	9.80
AM 1550 B2RF	1043	39.45	1.12	4.78	28.40	83.35	6.93	4.35	9.58
DP 0912 B2RF	1040	38.95	1.10	5.15	29.55	83.13	7.15	4.15	9.65
ST 4145LLB2	1034	37.63	1.14	4.75	31.03	84.50	6.83	4.15	10.48
DP 1048 B2RF	1019	42.23	1.19	4.85	29.00	84.55	7.45	4.45	9.60
PHY 367 WRF	1002	39.10	1.12	4.90	29.43	83.78	7.23	3.75	9.73
DP 1133 B2RF	992	43.03	1.17	4.95	32.35	85.03	7.58	4.20	9.73
DP 1034 B2RF	984	42.20	1.18	4.88	28.93	84.50	7.30	4.55	10.38
FM 1740B2F	935	40.38	1.16	5.30	30.60	84.20	6.78	4.75	10.60
DP 1137 B2RF	922	41.50	1.14	4.98	28.98	84.65	7.53	4.50	9.85
PHY 375 WRF	864	39.30	1.13	4.90	31.25	83.95	7.00	4.43	10.40
HQ 212 CT	847	38.25	1.11	5.23	29.13	83.78	6.93	4.53	9.88
PHY 565 WRF	798	40.43	1.16	4.83	30.88	84.80	7.70	4.13	9.83
HQ 210 CT	757	36.95	1.10	5.25	31.35	83.05	7.00	4.65	9.38
Overall Mean	1021	40.00	1.15	4.96	30.04	84.13	7.18	4.36	9.96
LSD(0.05)	202	1.72	0.04	0.20	1.98	1.06	0.40	0.32	0.76
C.V. %	13.89	3.03	2.42	2.89	4.65	0.89	3.89	5.25	5.42

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

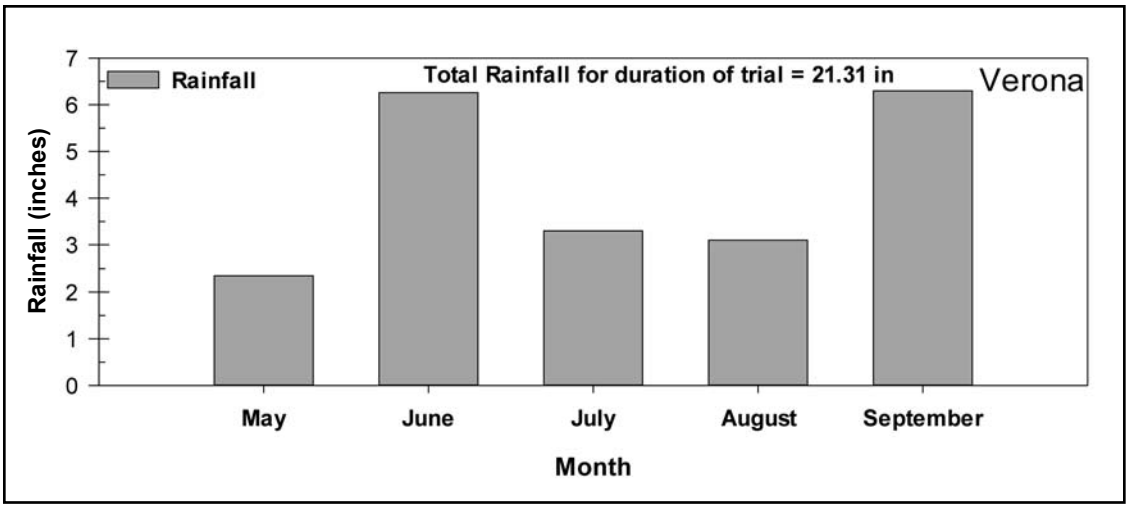

Table 9. Mean yield performance and fiber characteristics for cotton varieties cultivated on a nonirrigated Leeper silty loam at the North Mississippi Research and Extension Center near Verona, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
DP 1028 B2RF	**1772**	45.63	1.17	4.63	29.25	85.13	7.30	4.60	8.95
DP 1034 B2RF	**1771**	44.48	1.18	4.38	28.28	85.90	7.03	4.80	9.15
DP 1048 B2RF	**1673**	44.50	1.20	4.43	28.43	85.55	7.10	4.78	9.05
PHY 565 WRF	**1673**	40.80	1.19	4.35	31.73	85.00	7.58	4.38	9.55
DP 1133 B2RF	**1641**	45.85	1.19	4.90	32.73	86.20	7.63	4.75	9.33
DP 0912 B2RF	**1632**	41.93	1.15	4.83	30.90	85.03	7.43	4.68	9.83
DG 2570 B2RF	**1625**	42.63	1.15	4.35	30.33	85.13	7.40	4.95	9.63
PHY 499 WRF	**1603**	44.85	1.16	4.48	32.30	86.00	7.68	4.70	9.23
DP 1137 B2RF	**1599**	45.08	1.17	4.70	28.48	85.08	7.10	4.90	9.13
ST 5458B2RF	**1567**	40.88	1.19	4.50	33.33	85.35	7.05	4.85	10.35
ST 5288B2F	**1523**	41.45	1.16	4.70	29.55	84.00	6.75	4.58	8.60
HQ 212 CT	1515	39.35	1.15	4.08	30.08	84.15	6.78	4.23	8.50
DG 2450 B2RF	1513	42.33	1.16	4.25	28.13	84.83	6.33	4.13	9.48
FM 1740B2F	1505	42.03	1.17	4.35	30.10	85.63	6.68	4.68	10.23
PHY 367 WRF	1497	41.43	1.18	3.75	30.48	85.45	6.90	3.98	9.30
PHY 375 WRF	1483	42.98	1.15	4.15	29.53	84.78	6.48	4.48	9.23
HQ 210 CT	1480	39.78	1.15	4.35	29.80	84.10	6.60	4.20	8.25
AM 1550 B2RF	1459	40.83	1.14	4.05	29.03	84.23	6.63	4.33	9.30
ST 4288B2F	1408	37.70	1.20	4.30	29.98	85.08	6.80	4.93	10.25
ST 4145LLB2	1359	39.50	1.17	4.03	32.10	85.00	6.70	4.10	9.35
Overall Mean	1565	42.20	1.17	4.38	30.22	85.08	6.99	4.55	9.33
LSD(0.05)	239	1.04	0.02	0.27	1.38	1.15	0.34	0.34	0.77
C.V. %	10.80	1.73	1.46	4.35	3.24	0.95	3.45	5.21	5.84

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

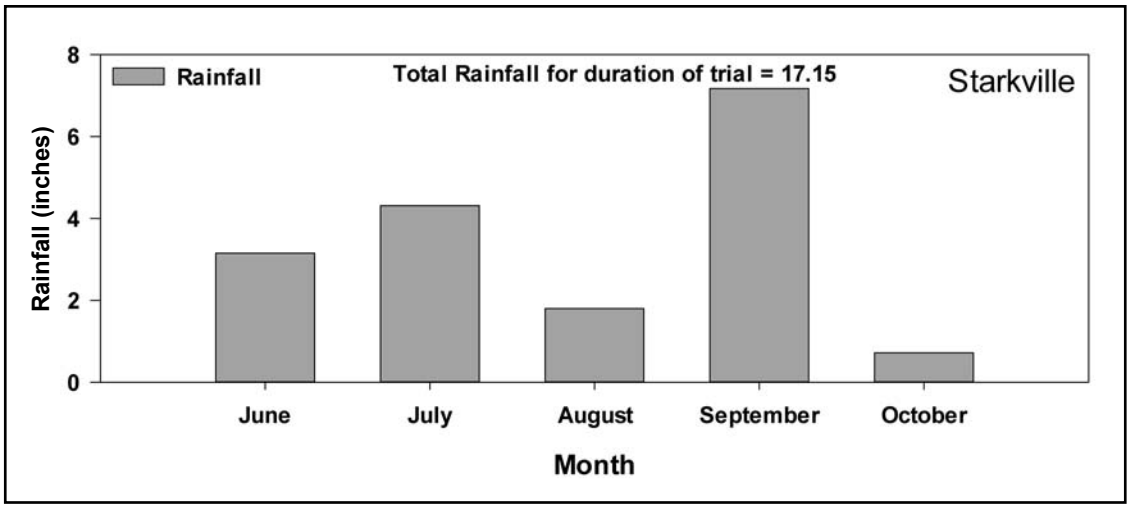

Table 10. Mean yield performance and fiber characteristics for cotton varieties cultivated on a nonirrigated Marietta fine sandy loam at Mississippi State University near Starkville, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
DP 1034 B2RF	**1479**	42.80	1.16	4.70	29.23	85.58	7.65	5.30	9.33
DP 1137 B2RF	**1407**	42.13	1.17	4.85	29.48	84.93	7.58	5.43	9.83
DP 1048 B2RF	**1406**	42.55	1.19	4.68	30.38	85.20	7.88	5.10	9.63
PHY 499 WRF	**1384**	41.73	1.19	4.85	32.35	85.85	7.90	5.03	9.60
DP 1028 B2RF	**1359**	43.53	1.18	4.73	29.40	85.38	7.90	5.43	9.48
FM 1740B2F	1302	41.15	1.20	4.55	31.10	85.80	6.98	5.40	10.53
PHY 375 WRF	1245	40.58	1.15	4.25	29.83	85.40	6.90	4.73	9.40
ST 5288B2F	1213	39.58	1.17	4.75	29.93	84.75	7.05	4.93	9.25
DP 1133 B2RF	1205	43.75	1.18	4.83	33.00	85.73	7.93	5.05	9.28
PHY 565 WRF	1177	38.38	1.20	4.78	33.18	86.03	7.75	4.85	9.98
ST 5458B2RF	1146	38.40	1.20	4.60	32.78	85.48	7.08	5.48	10.00
AM 1550 B2RF	1094	38.18	1.13	4.53	29.73	84.93	7.25	4.85	9.98
DP 0912 B2RF	1093	37.98	1.12	4.60	29.58	84.48	7.03	4.55	9.23
DG 2450 B2RF	1078	37.33	1.15	4.25	29.18	85.35	6.83	4.45	9.45
ST 4288B2F	1071	36.88	1.21	4.48	31.10	84.83	7.30	5.38	10.40
PHY 367 WRF	1067	38.08	1.16	4.25	30.73	85.73	7.65	4.18	9.33
DG 2570 B2RF	1055	38.45	1.14	4.60	31.38	85.70	7.78	5.20	10.13
ST 4145LLB2	1005	36.98	1.16	4.45	31.98	85.35	6.90	4.50	9.88
HQ 212 CT	916	36.80	1.15	4.88	31.48	84.73	7.23	4.73	8.85
HQ 210 CT	900	37.08	1.13	4.90	31.15	84.08	7.25	4.73	9.28
Overall Mean	1180	39.61	1.16	4.62	30.85	85.26	7.39	4.96	9.64
LSD(0.05)	148	1.20	0.04	0.34	1.27	1.06	0.39	0.40	0.73
C.V. %	8.83	2.14	2.28	5.22	2.90	0.88	3.71	5.75	5.31

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

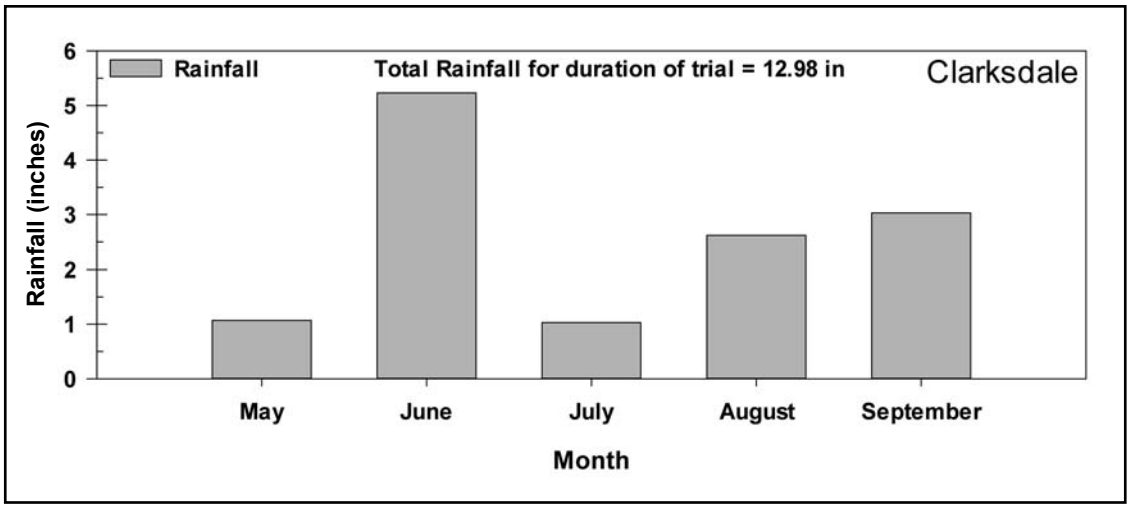

Table 11. Mean yield performance and fiber characteristics for cotton varieties cultivated on a nonirrigated Dubbs very fine sandy loam on Cliff Heaton Farms near Clarksdale, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
DP 1133 B2RF	**1968**	42.28	1.22	4.10	32.30	86.85	5.15	4.80	10.70
ST 5288B2F	**1964**	38.98	1.22	4.70	30.83	85.63	4.50	5.13	9.88
ST 5458B2RF	**1874**	37.40	1.23	4.63	33.90	85.13	4.55	5.23	11.53
PHY 375 WRF	**1796**	39.65	1.20	4.23	30.10	86.28	4.20	4.83	10.75
PHY 499 WRF	**1773**	38.35	1.20	4.63	33.73	86.13	5.28	5.25	10.40
PHY 565 WRF	**1744**	39.00	1.24	4.08	31.88	86.53	4.90	4.55	10.20
AM 1550 B2RF	**1737**	37.78	1.18	4.18	30.58	85.35	4.30	4.90	11.70
FM 1740B2F	**1726**	39.20	1.20	4.60	32.63	86.03	4.53	5.25	11.40
DP 0912 B2RF	**1697**	37.93	1.17	4.68	33.03	85.20	4.83	4.75	11.08
DP 1137 B2RF	**1642**	40.88	1.20	4.20	30.38	85.93	4.63	4.95	10.25
DG 2570 B2RF	**1624**	38.95	1.19	4.60	32.23	85.73	5.10	5.13	11.53
ST 4288B2F	**1617**	34.68	1.24	4.18	31.05	85.68	4.38	4.90	12.05
DP 1034 B2RF	**1617**	40.63	1.24	4.20	30.75	86.88	4.83	4.80	9.93
DP 1028 B2RF	1532	41.58	1.22	4.18	30.50	86.33	4.93	4.75	9.93
ST 4145LLB2	1470	35.30	1.23	4.08	33.80	86.05	4.60	5.13	11.53
DG 2450 B2RF	1402	36.83	1.21	4.18	30.40	85.63	4.23	4.45	10.23
PHY 367 WRF	1274	37.95	1.22	4.08	32.10	86.20	4.80	4.33	10.73
DP 1048 B2RF	1262	40.40	1.22	3.98	30.35	86.35	4.78	4.45	10.28
HQ 210 CT	1149	35.70	1.19	4.23	31.65	85.33	4.45	4.98	10.75
HQ 212 CT	804	35.33	1.23	4.25	33.98	85.80	4.95	4.95	10.43
Overall Mean	1578	38.44	1.21	4.30	31.81	85.95	4.69	4.87	10.76
LSD(0.05)	397	2.17	0.03	0.29	1.78	0.87	0.30	0.43	1.04
C.V. %	16.89	3.99	1.48	4.69	3.95	0.72	4.57	6.32	6.86

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

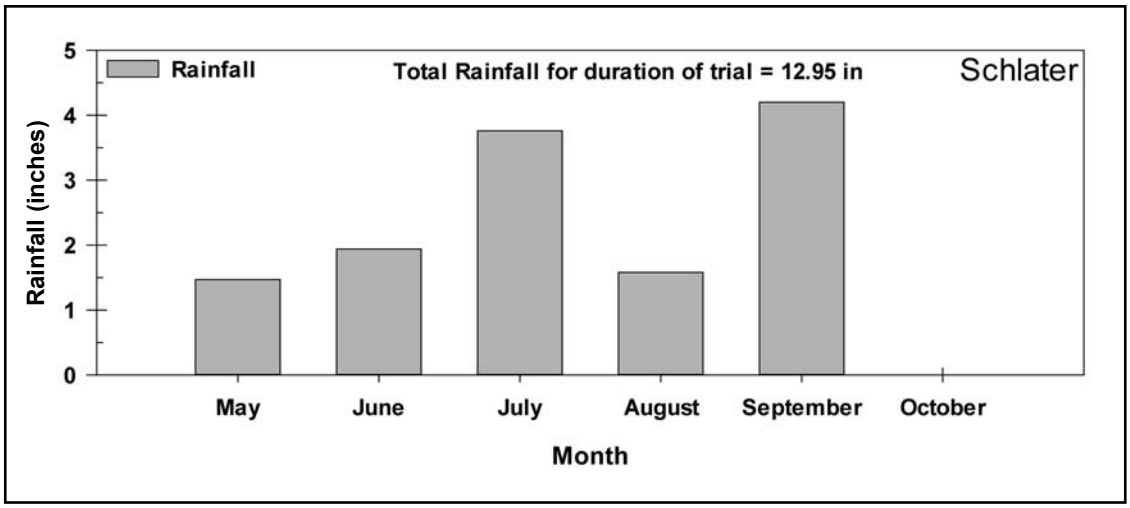

Table 12. Mean yield performance and fiber characteristics for cotton varieties cultivated on an irrigated Tensas silty clay loam on Dale Pillow Farms near Schlater, Mississippi, during 2011.

Variety[1]	Lint yield[2]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
DP 1028 B2RF	**1480**	41.55	1.18	4.48	30.93	85.78	4.70	4.23	10.75
DP 0912 B2RF	**1335**	39.43	1.14	5.03	31.65	83.88	4.58	4.33	10.85
ST 5458B2RF	**1324**	39.53	1.17	5.20	34.23	84.40	4.75	4.90	10.73
PHY 375 WRF	**1230**	40.93	1.17	4.45	31.78	84.98	4.35	4.20	11.15
ST 5288B2F	**1205**	39.60	1.20	4.98	32.38	85.18	4.48	4.70	11.03
PHY 367 WRF	1190	39.55	1.18	4.48	32.10	84.65	4.63	4.08	10.93
AM 1550 B2RF	1188	39.30	1.15	4.58	31.40	84.85	4.38	4.55	10.60
ST 4288B2F	1175	37.55	1.18	4.78	30.78	84.53	4.25	4.55	11.50
FM 1740B2F	1160	39.73	1.20	4.70	33.75	86.30	4.55	4.50	11.35
DG 2570 B2RF	1141	39.70	1.14	4.70	32.03	84.40	4.78	4.75	11.25
DP 1133 B2RF	1137	41.95	1.20	4.35	34.88	86.03	5.23	3.95	11.28
DP 1137 B2RF	1091	40.30	1.18	4.63	32.18	85.08	4.85	4.68	11.08
PHY 499 WRF	1054	42.50	1.17	4.90	33.28	85.25	4.88	4.50	10.53
DP 1048 B2RF	1015	40.28	1.19	4.25	30.20	85.63	4.58	4.38	10.78
PHY 565 WRF	960	38.68	1.19	4.45	33.43	85.28	4.95	3.78	11.25
DP 1034 B2RF	925	40.65	1.20	4.33	31.18	86.10	4.58	4.40	10.63
DG 2450 B2RF	864	38.13	1.19	4.13	30.20	85.25	4.08	4.08	11.30
Overall Mean	1140	39.96	1.18	4.61	32.14	85.14	4.62	4.38	11.00
LSD(0.05)	278	1.39	0.03	0.26	2.57	2.57	0.54	0.37	0.90
C.V. %	16.96	2.45	1.93	3.97	5.63	5.63	8.21	5.94	5.75

[1]Trial was inadvertently oversprayed with glyphosate; therefore, data is presented for glyphosate-tolerant varieties only.
[2]Lint yields in bold type within a column are not significantly different from the numerically greatest yielding variety.

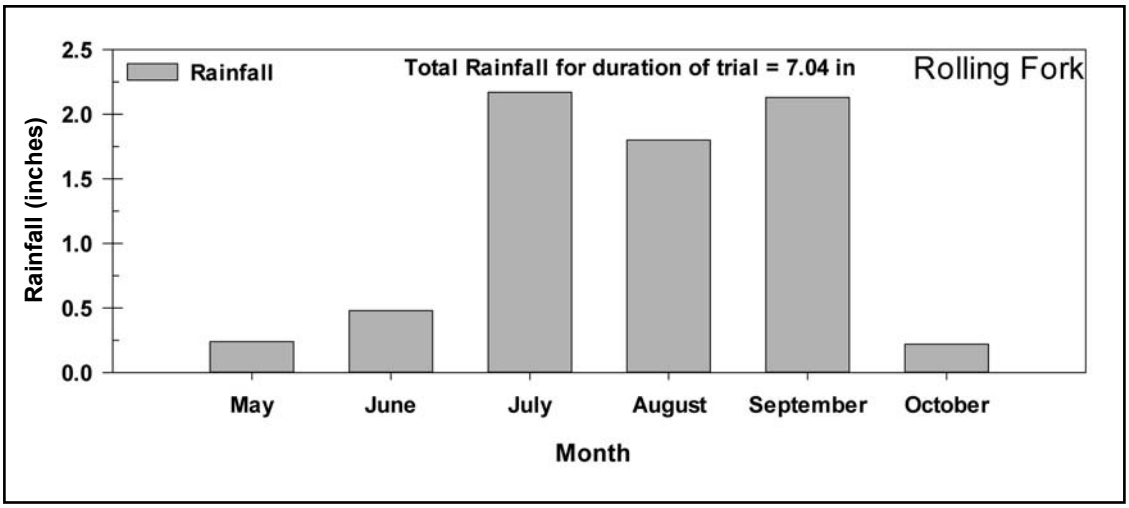

Table 13. Mean yield performance and fiber characteristics for cotton varieties cultivated on a nonirrigated Commerce very fine sandy loam on Clark Carter Farms near Rolling Fork, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
ST 5458B2RF	**1897**	38.25	1.20	4.93	31.05	85.23	6.88	5.30	10.85
DP 1133 B2RF	**1861**	42.00	1.20	4.98	32.13	85.75	7.25	4.80	10.40
PHY 499 WRF	**1802**	40.95	1.17	4.70	32.73	85.53	7.58	4.98	10.50
DP 0912 B2RF	**1765**	38.40	1.15	4.88	29.80	84.90	7.33	4.88	10.65
ST 5288B2F	**1763**	38.90	1.17	4.93	28.58	83.98	6.68	4.78	9.73
DP 1028 B2RF	1671	41.65	1.18	4.80	29.00	85.08	7.15	5.03	10.23
PHY 367 WRF	1660	39.43	1.19	4.63	30.30	85.35	7.25	4.53	10.35
PHY 375 WRF	1595	40.35	1.16	4.40	29.38	85.23	6.75	4.55	10.58
ST 4288B2F	1592	35.43	1.22	4.65	30.35	85.60	6.80	5.28	12.60
DP 1137 B2RF	1589	41.50	1.18	4.78	29.18	85.08	7.23	4.98	10.78
DP 1034 B2RF	1589	40.53	1.19	4.75	29.23	85.23	7.20	4.75	10.45
FM 1740B2F	1480	39.80	1.18	4.65	30.28	84.58	6.48	4.98	11.33
DP 1048 B2RF	1457	39.15	1.19	4.53	28.50	85.40	7.13	5.13	10.35
DG 2570 B2RF	1448	38.75	1.15	4.63	29.73	85.18	7.28	5.15	10.83
DG 2450 B2RF	1427	36.98	1.18	4.15	28.00	85.45	6.55	4.68	10.43
AM 1550 B2RF	1389	37.93	1.12	4.35	27.63	84.35	6.30	4.90	10.58
PHY 565 WRF	1363	38.48	1.19	4.50	32.95	85.08	7.48	4.30	10.58
ST 4145LLB2	1291	37.63	1.16	4.50	30.88	84.43	6.45	4.40	10.65
HQ 210 CT	756	37.25	1.15	4.90	32.25	83.70	6.78	4.70	10.30
HQ 212 CT	744	36.98	1.14	4.80	31.63	84.13	6.55	4.75	10.25
Overall Mean	1510	39.00	1.17	4.67	30.18	84.96	6.97	4.84	10.61
LSD(0.05)	225	1.54	0.03	0.26	2.09	1.01	0.37	0.41	1.07
C.V. %	10.44	2.78	1.54	3.88	4.91	0.84	3.72	6.01	7.13

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

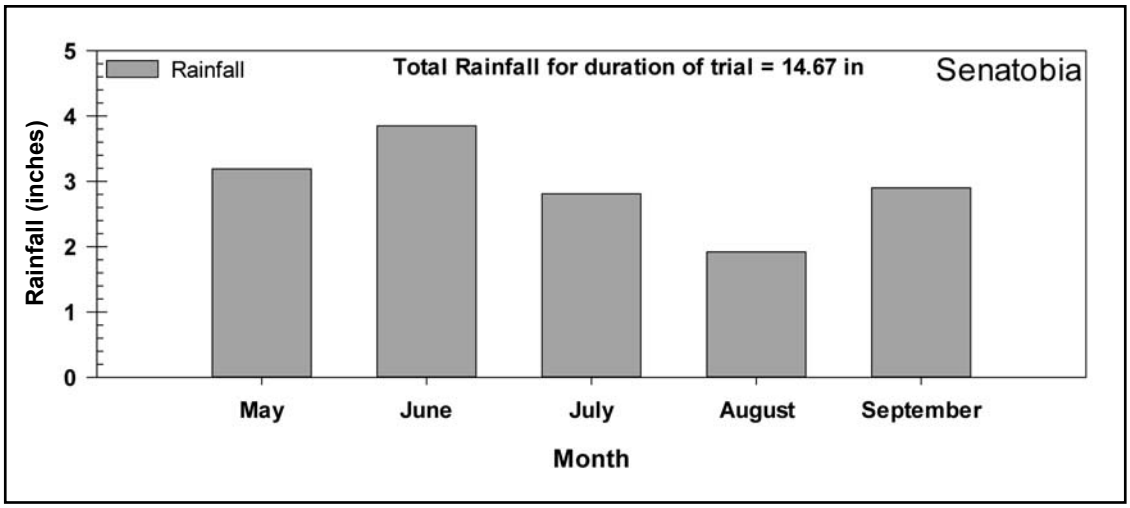

Table 14. Mean yield performance and fiber characteristics for cotton varieties cultivated on a nonirrigated Memphis silty loam on Pace Perry Farms near Senatobia, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
PHY 375 WRF	**1303**	45.28	1.10	5.18	29.70	84.23	6.80	4.60	9.98
DP 0912 B2RF	**1244**	43.70	1.11	5.43	31.38	84.95	7.10	4.60	10.10
ST 5458B2RF	**1189**	42.55	1.11	5.20	32.15	83.93	6.98	4.88	10.45
DP 1034 B2RF	**1161**	45.13	1.13	5.03	29.20	84.35	7.23	4.68	9.68
ST 5288B2F	1125	41.35	1.09	5.00	29.25	82.70	6.85	4.78	9.35
PHY 367 WRF	1109	42.15	1.12	4.88	31.55	83.83	7.15	4.18	9.93
ST 4288B2F	1074	39.38	1.13	4.83	29.58	84.53	6.65	4.58	10.45
DP 1137 B2RF	1067	45.23	1.11	5.18	30.28	84.40	7.00	4.65	9.38
DP 1028 B2RF	1064	46.23	1.12	5.33	30.40	84.33	7.40	4.40	9.85
PHY 499 WRF	1062	45.88	1.09	5.05	34.10	84.50	8.05	4.28	9.65
DG 2570 B2RF	1057	44.08	1.09	5.13	30.63	84.05	7.43	5.05	9.75
ST 4145LLB2	1057	41.38	1.13	4.90	32.95	84.48	6.78	4.13	9.93
DP 1133 B2RF	1045	45.83	1.13	5.15	32.43	84.38	7.28	4.65	9.53
FM 1740B2F	1042	41.98	1.12	4.65	30.15	84.00	6.58	4.85	10.40
DP 1048 B2RF	1035	44.45	1.12	4.90	30.00	83.90	7.43	4.90	9.40
DG 2450 B2RF	1020	43.20	1.11	4.93	27.00	83.50	6.23	4.68	9.40
AM 1550 B2RF	1008	43.63	1.07	5.00	28.43	83.53	6.63	4.50	9.78
HQ 210 CT	952	40.03	1.10	5.28	32.80	83.23	6.98	4.83	9.58
HQ 212 CT	910	39.50	1.10	5.48	34.43	83.55	7.13	4.88	9.50
PHY 565 WRF	877	41.60	1.09	5.05	33.05	83.90	7.58	3.98	9.73
Overall Mean	1071	43.12	1.11	5.08	30.97	84.01	7.06	4.60	9.78
LSD(0.05)	145	2.00	N/A	0.27	1.64	N/A	0.35	0.48	0.62
C.V. %	9.43	2.51	2.57	3.78	3.76	1.05	3.51	7.37	4.5

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

Table 15. One-year mean lint yield of varieties submitted to the New variety trial at four locations in Mississippi during 2011.

Variety	Starkville	Stoneville	Tribbett	Verona	Avg. across locations
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
AM 1511 B2RF	1298	1088	1203	1778	1342
ATX 3039 B2R	1171	890	1021	1556	1160
ATX 81144 B2	1268	898	979	1544	1172
ATX LA122	1224	955	1015	1696	1223
BCSX 1150B2F	1087	894	739	1562	1071
BX 1252LLB2	1156	768	898	1483	1076
BX 1254LLB2	1220	960	1086	1548	1204
BX 1261B2F	1001	832	784	1241	965
BX 1262B2F	1080	776	810	1509	1044
CG 3787 B2RF	1193	1007	923	1967	1273
DP 0912 B2RF	1201	875	1130	1783	1247
DP 1219 B2RF	1378	998	950	1790	1279
DP 1212 B2RF	1165	876	1122	1624	1197
10R020 B2R2	1086	814	920	1514	1084
10R051 B2R2	1545	865	907	1910	1307
DP 1252 B2RF	1264	736	836	1939	1194
11R159 B2R2	1419	1015	1044	1839	1329
PHY 375 WRF	1239	863	879	1757	1185
ST 5458B2RF	1323	920	1124	1600	1242
UA 48	950	765	795	1167	919

Table 16. Mean yield performance and fiber characteristics for NEW cotton varieties cultivated on an irrigated Bosket very fine sandy loam at the Delta Research and Extension Center near Stoneville, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
AM 1511 B2RF	**1088**	42.53	1.13	4.97	31.00	82.37	7.73	4.17	9.53
11R159 B2R2	**1015**	42.73	1.18	5.10	33.20	84.20	6.67	4.23	9.70
CG 3787 B2RF	**1007**	42.27	1.16	5.10	29.03	84.07	7.33	3.93	9.60
DP 1219 B2RF	**998**	40.17	1.21	5.03	32.73	84.27	6.87	4.17	10.40
BX 1254LLB2	**960**	40.27	1.18	5.23	33.13	83.97	6.97	4.67	10.47
ATX LA122	**955**	40.20	1.11	4.97	27.97	83.03	7.27	3.90	9.77
ST 5458B2RF	920	38.97	1.16	5.30	32.67	83.70	6.87	4.47	10.33
ATX 81144 B2	898	37.63	1.21	4.73	34.63	85.17	7.43	4.53	11.07
BCSX 1150B2F	894	36.07	1.18	4.93	34.93	83.97	7.63	4.17	10.17
ATX 3039 B2R	890	39.50	1.17	5.13	28.93	83.90	6.57	4.00	10.53
DP 1212 B2RF	876	38.23	1.22	4.90	31.53	84.80	7.43	4.27	10.50
DP 0912 B2RF	875	38.57	1.10	5.33	29.80	82.20	6.83	3.97	10.13
10R051 B2R2	865	41.43	1.22	4.93	30.67	86.37	7.47	4.10	9.67
PHY 375 WRF	863	40.83	1.12	5.00	30.20	83.90	6.90	3.93	9.77
BX 1261B2F	832	36.40	1.15	4.60	30.73	83.03	6.87	4.03	9.77
10R020 B2R2	814	39.10	1.13	5.23	30.23	82.47	6.73	4.87	10.63
BX 1262B2F	776	39.23	1.15	5.10	31.37	82.87	7.40	4.23	9.73
BX 1252LLB2	768	37.63	1.17	5.03	31.77	83.53	7.37	4.23	10.50
UA 48	765	36.47	1.22	5.37	37.83	84.03	6.77	4.90	10.53
DP 1252 B2RF	736	42.80	1.21	5.00	29.83	85.47	7.70	4.10	9.47
Overall Mean	890	39.55	1.17	5.05	31.61	83.87	7.14	4.24	10.11
LSD(0.05)	147	1.59	0.04	0.21	1.89	1.31	0.43	0.40	0.78
C.V. %	9.98	2.43	2.01	2.5	3.63	0.95	3.65	5.65	4.70

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

Table 17. Mean yield performance and fiber characteristics for NEW cotton varieties cultivated on an irrigated Marietta fine sandy loam at Mississippi State University, near Starkville, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
10R051 B2R2	**1545**	43.13	1.20	4.60	28.73	86.03	8.08	5.40	9.88
11R159 B2R2	**1419**	40.75	1.19	4.45	31.28	85.40	7.18	4.80	9.40
DP 1219 B2RF	1378	39.88	1.23	4.43	32.60	85.83	7.33	4.75	9.23
ST 5458B2RF	1323	38.73	1.19	4.65	32.58	84.15	7.08	5.33	10.25
AM 1511 B2RF	1298	41.38	1.17	4.45	29.58	85.75	7.83	5.05	9.88
ATX 81144 B2	1268	38.23	1.26	4.10	33.55	86.95	7.15	5.73	10.90
DP 1252 B2RF	1264	43.63	1.19	4.68	29.55	85.95	7.90	5.40	9.93
PHY 375 WRF	1239	39.35	1.16	4.25	28.68	84.38	6.60	4.98	9.53
ATX LA122	1224	40.38	1.20	4.53	28.53	85.88	8.00	5.28	10.53
BX 1254LLB2	1220	39.73	1.20	4.80	31.38	84.78	7.18	5.70	10.25
DP 0912 B2RF	1201	38.88	1.14	4.85	30.13	84.98	7.43	5.00	9.98
CG 3787B2RF	1193	41.00	1.21	4.48	29.08	86.05	7.85	5.75	10.23
ATX 3039 B2R	1171	40.53	1.18	4.08	27.28	84.60	6.63	4.88	9.70
DP 1212 B2RF	1165	38.13	1.19	4.40	30.35	85.65	7.63	5.20	10.03
BX 1252LLB2	1156	38.33	1.19	4.58	29.80	85.33	7.68	4.80	10.25
BCSX 1150B2F	1087	34.35	1.20	3.88	31.78	85.53	7.78	4.40	9.33
10R020 B2R2	1086	38.38	1.15	4.25	28.35	85.53	6.55	5.70	10.03
BX 1262B2F	1080	37.83	1.16	4.10	30.28	84.40	7.73	4.83	9.13
BX 1261B2F	1001	35.25	1.16	4.13	29.63	85.18	7.80	4.60	9.73
UA 48	950	35.38	1.32	5.03	38.30	87.60	7.30	5.95	11.20
Overall Mean	1217	39.16	1.19	4.43	30.57	85.49	7.43	5.18	9.97
LSD(0.05)	164	1.32	0.03	0.31	1.62	1.11	0.44	0.41	0.86
C.V. %	9.28	2.39	1.67	4.86	3.75	0.92	4.15	5.66	6.16

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

Table 18. Mean yield performance and fiber characteristics for NEW cotton varieties cultivated on an irrigated Forestdale silty clay loam at the Tribbett Satellite Farm, near Tribbett, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
AM 1511 B2RF	**1203**	40.53	1.17	4.63	29.80	84.43	7.55	4.45	9.70
DP 0912 B2RF	**1130**	38.18	1.12	5.13	29.80	83.55	7.35	4.20	10.25
ST 5458B2RF	**1124**	38.25	1.20	4.90	31.25	84.13	7.03	4.78	10.90
DP 1212 B2RF	**1122**	38.80	1.19	4.75	30.90	84.68	7.68	4.78	10.13
BX 1254LLB2	**1086**	39.50	1.21	4.98	32.80	84.70	7.25	4.85	11.08
11R159 B2R2	**1044**	40.88	1.22	4.83	32.78	84.48	7.00	4.13	10.00
ATX 3039 B2R	1021	39.95	1.16	4.68	28.25	83.58	6.73	4.10	10.23
ATX LA122	1015	40.15	1.19	4.73	29.38	84.08	7.38	4.43	9.90
ATX 81144 B2	979	37.65	1.27	4.48	33.03	86.55	7.25	4.95	12.03
DP 1219 B2RF	950	40.90	1.21	4.65	32.65	85.08	7.25	4.03	10.10
CG 3787 B2RF	923	40.88	1.21	4.65	29.23	85.50	7.43	4.50	10.00
10R020 B2R2	920	37.75	1.13	4.93	28.30	84.15	6.73	4.58	10.45
10R051 B2R2	907	41.05	1.20	4.95	29.35	85.75	7.70	4.63	10.58
BX 1252LLB2	898	36.68	1.19	4.68	31.80	83.78	7.58	4.33	10.28
PHY 375 WRF	879	39.43	1.16	4.58	28.25	84.35	6.98	4.18	10.43
DP 1252 B2RF	836	42.63	1.20	4.93	28.65	84.90	7.68	4.40	10.05
BX 1262B2F	810	37.10	1.15	4.65	32.13	83.75	8.00	4.08	9.88
UA 48	795	36.10	1.30	5.15	37.98	86.90	7.20	4.73	11.65
BX 1261B2F	784	34.63	1.21	4.50	30.38	84.10	7.15	3.90	10.30
BCSX 1150B2F	739	33.93	1.23	4.48	33.25	84.63	7.85	4.15	10.48
Overall Mean	957	38.74	1.19	4.76	30.99	84.65	7.34	4.41	10.42
LSD(0.05)	166	1.12	0.04	0.21	1.69	1.20	0.42	0.36	0.72
C.V. %	12.11	2.05	2.37	3.06	3.85	0.99	4.01	5.73	4.86

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

Table 19. Mean yield performance and fiber characteristics for NEW cotton varieties cultivated on a nonirrigated Leeper silty loam at the North Mississippi Research and Extension Center, near Verona, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
CG 3787 B2RF	**1967**	44.88	1.19	4.45	29.40	85.63	7.45	4.90	8.58
DP 1252 B2RF	**1939**	47.18	1.19	5.03	28.88	85.55	7.50	4.85	8.30
10R051 B2R2	**1910**	45.33	1.20	4.50	28.78	85.85	7.55	4.83	8.63
11R159 B2R2	**1839**	44.50	1.19	4.78	32.53	84.80	7.00	4.45	8.83
DP 1219 B2RF	1790	42.90	1.21	4.50	33.65	85.95	7.15	4.78	9.13
DP 0912 B2RF	1783	42.03	1.13	4.90	30.58	84.48	7.05	4.80	8.68
AM 1511 B2RF	1778	45.23	1.16	4.58	31.20	85.40	7.70	4.75	9.08
PHY 375 WRF	1757	43.28	1.18	4.13	29.20	85.00	6.55	4.60	8.63
ATX LA122	1696	42.78	1.17	4.45	28.43	85.00	6.90	4.73	8.73
DP 1212 B2RF	1624	41.70	1.22	4.55	31.28	85.55	7.30	4.83	9.33
ST 5458B2RF	1600	41.28	1.16	4.60	31.08	84.05	6.90	4.95	9.25
BCSX 1150B2F	1562	38.18	1.21	4.23	35.45	85.40	7.50	4.48	8.95
ATX 3039 B2R	1556	43.48	1.16	3.90	28.00	84.30	6.10	4.15	8.78
BX 1254LLB2	1548	42.73	1.22	4.88	33.43	85.50	7.08	5.23	10.18
ATX 81144 B2	1544	40.48	1.24	4.13	32.28	86.25	6.95	5.03	9.85
10R020 B2R2	1514	42.00	1.12	4.43	29.23	84.75	6.35	4.88	9.58
BX 1262B2F	1509	41.75	1.17	4.38	31.75	84.88	7.23	4.83	9.03
BX 1252LLB2	1483	40.35	1.19	4.35	32.53	85.10	7.18	4.48	8.78
BX 1261B2F	1241	37.43	1.20	3.73	30.60	85.13	6.70	4.18	8.50
UA 48	1167	38.30	1.29	4.85	38.70	87.33	7.18	5.18	10.08
Overall Mean	1640	42.29	1.19	4.47	31.35	85.29	7.07	4.75	9.04
LSD(0.05)	166	0.86	0.02	0.29	1.71	1.19	0.38	0.38	0.85
C.V. %	7.13	1.43	1.33	4.65	3.86	0.98	3.78	5.66	6.67

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

Table 20. Mean yield performance and fiber characteristics for CAST varieties cultivated on an irrigated Bosket very fine sandy loam at the Delta Research and Experiment Station near Stoneville, Mississippi, during 2011.

Variety	Lint yield[1]	Lint	Length	Mic.	Strength	Uniformity	Elongation	Ind. boll weight	100 seed weight
	lb/A	*%*	*in*		*g/tex*	*%*	*%*	*g*	*g*
DP 1219 B2RF	**1021**	41.98	1.17	5.03	33.05	84.05	6.88	4.00	9.55
11R159 B2R2	**989**	42.03	1.19	5.10	32.10	84.35	6.88	4.10	9.45
DP 1212 B2RF	919	39.25	1.20	5.03	31.18	84.48	7.60	4.13	10.18
ST 5458B2RF	900	38.85	1.14	5.38	30.95	82.95	6.90	4.30	10.30
10R051 B2R2	860	41.85	1.19	5.00	28.83	84.95	7.50	4.28	9.78
DP 1044 B2RF	839	38.80	1.16	4.90	30.05	84.33	7.60	3.83	9.53
10R020 B2R2	827	38.78	1.11	5.23	28.43	83.05	6.60	4.63	10.40
PHY 375 WRF	816	40.48	1.13	4.98	29.80	82.73	6.90	4.18	10.33
DP 0912 B2RF	814	38.45	1.13	5.25	30.33	83.20	7.05	3.98	9.50
DG CT11212	809	39.35	1.18	5.20	29.30	84.63	7.55	3.83	10.05
DP 1252 B2RF	797	42.90	1.20	5.03	29.75	85.08	7.48	4.33	9.40
DG CT11622	745	40.68	1.20	4.98	29.10	84.78	7.68	4.05	10.00
AMX 003 B2	736	41.20	1.12	5.10	27.25	82.10	6.83	3.85	9.43
ATX 9C253	697	39.83	1.14	5.45	33.60	83.73	6.95	4.55	10.48
ATX 9W2863	642	37.23	1.22	5.40	32.88	84.18	7.35	4.45	10.95
Overall Mean	827	40.11	1.16	5.13	30.44	83.90	7.18	4.16	9.95
LSD(0.05)	96	0.98	0.04	0.19	1.34	0.99	0.30	0.50	0.71
C.V. %	8.09	1.71	2.15	2.52	3.08	0.82	2.93	8.43	5.03

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

Table 21. Loan value schedule of premiums and discounts for Official varieties averaged across all testing locations in Mississippi during 2011.[1]

Variety	Lint yield	Turnout	Seed yield	Lint value	Seed value	Gross return
	lb/A	*%*	*lb/A*	*$/A*	*$/A*	*$/A*
AM 1550 B2RF	1218	39.40	1949	658	341	999
DG 2450 B2RF	1172	39.00	1876	635	328	963
DG 2570 B2RF	1224	39.90	1958	668	343	1011
DP 0912 B2RF	1339	39.60	2142	730	375	1105
DP 1028 B2RF	1324	43.10	2118	720	371	1091
DP 1034 B2RF	1303	42.10	2086	710	365	1075
DP 1048 B2RF	1226	41.80	1961	667	343	1010
DP 1133 B2RF	1326	43.30	2121	725	371	1096
DP 1137 B2RF	1266	42.20	2026	689	355	1044
FM 1740B2F	1246	40.40	1993	680	349	1029
HQ 210 CT	948	37.50	1517	517	265	782
HQ 212 CT	881	37.20	1410	480	247	727
PHY 367 WRF	1214	39.50	1942	663	340	1003
PHY 375 WRF	1302	41.10	2084	708	365	1073
PHY 499 WRF	1365	42.50	2184	745	382	1127
PHY 565 WRF	1142	39.50	1828	624	320	944
ST 4145LLB2	1152	37.90	1842	629	322	951
ST 4288B2F	1213	36.90	1941	660	340	1000
ST 5288B2F	1382	39.90	2211	750	387	1137
ST 5458B2RF	1388	39.30	2221	758	389	1147

[1]Loan price was determined by entering fiber and yield data into the cotton loan calculator for 2011. The calculator was developed by Larry Falconer (Texas A&M) with funding provided by Cotton Inc. The loan calculator can be found at http://www.cottoninc.com/Decision-Aids/?S=ProductionEconomics. Values expressed represent USDA premium and discount schedules for cotton CCC loan program. The information provided utilizes the following assumptions to model price: (1) Presumption of a standard leaf and color grade (41-2); (2) Estimates of $350 ton for seed value; (3) Estimates of $3.20 picking and moduling cost per hundredweight of seedcotton; and (4) Ginning cost of $0.12 per pound of lint.

Table 22. Loan value schedule of premiums and discounts for NEW varieties averaged across all testing locations in Mississippi during 2011.[1]

Variety	Lint yield	Turnout	Seed yield	Lint value	Seed value	Gross return
	lb/A	*%*	*lb/A*	*$/A*	*$/A*	*$/A*
10R020 B2R2	1079	39.30	1726	583	302	885
10R051 B2R2	1295	42.80	2073	703	363	1066
DP 1252 B2RF	1176	44.20	1881	637	329	966
11R159 B2R2	1277	42.10	2043	697	358	1055
AM 1511 B2RF	1332	42.20	2131	727	373	1100
ATX 3039 B2RF	1145	40.90	1832	619	321	940
ATX 81144 B2RF	1155	38.70	1848	632	323	955
ATX LA122	1216	41.00	1946	657	341	998
BCSX 1150B2F	1044	35.70	1671	570	292	862
BX 1252LLB2	1068	38.30	1709	582	299	881
BX 1254LLB2	1193	40.50	1909	652	334	986
BX 1261B2F	961	36.10	1538	523	269	792
BX 1262B2F	1020	39.20	1633	556	286	842
CG 3787 B2RF	1279	42.30	2046	692	358	1050
DP 0912 B2RF	1230	39.40	1968	641	344	985
DP 1212 B2RF	1176	39.40	1881	642	329	971
DP 1219 B2RF	1266	41.10	2026	691	355	1046
DP 1252 B2RF	1176	44.20	1881	637	329	966
PHY 375 WRF	1174	40.80	1878	635	329	964
ST 5458B2RF	1224	39.30	1958	667	343	1010
UA 48	902	36.60	1443	474	253	727

[1]Loan price was determined by entering fiber and yield data into the cotton loan calculator for 2011. The calculator was developed by Larry Falconer (Texas A&M) with funding provided by Cotton Inc. The loan calculator can be found at http://www.cottoninc.com/Decision-Aids/?S=ProductionEconomics. Values expressed represent USDA premium and discount schedules for cotton CCC loan program. The information provided utilizes the following assumptions to model price: (1) Presumption of a standard leaf and color grade (41-2); (2) Estimates of $350 ton for seed value; (3) Estimates of $3.20 picking and moduling cost per hundredweight of seedcotton; and (4) Ginning cost of $0.12 per pound of lint.

Table 23. Loan value schedule of premiums and discounts for Commercial Advanced Strain varieties tested in Mississippi during 2011.[1]

Variety	Lint yield	Turnout	Seed yield	Lint value	Seed value	Gross return
	lb/A	*%*	*lb/A*	*$/A*	*$/A*	*$/A*
10R020 B2R2	827	38.8	1323	428	119	547
10R051 B2R2	860	41.9	1376	447	124	571
11R159 B2R2	989	42.0	1582	517	142	659
AMX 003 B2RF	736	41.2	1178	379	106	485
ATX 9C253 B2RF	697	39.8	1115	357	100	457
ATX 9W2863	642	37.2	1027	328	92	420
DG CT11212	809	39.4	1294	420	116	536
DG CT11622	745	40.7	1192	403	107	510
DP 0912 B2RF	814	38.5	1302	423	117	540
DP 1044 B2RF	839	38.8	1342	456	121	577
DP 1212 B2RF	919	39.3	1470	481	132	613
DP 1219 B2RF	1021	42.0	1634	534	147	681
DP 1252 B2RF	797	42.9	1275	416	115	531
PHY 375 WRF	816	40.5	1306	442	118	560
ST 5458B2RF	900	38.9	1440	459	130	589

[1]Loan price was determined by entering fiber and yield data into the cotton loan calculator for 2011. The calculator was developed by Larry Falconer (Texas A&M) with funding provided by Cotton Inc. The loan calculator can be found at http://www.cottoninc.com/Decision-Aids/?S=ProductionEconomics. Values expressed represent USDA premium and discount schedules for cotton CCC loan program. The information provided utilizes the following assumptions to model price: (1) Presumption of a standard leaf and color grade (41-2); (2) Estimates of $350 ton for seed value; (3) Estimates of $3.20 picking and moduling cost per hundredweight of seedcotton; and (4) Ginning cost of $0.12 per pound of lint.

Appendix 1. Dates of agronomically important events for all cotton variety trials and locations in Mississippi during 2011.

Event	Location and soil texture[1]							
	Clarksdale FSL	Rolling Fork VFSL	Schlater[2] SCL	Senatobia SL	Starkville[3] FSL	Stoneville VFSL	Tribbett SCL	Verona SL
	date	*date*	*date*	*date*	*date*	*date*	*date*	*date*
Planting date	5/10	5/11	5/10	5/10	6/1	5/24	5//23	5/20
Irrigation	No	No	Yes	No	No	Yes	Yes	No
N application	5/28, 6/13	5/24	—	4/14, 5/30	3/22, 5/11, 7/1	3/3,3/18, 4/25	2/22, 5/10	6/15
Pre herbicide	5/10	5/10	5/10	4/14, 5/10	6/2	5/24	5/12, 5/23	5/20
Early post herbicide	6/30, 7/2	6/10	—	6/24	7/1	6/20, 6/29	6/10, 6/27	5/31, 6/6, 6/9
Layby herbicide	7/18	—	—	6/30	7/11	7/11	7/13	6/14
Early insecticide	5/28, 6/7, 6/17,6/25	5/24, 6/8, 6/17, 6/27	—	6/24	—	—	6/27	6/2, 6/27
Mid insecticide	6/30, 7/12, 7/20, 7/27	7/1, 7/11 7/15, 7/20, 7/25	—	—	—	7/1, 7/8, 7/21, 7/27	7/11, 7/14, 7/21, 7/27	7/6, 7/12, 7/19
Late insecticide	8/4, 8/15, 8/23	8/4, 8/13, 8/22	—	—	8/16, 9/12	8/4, 8/8	8/5, 8/8	8/1, 8/8
PGR	7/12	7/15, 7/20	—	8/1	8/5, 8/16	8/4, 8/8	8/5	8/8
Harvest aid	9/28, 10/8	10/4	—	9/8	10/4, 10/14	10/1, 10/7	10/3, 10/8	9/27, 10/3, 10/10
Harvest	10/11	10/17	10/10	9/27	10/26	10/13	10/19	10/12

[1]FSL = Fine sandy loam, VFSL = Very-fine sandy loam, SCL = Silty clay loam, SL = Silt loam.
[2]Schlater location was sprayed, but dates for management application were unavailable at publication time.
[3]Starkville location was irrigated once within a week of planting due to concerns with obtaining a uniform stand.

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