Variety Performances in 2010 Mississippi State Cotton Variety Trials

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Abstract

To aid Mississippi cotton producers in variety selection decisions, cotton varieties are tested and evaluated annually at locations across the state representing a wide range of soil and climatic conditions. Varieties submitted for testing were divided into two groups: Cotton Variety Trial (CVT) and New Entry Test. The CVT was comprised of thirty-four varieties and was grown at five Delta region locations (Stoneville, Clarksdale, Rolling Fork, Tribbett, Itta Bena) and four Hill region locations (Miss. State, Senatobia, Raymond, and Verona). The New Entry Test was comprised of thirteen varieties and was grown at four locations: Stoneville, Tribbett, Miss. State, and Verona. The New Entry Test provides for the evaluation of varieties not previously tested in the Mississippi Cotton Variety Trials but are scheduled for commercial release within one year. Commercial varieties PHY 375 WRF, DP 0912 B2RF, and ST 5458 B2RF were included as common "check" varieties in all trials. Yield and fiber quality data will be presented.

Introduction

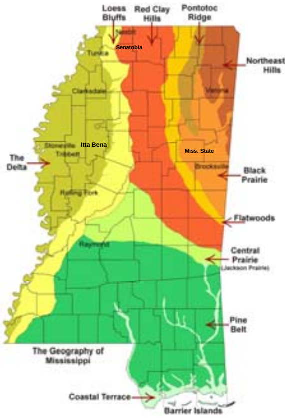
All test plots consisted of two rows, 40 feet in length, with a row spacing of 38 or 40 inches. Experimental design for each trial consisted of a Randomized Complete Block with 4 replications. Recommended management practices were followed in each test. The on-farm cooperators decided planting dates, fertilizer rates, amount of supplemental irrigation, defoliation dates, insect and weed control strategies, and harvest dates.

The OVT was conducted at five Delta locations (Stoneville, Clarksdale, Rolling Fork, Tribbett, Itta Bena) and four Hill locations (Miss. State, Senatobia, Raymond, and Verona). NEW entry test was conducted at four locations: Stoneville, Tribbett, Miss. State, and Verona. Commercial varieties ST5458B2RF, DP0912B2RF and PHY375WRF were designated as check varieties in the tests.

Varieties were evaluated under standard management practices, including chemical control of weeds and insects with conventional herbicides and insecticides. For transgenic varieties, any potential advantage due to trans-genes was not evaluated.

Estimation of lint percentage, boll size, seed index (weight in grams of 100 fuzzy seed), and fiber properties was based upon handpicked 50-boll samples from 4 replications at each location. Samples were ginned on a 10-inch laboratory saw gin. HVI fiber property determinations were made by Starlab, Inc., Knoxville, TN. Yield determinations were based on the weight of seed cotton mechanically harvested from two-row plots and the seed cotton weight of the hand picked samples.

Loan Price was determined by entering OVT fiber data into the Cotton Loan 2010 Calculator. The Loan Calculator was developed through funding from Cotton Incorporated by Dr. Larry Falconer, Texas A&M Corpus Christi. The values are based on USDA premium and discount schedules for cotton entering the Commodity Credit Corporation (CCC) loan program (US National Loan Rate is $0.52 per lb of lint for standard fiber characteristics). The information presented presumes a standard leaf and color grade since this information is needed to calculate the values and is not available from OVT data. Color and leaf grade different than standard grades might affect the results. Value per Acre is simply the Loan Price multiplied by the lint yield per acre. 2010 Crop Cotton Loan Evaluation Program was used to calculate the Gross Return value. Calculations were based on fiber properties, lint yield and a seed value of $140/ton. Gross Return Value provides a figure that incorporates both yield and fiber quality. Results from this research are intended to be an aid for the growers to select varieties for next growing season. Certain data will also be of interest to ginners, millers, and other sectors of cotton industry.



Results and Conclusions

The main feature of 2010 was prolonged hot temperatures, both day and night, which for most locations, resulted in very fast development and early cut-out. The exception to earliness was where worms or plant bugs resulted in fruit loss and a later top crop.

The results of OVT were presented in Table 1, 2, 3 and 4; NEW entry Test results were reported in Table 5, and 6; Tables 7 & 8 show the two and three year averages for OVT test in both Delta and Hill region. All result value represent least squares means. Table 9 is a summary of the growing conditions at each location.

At the bottom of by location data tables are summary of statistics, which are very important in interpreting the test results. Despite efforts to provide a uniform test environment, all experiments are subject to a certain degree of error due to variation between plots arising from differences in soil type, fertility, insect damage, weed pressure, etc. Therefore, yield potential (and performance with respect to other characteristics) cannot be measured with complete accuracy. By conducting replicated trials we can account for or remove some, but not all of the effect of non-uniform conditions among plots. As a result, the mean performance of some varieties may be numerically different, but not statistically different when variability in the test is taken into account. The Least Significant Difference (LSD) value estimates the smallest difference between two varieties that should be considered something other than natural variation.

The coefficient of variation (CV) is a measure of relative precision of a given trial and is generally considered to be an estimate of the amount of unexplained variation in that trial. In general, the higher the CV value, the less precise a given trial. The R2 value is another measure of relative precision. The higher the R2 value, the more precise a given trial.

For the results of over locations, only the averages were presented but not the statistics. Because the growing conditions at these locations are different due to the soil texture, the rainfall, the management level, and so on, the interactions between locations and entries are highly significant.

In any single year or location, a given variety may perform extremely well or extremely poorly due either to chance variation or to its response to environmental conditions in that particular site and year. In order to avoid being misled by performance in a single year and location, it is wise to base variety selection decisions on as many environments as possible. While it is hoped that newer varieties will perform better than older varieties, this is not always the case. Greater confidence can be put in varieties that have performed well over two or more years than can be put in varieties that are in their first year of testing. Producers should consider these new varieties/technologies as not being thoroughly evaluated until multiple year, multiple locations results are available.

These tests do not encompass all growing and environmental conditions in the state, but they provide a guide to producers in selecting among varieties best suited for their growing conditions. The soil texture of each location can be found in the test location information box.

References

2010 Crop Cotton Loan Evaluation Program, developed by Dr. Larry Falconer, Extension Economist, Texas A & M University, Corpus Christi, TX.

Table 1. Average[1] lint yield and fiber quality traits over five locations in 2010 Mississippi State University Delta Region Cotton Variety Trials.

Variety	Lint Yield	Lint Percent	Seed Index	Boll Size	Length	Uniformity Index	Strength	Elongation	Micronaire
	lb/a	%	g	g	inch	%	g/tex	%	mic
PHY 499 WRF	1624	43.52	9.61	4.85	1.11	84.48	32.61	7.98	5.26
ST 5458 B2RF ck	1552	40.09	10.23	4.96	1.11	83.50	30.66	7.00	5.42
DP 0920 B2RF	1497	40.96	9.09	4.43	1.11	83.84	27.46	6.98	5.13
09R555B2R2	1487	42.96	9.21	4.57	1.13	84.96	31.94	7.49	5.19
ST 5288 B2F	1474	40.35	9.09	4.75	1.10	83.60	29.30	7.17	5.50
DP 1028 B2RF	1470	43.90	9.03	4.61	1.12	84.61	28.77	7.43	5.07
DP 1032 B2RF	1459	42.58	8.82	4.61	1.13	83.85	29.98	6.80	5.03
PHY 367 WRF	1456	40.68	9.46	4.53	1.13	83.77	29.44	7.27	4.92
ST 4288 B2F	1455	37.32	10.54	5.06	1.13	83.60	28.15	6.80	4.98
DP 0912 B2RF ck	1454	39.27	9.72	4.62	1.08	83.62	29.70	7.30	5.41
PHY 375 WRF ck	1416	41.45	9.59	4.52	1.11	84.28	29.40	6.92	4.96
AM 1550 B2RF	1393	40.06	9.83	4.88	1.08	83.30	27.80	6.88	4.95
DP 1034 B2RF	1390	42.53	9.18	4.56	1.13	84.39	28.18	7.29	4.94
DP 0935 B2RF	1382	41.60	9.74	4.94	1.09	83.73	28.53	6.85	4.99
09R619B2R2	1370	42.42	9.39	4.80	1.12	84.48	28.59	7.28	5.00
PHY 485 WRF	1361	39.25	9.41	4.22	1.11	84.39	31.84	8.08	5.16
PHY 569 WRF	1353	39.97	9.68	4.21	1.11	84.79	32.36	8.17	5.17
CG 3220 B2RF	1346	39.80	10.20	4.88	1.11	84.03	29.32	7.39	5.03
DG 2570 B2RF	1345	40.36	9.84	5.05	1.10	84.11	29.88	7.66	5.17
DP 0924 B2RF	1342	39.37	9.75	4.46	1.09	83.96	29.56	7.25	5.24
FM 1740 B2F	1341	40.62	10.35	4.87	1.11	84.07	30.30	6.82	5.12
PHY 565 WRF	1327	39.87	9.50	4.16	1.14	84.86	31.95	7.72	4.94
DP 1048 B2RF	1317	42.50	9.10	4.55	1.14	84.32	28.48	7.33	4.93
CG 4020 B2RF	1305	38.54	9.77	4.60	1.12	83.90	27.58	6.95	4.75
DG 2450 B2RF	1296	38.52	9.89	4.30	1.12	84.11	28.07	6.80	4.78
CG 3035 RF	1285	41.26	9.95	4.96	1.10	84.25	29.92	7.78	5.10
10R052B2R2	1262	43.74	9.05	4.55	1.12	84.33	28.89	7.47	5.09
CG 3520 B2RF	1253	38.16	9.67	4.36	1.12	84.00	27.79	7.31	4.91
CG 3020 B2RF	1224	37.45	10.24	4.64	1.09	84.13	29.06	7.26	4.81
DP 0949 B2RF	1216	40.80	9.45	4.47	1.12	84.03	31.08	7.34	5.25
DP 1050 B2RF	1169	42.68	9.38	4.62	1.14	84.67	28.52	7.29	4.97
FM 1845 LLB2	1168	38.00	11.05	5.10	1.16	84.79	33.10	6.96	5.28
FM 1773 LLB2	1146	36.56	10.88	5.32	1.18	84.45	33.24	6.64	5.29
SSG-HQ 210 CT	983	37.42	9.43	4.84	1.10	83.53	31.90	7.06	5.26
MEAN	1351	40.43	9.68	4.67	1.12	84.14	29.80	7.25	5.09
REPS	20	20	20	20	20	20	20	20	20

[1]Least squares means.

Table 2. Average[1] lint yield for each location in the 2010 Mississippi State University Delta Region Cotton Variety Trials.

Variety	Stoneville	Clarksdale	Rolling Fork	Itta Bena	Tribbett	OVER LOCATIONS
	lb/a	lb/a	lb/a	lb/a	lb/a	lb/a
PHY 499 WRF	1604	1771	1445	1728	1572	1624
ST 5458 B2RF ck	1711	1608	1591	1194	1654	1552
DP 0920 B2RF	1568	1577	1542	1313	1487	1497
09R555B2R2	1594	1577	1349	1456	1462	1487
ST 5288 B2F	1526	1583	1617	1360	1283	1474
DP 1028 B2RF	1274	1529	1470	1532	1546	1470
DP 1032 B2RF	1602	1342	1476	1334	1541	1459
PHY 367 WRF	1516	1619	1371	1251	1522	1456
ST 4288 B2F	1327	1751	1466	1275	1457	1455
DP 0912 B2RF ck	1555	1491	1485	1337	1400	1454
PHY 375 WRF ck	1343	1562	1355	1313	1507	1416
AM 1550 B2RF	1425	1579	1389	1181	1390	1393
DP 1034 B2RF	1287	1424	1521	1361	1358	1390
DP 0935 B2RF	1271	1500	1510	1303	1327	1382
09R619B2R2	1244	1427	1345	1372	1462	1370
PHY 485 WRF	1471	1509	1354	1071	1399	1361
PHY 569 WRF	1471	1437	1157	1327	1374	1353
CG 3220 B2RF	1417	1396	1329	1220	1369	1346
DG 2570 B2RF	1336	1436	1339	1291	1326	1345
DP 0924 B2RF	1319	1589	1247	1243	1312	1342
FM 1740 B2F	1459	1243	1461	1059	1482	1341
PHY 565 WRF	1322	1483	1271	1196	1364	1327
DP 1048 B2RF	1314	1324	1073	1338	1537	1317
CG 4020 B2RF	1303	1384	1334	1034	1470	1305
DG 2450 B2RF	1390	1246	1322	1195	1325	1296
CG 3035 RF	1424	1561	1255	1080	1106	1285
10R052B2R2	1014	1380	1203	1345	1370	1262
CG 3520 B2RF	1326	1220	1251	1207	1263	1253
CG 3020 B2RF	1303	1262	1314	1060	1181	1224
DP 0949 B2RF	1121	1322	1227	1196	1217	1216
DP 1050 B2RF	916	1327	1176	1177	1247	1169
FM 1845 LLB2	1141	1357	1056	1076	1212	1168
FM 1773 LLB2	1141	1181	1124	1132	1152	1146
SSG-HQ 210 CT	1007	1127	1037	829	918	983
MEAN	1354	1445	1337	1247	1370	1351
LSD (P=.05)	176	242	177	203	211	90.2
R-Square	0.75	0.61	0.67	0.63	0.60	0.68
CV (%)	9.29	11.94	9.46	11.63	11	10.8
REPS	4	4	4	4	4	4

[1]Least squares means.

Table 8. Average lint yield and fiber quality traits over three years (2008-2010) in the Mississippi State University Cotton Variety Trials.

Variety	Lint Yield	Lint Percent	Seed Index	Boll Size	Length	Uniformity Index	Strength	Elongation	Micronaire
	lb/a	%	g	g	inch	%	g/tex	%	mic
ST 5458 B2RF	1234	40.73	10.44	5.32	1.17	84.1	30.1	6.8	5.0
FM 1740 B2F	1215	41.83	10.57	5.33	1.16	84.9	29.4	6.7	4.8
PHY 485 WRF	1166	40.01	9.69	4.69	1.15	84.9	30.6	7.7	4.9
PHY 375 WRF	1146	42.01	9.83	4.86	1.14	84.5	28.4	6.8	4.6
DG 2570 B2RF	1094	41.21	10.87	5.36	1.14	84.7	29.1	7.4	4.8
AM 1550 B2RF	1069	40.64	10.83	5.13	1.12	84.2	27.2	6.8	4.6
CG 4020 B2RF	1020	39.32	9.88	4.77	1.17	84.7	26.8	6.8	4.4
CG 3035 RF	1015	42.06	9.98	5.28	1.14	84.7	28.7	7.4	4.7
CG 3220 B2RF	1014	40.28	10.23	5.11	1.15	84.5	28.2	7.1	4.8
CG 3520 B2RF	959	38.71	9.72	4.49	1.16	84.6	26.3	7.0	4.5
CG 3020 B2RF	957	38.46	10.06	4.82	1.13	84.4	27.2	6.9	4.4
MEAN	**1081**	**40.40**	**10.05**	**5.01**	**1.15**	**84.6**	**28.4**	**7.0**	**4.7**

Table 3. Average[1] lint yield and fiber quality traits for four locations in 2010 Mississippi State University Hill Region Cotton Variety Trials.

Variety	Lint Yield	Lint Percent	Seed Index	Boll Size	Length	Uniformity Index	Strength	Elongation	Micronaire
	lb/a	%	g	g	inch	%	g/tex	%	mic
PHY 499 WRF	1468	45.71	9.20	4.66	1.09	84.89	31.42	7.84	5.08
DP 1028 B2RF	1445	45.22	9.07	4.55	1.11	84.32	28.64	7.29	5.08
DP 0935 B2RF	1421	43.50	9.76	4.88	1.09	83.51	28.75	6.79	4.87
DP 1034 B2RF	1419	44.46	9.27	4.61	1.13	84.18	28.55	7.22	4.89
09R619B2R2	1400	44.18	9.34	4.75	1.10	84.61	28.37	7.09	4.94
DP 1032 B2RF	1394	44.24	9.18	4.40	1.13	84.13	29.74	6.70	5.01
10R052B2R2	1392	45.63	9.14	4.57	1.12	84.36	28.49	7.34	5.01
DP 1050 B2RF	1370	45.07	9.28	4.47	1.13	84.35	28.23	7.06	4.88
ST 5288 B2F	1357	41.79	9.14	4.79	1.09	83.41	28.44	6.92	5.21
DP 0912 B2RF ck	1344	41.59	9.79	4.57	1.07	83.83	29.38	7.10	5.21
DP 1048 B2RF	1322	44.41	9.23	4.57	1.13	84.41	27.81	7.17	4.89
09R555B2R2	1321	44.96	9.02	4.41	1.13	84.41	31.56	7.31	5.04
DG 2570 B2RF	1294	42.40	9.82	4.96	1.09	84.23	29.11	7.43	4.95
ST 5458 B2RF ck	1280	41.77	10.08	4.91	1.11	83.44	29.84	6.92	5.19
DP 0924 B2RF	1280	41.29	9.86	4.40	1.08	83.73	29.38	7.15	5.08
PHY 367 WRF	1277	42.60	9.22	4.22	1.12	83.99	29.04	7.05	4.74
DP 0920 B2RF	1275	42.56	9.36	4.42	1.10	83.69	27.30	6.78	4.91
PHY 565 WRF	1262	41.37	9.39	4.25	1.12	84.33	31.53	7.67	4.91
AM 1550 B2RF	1258	42.68	9.62	4.83	1.07	83.68	26.76	6.63	4.81
PHY 375 WRF ck	1252	43.30	9.39	4.56	1.09	83.72	29.76	6.87	4.79
PHY 569 WRF	1225	41.42	9.35	3.95	1.09	84.42	30.76	7.84	5.10
FM 1740 B2F	1220	42.33	10.11	4.86	1.11	83.89	29.27	6.62	4.84
DG 2450 B2RF	1211	41.34	9.53	4.35	1.11	84.00	27.36	6.60	4.67
CG 3220 B2RF	1202	42.26	9.96	4.71	1.10	84.38	29.19	7.33	4.95
FM 1845 LLB2	1167	39.88	11.07	5.14	1.17	84.80	32.68	6.79	5.00
ST 4288 B2F	1164	39.38	10.52	5.07	1.11	83.64	27.82	6.71	4.90
DP 0949 B2RF	1158	43.12	9.55	4.27	1.10	83.86	29.89	7.09	5.09
PHY 485 WRF	1148	40.86	9.36	4.12	1.09	83.87	31.06	7.58	5.05
FM 1773 LLB2	1128	39.19	11.33	5.23	1.15	83.81	32.53	6.59	5.07
CG 3035 RF	1117	43.53	9.84	4.77	1.08	84.11	29.32	7.57	5.03
CG 3520 B2RF	1109	40.27	9.68	4.42	1.11	84.09	27.79	7.02	4.63
CG 4020 B2RF	1064	40.56	9.54	4.32	1.12	84.07	27.32	6.76	4.53
CG 3020 B2RF	1021	39.29	9.75	4.37	1.07	84.13	27.48	6.83	4.43
SSG-HQ 210 CT	948	39.44	9.42	4.52	1.10	83.55	31.61	6.98	5.34
MEAN	1256	42.40	9.62	4.58	1.11	84.05	29.29	7.08	4.94
REP	16	16	16	16	16	16	16	16	16

[1]Least squares means.

Table 4. Average[1] lint yield for each location in 2010 Mississippi State University Cotton Variety Trials.

Variety	Senatobia	Raymond	MS State	Verona	OVER LOCATIONS
	lb/a	lb/a	lb/a	lb/a	lb/a
PHY 499 WRF	1168	1372	1963	1370	1468
DP 1028 B2RF	1239	1445	1839	1257	1445
DP 0935 B2RF	1301	1276	1811	1294	1421
DP 1034 B2RF	1204	1253	1944	1274	1419
09R619B2R2	1146	1371	1804	1280	1400
DP 1032 B2RF	1384	1260	1697	1235	1394
10R052B2R2	1213	1356	1778	1222	1392
DP 1050 B2RF	1181	1363	1725	1212	1370
ST 5288 B2F	1344	1284	1636	1163	1357
DP 0912 B2RF ck	1432	1202	1527	1214	1344
DP 1048 B2RF	1204	1271	1612	1200	1322
09R555B2R2	1195	1230	1610	1249	1321
DG 2570 B2RF	1262	1064	1587	1264	1294
ST 5458 B2RF ck	1268	981	1569	1302	1280
DP 0924 B2RF	1306	1144	1469	1199	1280
PHY 367 WRF	1092	1210	1516	1288	1277
DP 0920 B2RF	1297	1097	1518	1187	1275
PHY 565 WRF	968	1217	1660	1205	1262
AM 1550 B2RF	1098	1093	1646	1195	1258
PHY 375 WRF ck	1160	1158	1403	1288	1252
PHY 569 WRF	999	1234	1563	1105	1225
FM 1740 B2F	1055	1179	1423	1223	1220
DG 2450 B2RF	1262	1083	1351	1136	1211
CG 3220 B2RF	1060	1075	1449	1226	1202
FM 1845 LLB2	992	1054	1549	1071	1167
ST 4288 B2F	1135	990	1473	1059	1164
DP 0949 B2RF	1138	1029	1284	1181	1158
PHY 485 WRF	937	1051	1456	1149	1148
FM 1773 LLB2	1015	970	1441	1087	1128
CG 3035 RF	586	1124	1560	1198	1117
CG 3520 B2RF	1195	1048	1072	1120	1109
CG 4020 B2RF	1004	904	1240	1107	1064
CG 3020 B2RF	953	929	1112	1090	1021
SSG-HQ 210 CT	415	1083	1314	982	948
MEAN	1124	1159	1547	1192	1256
LSD (P=.05)	247	160	244	93	88
R-Square	0.64	0.72	0.66	0.69	0.78
CV (%)	15.7	9.84	11.26	5.60	11.3
REPS	4	4	4	4	4

[1]Least squares means.

Table 9. Conditions Summary for 2010 Mississippi Cotton Variety Trial locations.

Location	Soil Texture	Rainfall inches (planting to harvest)	Number of Irrigations	Number of Insecticide Sprays	Planting Date	Harvest Date
Stoneville	Bosket Very Fine Sandy Loam Soil	6.64	5	5	May 24, 2010	October 11, 2010
Clarksdale	Dubbs Soil	10.11	Non-irrigated	5	May 6, 2010	September 22, 2010
Rolling Fork	Silty Clay Soil	11.52	NR	NR	May 7, 2010	October 4, 2010
Tribbett	Forestdale-like Silty Clay Loam Soil	8.16	3	4	May 11, 2010	September 29, 2010
Itta Bena	Dubbs Soil	8.02	NR	NR	May 13, 2010	September 28, 2010
Miss. State	Marietta Fine Sandy Loam	11.59	NR	4	May 19, 2010	October 7, 2010
Versona	Leeper Silty loam	12.19	Non-irrigated	1	June 1, 2010	October 14, 2010
Raymond	Loring Silt Loam	26.15	Non-irrigated	0	May 5, 2010	September 21, 2010
Senatobia	Memphis Silt Loam	9.77	Non-irrigated	5	May 13, 2010	October 5, 2010

NR: Data not reported to date

Table 5. Average[1] lint yield and fiber quality traits over locations in New Entry Test in the 2010 Mississippi State University Cotton Variety Trials.

Variety	Lint Yield	Lint Percent	Seed Index	Boll Size	Length	Uniformity Index	Strength	Elongation	Micronaire
	lb/a	%	g	g	inch	%	g/tex	%	mic
PHY 499 WRF	1551	44.75	9.77	4.73	1.11	84.63	32.62	8.12	5.26
ST 5458 B2RF ck	1490	40.85	10.27	4.95	1.13	83.98	31.13	7.26	5.36
DP 0912 B2RF ck	1444	39.73	9.63	4.54	1.10	83.91	30.27	7.39	5.29
BCSX 1030 B2F	1372	42.36	9.28	4.48	1.11	83.99	27.61	6.88	4.70
PHY 375 WRF ck	1357	42.34	9.65	4.59	1.11	84.10	30.90	7.12	4.92
PHY 519 WRF	1356	41.38	9.93	4.65	1.12	83.91	31.99	7.43	5.09
ALL-TEX LA122	1349	42.52	9.49	4.61	1.14	84.44	29.98	7.56	4.99
NG 4012 B2RF	1332	41.49	9.87	4.94	1.13	84.06	32.51	6.61	4.78
BCSX 1010 B2F	1291	39.69	10.36	4.67	1.15	84.16	29.53	6.60	4.74
NG 4010 B2RF	1213	39.83	10.03	4.72	1.14	84.51	32.66	7.18	4.96
NGx F015 B2RF	1173	38.78	10.26	4.40	1.12	84.17	33.78	7.40	5.14
BCSX 1040 B2F	1140	35.61	10.71	4.73	1.21	85.46	32.80	7.08	4.92
ALL-TEX A102	1124	39.39	10.42	4.82	1.15	84.39	30.87	6.77	4.82
MEAN	1320	40.60	9.97	4.70	1.13	84.3	31.2	7.2	5.1
REPS	4	4	4	4	4	4	4	4	4

[1]Least squares means.

Table 6. Average[1] lint yield for each location in the New Entry Test in the 2010 Mississippi State University Cotton Variety Trials.

Variety	STONEVILLE	TRIBBETT	MS STATE	VERONA	OVER LOCATIONS
	lb/a	lb/a	lb/a	lb/a	lb/a
PHY 499 WRF	1518	1484	2001	1202	1551
ST 5458 B2RF ck	1755	1573	1470	1130	1482
DP 0912 B2RF ck	1570	1554	1540	1124	1447
BCSX 1030 B2F	1587	1434	1375	1091	1372
ALL-TEX LA122	1583	1370	1450	1006	1352
PHY 375 WRF ck	1344	1386	1532	1133	1349
PHY 519 WRF	1249	1161	1902	1082	1348
NG 4012 B2RF	1468	1239	1568	1065	1335
BCSX 1010 B2F	1371	1316	1442	1046	1294
NG 4010 B2RF	1405	1087	1399	962	1213
NGx F015 B2RF	1420	1010	1312	922	1166
BCSX 1040 B2F	1294	1173	1171	889	1132
ALL-TEX A102	1137	925	1490	955	1127
MEAN	1438	1285	1512	1047	1320
LSD (P=.05)	145	274	300	101	
R-Square	0.79	0.62	0.60	0.72	
CV (%)	7.06	14.9	13.90	6.74	
REPS	4	4	4	4	4

[1]Least squares means.

Table 7. Average lint yield and fiber quality traits over two years (2009-2010) in the Mississippi State University Cotton Variety Trials.

Variety	Lint Yield	Lint Percent	Seed Index	Boll Size	Length	Uniformity Index	Strength	Elongation	Micronaire
	lb/a	%	g	g	inch	%	g/tex	%	mic
ST 5288 B2F	1227	40.90	9.39	5.07	1.15	84.5	28.3	7.0	5.0
ST 5458 B2RF	1222	40.36	10.52	5.32	1.16	84.5	29.9	6.9	5.1
DP 0912 B2RF	1178	40.01	9.98	4.94	1.11	84.5	28.9	7.2	5.2
FM 1740 B2F	1156	41.21	10.62	5.27	1.15	85.2	29.3	6.8	4.8
DP 0935 B2RF	1155	41.60	10.17	5.29	1.13	84.6	28.1	6.9	4.8
ST 4288 B2F	1151	38.28	10.83	5.47	1.17	84.8	28.3	6.8	4.9
PHY 485 WRF	1150	39.76	9.79	4.69	1.14	85.1	30.4	7.8	4.9
DP 0920 B2RF	1133	41.44	9.53	4.75	1.14	84.8	26.9	6.9	4.9
PHY 565 WRF	1133	40.93	9.70	4.54	1.18	85.5	31.0	7.5	4.7
PHY 375 WRF	1125	41.73	9.93	4.85	1.14	84.9	28.5	6.8	4.6
DP 0949 B2RF	1115	41.84	9.67	4.70	1.15	84.8	28.8	7.1	5.0
DP 0924 B2RF	1109	40.01	9.92	4.70	1.12	84.6	28.9	7.2	5.0
DG 2570 B2RF	1089	41.08	10.20	5.36	1.13	84.9	29.0	7.4	4.9
AM 1550 B2RF	1080	40.45	10.18	5.18	1.12	84.4	27.1	6.8	4.7
CG 3220 B2RF	1018	39.92	10.41	5.19	1.14	84.9	28.5	7.3	4.8
CG 4020 B2RF	1005	38.88	9.89	4.80	1.17	84.9	26.9	6.9	4.4
CG 3035 RF	992	41.96	10.07	5.27	1.13	84.9	28.8	7.6	4.8
FM 1845 LLB2	989	38.12	11.35	5.53	1.22	85.9	32.3	6.9	4.9
CG 3520 B2RF	970	38.47	9.89	4.57	1.15	85.0	26.5	7.1	4.6
CG 3020 B2RF	936	38.05	10.23	4.85	1.12	84.7	27.4	7.0	4.4
MEAN	**1097**	**40.25**	**10.11**	**5.02**	**1.15**	**84.9**	**28.7**	**7.1**	**4.8**

[1]Least squares means.

DELTA REC

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For more detailed information, please visit: http://msucares.com/crops/variety/