UNIVERSITY OF GEORGIA
EXTENSION

2001 Peanut, Cotton and Tobacco Performance Tests

William Branch, Georgia Seed Development Professor in Peanut Breeding and Genetics
Anton Coy, Senior Agricultural Specialist
James Day, Program Coordinator
Larry Thompson, Agricultural Research Assistant II
O. May, Assistant Professor
Cindy LaHue, Business Manager I

Publication RR 677 published on March 18, 2014

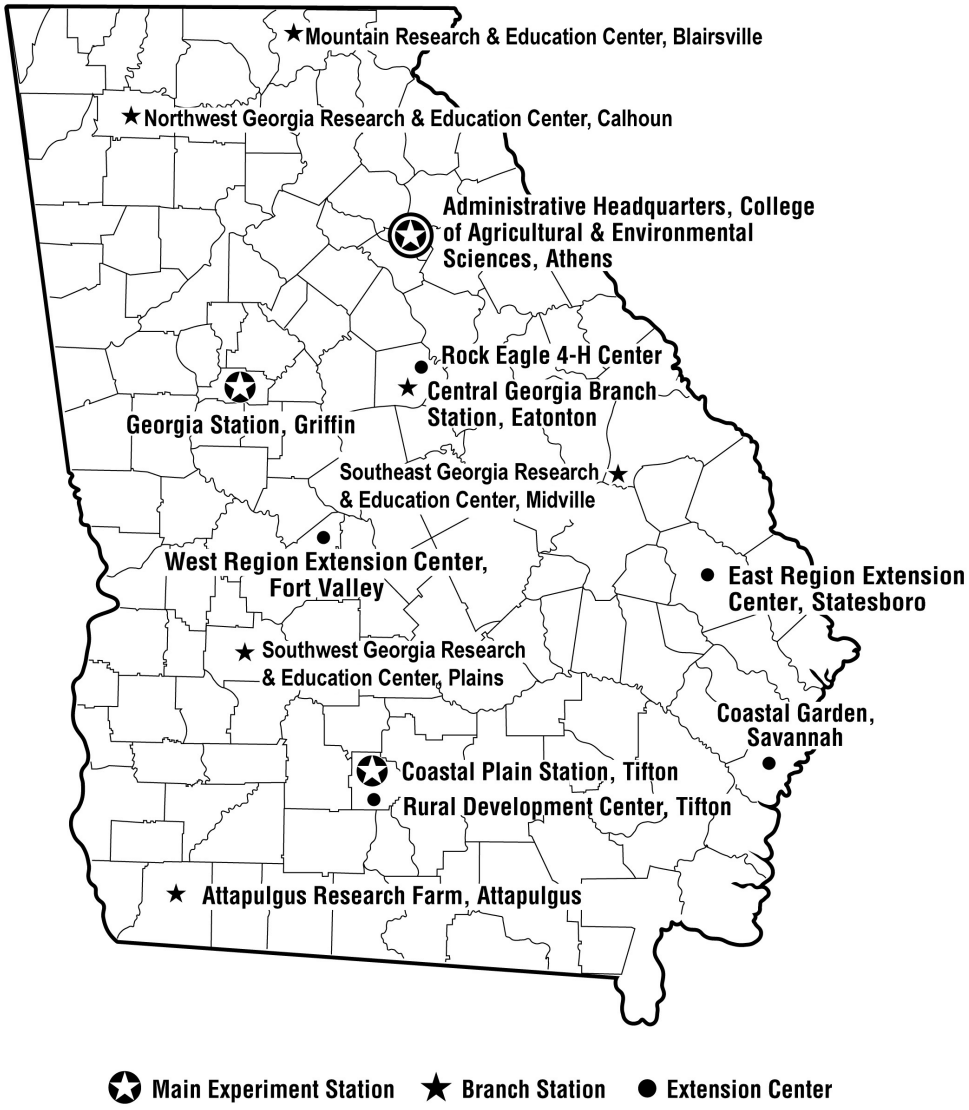
Editors: J. LaDon Day, Anton E. Coy, William D. Branch, O. Lloyd May, Stevan S. LaHue and Larry G. Thompson

Preface

This research report presents the results of the 2001 statewide performance tests of peanut, cotton and tobacco. The tests for various evaluations were conducted at several or all of the following locations: Bainbridge, Tifton, Plains and Midville in the Coastal Plain region and Athens in the Piedmont region. For identification of the test site locations, consult the map below.

Agronomic information such as plant height, lodging, disease occurrence, etc., is listed along with the yield data. Information concerning planting and harvest dates, soil type, and culture and fertilization practices used in each trial is included in footnotes.

In order to have a broad base of information, a number of varieties, including experimental lines, are included in the trials, but this does not imply that all are recommended for Georgia. Varieties best suited to a specific area or for a particular purpose, and agreed upon by College of Agricultural and Environmental Sciences agronomists, are presented in the 2001 Spring Planting Schedule for Georgia (available from your county extension office). Pesticides used for production practices are included for the benefit of the reader and do not imply any endorsement or preferential treatment by the University of Georgia Agricultural Experiment Station. For additional information, contact your local county extension agent or the nearest experiment station.



The least significant difference (LSD) at the 5 or 10 percent levels has been included in the tables to aid in comparing hybrids. If the yields of any two hybrids differ by the LSD value or more, they may be considered different in yield ability.

This report is one of five publications presenting the 2001 performance of agronomic crops in Georgia. For more information concerning other crops, refer to one of the following research reports: 2001 Corn Performance Tests (Report 675); 2000-2001 Small Grains Performance Tests (Report 673); 2000-2001 Canola Performance Tests (Report 674); and 2001 Soybean, Sorghum Grain and Silage, Grain Millet, and Summer Annual Forages Performance Tests

(Report 676).

This report along with performance test information on other crops is also available at our web site: www.swvt.uga.edu.

Additional information may be obtained by writing J. LaDon Day, Crop and Soil Sciences Department, University of Georgia, Georgia Station, Griffin, GA 30223-1797.

The Season: 2001 Rainfall

Growing conditions improved during the 2001 crop season, as a more normal rainfall pattern along with cooler temperatures occurred across most of the state. These favorable weather patterns were a much needed relief to Georgia farmers who battled extreme drought conditions the past three years. Although dry weather impeded planting in May, irrigation helped allow a relatively timely planting of the 2001 Georgia crops. As a result of the favorable weather, the status of crops was good to excellent throughout the growing season.

Rainfall at four Georgia test sites is listed below. Although the total seasonal rainfall amounts were below normal at two sites, distribution of rainfall was good and soil moisture during the growing season was more normal than any year since 1997. Weather during the first two months of the year (data not shown) did not improve and a water shortage emergency was declared; therefore, some farmers participated in the program to take payment not to irrigate their crops during the 2001 crop year. Then, most areas in the state received torrential rainfall during March and June.

2001 Rainfall[1]				
Month	**Athens**[2]	**Midville**	**Plains**	**Tifton**
	---------- *inches* ----------			
March	8.37	8.30	10.67	9.95
April	1.82	1.44	2.39	1.69
May	4.25	2.09	1.33	1.51
June	5.54	4.00	11.57	6.95
July	8.95	1.55	3.70	3.42
August	1.90	1.74	2.65	1.84
September	2.07	3.26	4.98	3.11
October	0.20	0.25	0.12	2.49
Total	33.10	22.63	37.41	30.96
Normal (8 mo)	32.26	31.17	31.99	32.72

[1] Data provided in part by Dr. G. Hoogenboom, Georgia station, Griffin, GA.
[2] Plant Sciences Farm.

Georgia farmers continue to reduce planted acres of some row crops. Peanut and tobacco acreage continued to decline as peanut and tobacco producers planted 480,000 and 27,000 acres of each, down 3 percent and 13 percent, respectively. However, number of planted acres in cotton increased to 1.6 million, 7 percent more than in 2000. Georgia farmers continue to search for drought tolerant crops.

The row crops in Georgia were much improved over the drought damaged crops of the past three years. Although there was some damage and increased incidence in disease brought in by Tropical Storm Allison in June, the overall benefit from the torrential rainfall far outweighed any damaging effect. A dry September and extremely dry October and November helped the harvest season to begin early and progress at a rapid rate. This year, the crop yields in Georgia were near record levels. The state average peanut yield for 2001 was estimated at 3,350 pounds per acre, second in recorded history to the year 1984 (record yield, 3,375 lb/acre in 1984). Peanut production increased 20 percent due to a 24 percent increase in average yield over 2000. Average cotton yield this year was estimated at 710 pounds per acre, 24 percent more than last year. Cotton production increased 32 percent over 2000 and was the most cotton produced during one year in Georgia in 87 years (fourth highest on record, higher in 1911, 1913 and 1914). Tobacco per acre yield increased during 2001 to 2,400 lb/acre (third highest on record), but total production was 6 percent less than 2000 due to the decline in planted acres.

Cooperators

Dr. C.C. Holbrook, Coastal Plain Experiment Station, Tifton, Georgia
Dr. G. Hoogenboom, Georgia Station, Griffin, Georgia
Mr. S.R. Jones, Southwest Branch Station, Plains, Georgia
Mr. R.D. McNeill, IV, Southeast Branch Station, Midville, Georgia
Mr. R.R. Pines, Southwest Branch Station, Plains, Georgia
Mr. R. Smith, College Station, Athens, Georgia
Mr. M.G. Stephenson, Coastal Plain Experiment Station, Tifton, Georgia

Contributors

The following individuals contributed to the gathering of data and to the preparation of this report: R. Brooke, M. Flynn, M. Gilmer, D. Gresham, T. Hancock, G. Henderson, C. Hester, J. Hudgins, E. McGriff, M. May, M. Pippin, and W. Tucker.

Cotton

Earlier Maturity Cotton Variety Performance

Bainbridge, Georgia: Earlier Maturity Cotton Variety Performance, 2001, Irrigated						
Entry	**Lint Yield (lb/acre)**	**Lint (%)**	**Uniformity Index (%)**	**Length (inches)**	**Strength (g/tex)**	**Micronaire (units)**
OA-87	**1454**	44.1	84.2	1.13	29.3	5.1
OA-85	**1368**	43.5	83.6	1.11	31.2	5.1
SG215BR	**1368**	41.8	83.6	1.02	27.5	5.7
PSC355	**1364**	42.1	84.3	1.09	32.0	5.7
SG747	**1353**	43.2	84.7	1.09	28.6	5.5
PM1560BG	**1347**	43.3	83.5	1.07	30.6	5.9
FM966	**1320**	42.5	84.1	1.13	36.7	5.4
SG125BR	**1298**	39.8	84.6	1.14	30.1	5.0
ST4892BR	1261	45.0	83.7	1.04	31.4	5.8
SG501BR	1252	40.0	84.5	1.10	31.1	5.3
BXN47	1243	43.1	84.2	1.12	29.9	5.2
DP51	1239	41.8	85.3	1.11	28.7	5.6
FM958	1227	42.5	84.0	1.15	33.8	5.1
AP1500RR	1224	41.0	83.7	1.13	30.4	4.7
DP451BR	1223	39.9	85.5	1.11	30.2	5.5
DP20B	1212	41.1	83.3	1.11	28.1	5.5
SG105	1210	41.1	84.6	1.11	32.3	5.3
DP491	1198	42.2	84.4	1.19	33.2	4.8
DP422BR	1190	41.5	83.4	1.09	28.0	5.3
DP425RR	1174	40.6	84.4	1.08	29.0	5.5
8806_3_2_35	1172	41.8	85.1	1.12	29.2	5.3
SG521R	1151	42.1	83.7	1.08	28.7	5.0
ST4691B	1143	43.5	85.0	1.15	29.4	5.1
DP428B	1138	39.3	84.7	1.15	29.1	5.4
DP436RR	1136	38.9	84.3	1.11	27.4	5.7
8839_3_10_2	1089	42.1	85.5	1.18	30.9	5.1
ST4793R	1056	44.3	82.5	1.05	30.7	5.7
8806_3_2_2_1	1043	40.7	84.7	1.08	30.5	5.3
8806_3_2_19	975	39.1	85.0	1.13	32.3	5.3
Average	*1222*	*41.2*	*84.4*	*1.12*	*29.8*	*5.4*
LSD 0.10	*176*	*1.9*	*NS*	*0.05*	*2.2*	*0.5*
CV %	*12.2*	*2.7*	*1.2*	*2.5*	*4.2*	*5.4*
Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).						
Planted:	April 30, 2001.					
Harvested:	September 27, 2001					

Fertilization:	165 lb N, 83 lb P_2O_5, and 168 lb K_2O/acre.					
	April	**May**	**June**	**July**	**Aug.**	**Sept.**
Rainfall (in):	-	3.50	9.10	5.40	2.05	1.67
Irrigation (in):	0.75	3.50	-	3.00	1.50	0.75
Trials conducted by Larry Thompson, Grant Henderson, Eddie McGriff, Mitchell May, and Joel Hudgins.						

Midville, Georgia: Earlier Maturity Cotton Variety Performance, 2001, Irrigated

Entry	**Lint Yield (lb/acre)**	**Lint (%)**	**Uniformity Index (%)**	**Length (inches)**	**Strength (g/tex)**	**Micronaire (units)**
PSC355	**1706**	42.4	85.7	1.11	31.4	5.6
DP491	**1628**	44.7	86.9	1.22	32.4	4.9
OA-87	**1619**	44.3	85.1	1.14	29.5	5.3
BXN47	**1543**	43.6	84.8	1.10	30.1	5.4
DP428B	**1534**	41.2	85.7	1.15	26.5	5.1
SG501BR	**1520**	41.2	85.4	1.08	33.1	5.2
ST4892BR	**1513**	43.5	85.1	1.12	31.1	5.4
ST4691B	**1510**	43.8	84.9	1.14	28.2	4.9
PM1560BG	**1506**	43.2	85.2	1.11	30.2	5.4
OA-85	1497	46.6	83.5	1.11	29.9	4.9
8806_3_2_19	1495	41.7	85.9	1.14	32.9	5.3
SG105	1494	42.7	86.5	1.15	30.9	5.0
FM958	1481	42.8	85.3	1.16	34.3	5.2
SG747	1466	44.4	86.3	1.13	28.9	5.4
SG215BR	1425	43.0	85.1	1.08	28.0	5.3
8839_3_10_2	1424	40.1	86.1	1.15	30.7	5.4
SG125BR	1411	41.3	85.1	1.11	29.7	4.7
8806_3_2_2_1	1396	42.4	85.4	1.11	32.0	5.4
FM966	1384	43.4	85.3	1.14	35.5	5.1
8806_3_2_35	1362	43.4	85.7	1.13	30.7	5.4
DP451BR	1360	39.9	85.8	1.15	29.0	5.0
SG521R	1341	42.9	84.9	1.07	28.9	4.9
ST4793R	1334	44.7	84.2	1.07	30.9	5.5
DP422BR	1317	40.0	84.6	1.11	27.8	4.9
DP20B	1314	39.2	85.8	1.16	28.2	5.0
DP425RR	1298	39.9	85.5	1.11	27.7	5.1
DP51	1270	39.6	85.7	1.15	27.4	5.1
AP1500RR	1260	42.3	84.7	1.13	31.8	4.8
DP436RR	1243	40.4	85.3	1.15	27.8	5.2
Average	*1436*	*42.4*	*85.4*	*1.13*	*30.2*	*5.2*

LSD 0.10	*202*	*1.2*	*0.6*	*0.02*	*1.8*	*0.3*
CV %	*12*	*1.7*	*0.4*	*1.4*	*3.5*	*3.7*
Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).						
Planted:	May 7, 2001.					
Harvested:	October 10, 2001.					
Fertilization:	75 lb N, 40 lb P_2O_5, and 40 lb K_2O/acre.					
	April	**May**	**June**	**July**	**Aug.**	**Sept.**
Rainfall (in):	1.69	2.09	5.46	1.32	2.22	3.93
Irrigation (in):	-	.75	.75	1.50	4.50	.75
Trials conducted by Larry Thompson, Grant Henderson, and Bob McNeill IV.						

Plains, Georgia: Earlier Maturity Cotton Variety Performance, 2001, Irrigated

Entry	Lint Yield (lb/acre)	Lint (%)	Uniformity Index (%)	Length (inches)	Strength (g/tex)	Micronaire (units)
PSC355	**1945**	44.8	83.7	1.11	29.4	5.1
FM958	**1941**	43.6	82.7	1.18	32.0	4.8
8839-3-10-2	**1935**	45.2	84.2	1.15	29.4	5.1
SG747	**1913**	45.6	84.6	1.14	28.1	5.2
DP451BR	**1884**	41.2	82.9	1.15	27.6	4.7
SG501BR	**1846**	41.6	83.8	1.10	30.1	4.9
SG125BR	**1827**	41.4	82.8	1.09	29.2	4.7
DP428B	1809	38.6	84.7	1.17	27.5	4.8
ST4892BR	1808	45.2	82.6	1.06	30.0	5.1
OA-85	1808	45.8	81.7	1.12	30.5	4.9
DP491	1802	44.4	83.2	1.22	31.8	4.7
PM1560BG	1798	43.1	83.2	1.11	31.3	4.8
SG215BR	1791	40.5	83.9	1.09	28.0	4.8
FM966	1787	43.3	84.5	1.15	34.6	4.7
ST4793R	1770	45.7	82.3	1.06	29.7	5.1
OA-87	1761	41.3	83.0	1.10	31.1	4.8
ST4691B	1759	42.4	82.2	1.10	29.8	4.8
DP20B	1717	39.5	84.0	1.17	28.9	4.5
8806-3-2-35	1706	43.3	83.4	1.10	29.3	5.1
8806-3-2-19	1705	43.3	82.8	1.11	32.8	4.8
BXN47	1694	43.3	83.6	1.10	29.7	4.9
8806-3-2-2-1	1681	42.1	84.3	1.10	29.9	5.0
SG521R	1662	41.7	84.6	1.11	27.9	4.7
DP425RR	1655	39.9	83.3	1.15	28.7	4.9
DP436RR	1611	37.7	82.2	1.12	27.6	4.4

SG105	1609	40.3	85.3	1.17	31.8	4.9
DP422BR	1608	42.7	82.5	1.11	29.7	4.6
AP1500RR	1556	41.8	82.4	1.13	31.4	4.5
DP51	1538	39.3	82.6	1.13	27.8	4.9
Average	*1756*	*42.3*	*83.3*	*1.12*	*29.8*	*4.8*
LSD 0.10	*118*	*3.7*	*1.3*	*0.03*	*1.9*	*0.3*
CV %	*5.7*	*5.1*	*0.9*	*1.6*	*3.7*	*4.3*
Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).						
Planted:	May 2, 2001.					
Harvested:	October 17, 2001.					
Fertilization:	69 lb N, 54 lb P_2O_5, and 27 lb K_2O/acre.					
	April	**May**	**June**	**July**	**Aug.**	**Sept.**
Rainfall (in):	2.59	1.39	11.94	4.37	2.97	5.33
Irrigation (in):	-	2.60	-	.75	-	-
Trials conducted by Larry Thompson, Grant Henderson, Stan Jones, and Ronnie Pines.						

Tifton, Georgia: Earlier Maturity Cotton Variety Performance, 2001, Irrigated

Entry	Lint Yield (lb/acre)	Lint (%)	Uniformity Index (%)	Length (inches)	Strength (g/tex)	Micronaire (units)
OA-87	**1756**	44.4	84.8	1.16	29.3	4.8
SG215BR	**1734**	40.6	84.7	1.11	28.7	4.7
SG105	**1694**	39.3	85.8	1.20	31.3	4.4
PSC355	**1632**	41.5	84.9	1.17	32.5	5.0
PM1560BG	**1612**	41.4	85.0	1.17	32.4	4.6
DP491	**1609**	41.3	87.0	1.27	32.8	4.4
SG521R	**1604**	40.7	83.7	1.12	30.2	4.7
DP428B	1583	38.5	85.0	1.20	29.1	5.0
FM966	1579	39.6	86.6	1.19	38.1	4.9
ST4892BR	1570	40.5	83.2	1.14	31.7	5.2
FM958	1568	40.7	85.3	1.20	36.9	5.0
BXN47	1560	41.6	83.3	1.12	32.0	4.7
8806_3_2_19	1560	39.0	85.0	1.16	33.4	4.9
8806_3_2_2_1	1545	40.0	85.2	1.16	32.5	4.8
SG501BR	1537	39.4	84.5	1.14	30.5	4.9
SG747	1513	40.4	85.0	1.17	29.6	4.6
SG125BR	1494	39.4	83.0	1.14	31.1	4.5
8839_3_10_2	1487	39.3	85.5	1.20	32.2	5.1
ST4691B	1474	39.7	84.3	1.17	29.7	4.6
DP451BR	1474	38.4	85.1	1.19	29.5	4.5

8806_3_2_35	1470	41.6	84.2	1.14	32.3	4.9
OA-85	1470	42.9	84.4	1.16	32.6	4.4
DP20B	1457	37.0	85.7	1.22	30.8	4.8
DP51	1422	35.4	84.5	1.18	28.5	4.4
DP422BR	1416	38.4	84.5	1.17	28.7	4.2
DP436RR	1334	36.3	84.3	1.18	29.2	4.8
ST4793R	1329	38.2	83.2	1.11	30.8	4.8
AP1500RR	1295	35.8	83.6	1.19	32.6	4.1
DP425RR	1288	37.7	83.9	1.17	29.2	4.8
Average	*1520*	*39.6*	*84.7*	*1.17*	*31.3*	*4.7*
LSD 0.10	*156*	*2.8*	*1.2*	*0.03*	*1.9*	*0.4*
CV %	*8.7*	*4.1*	*0.9*	*1.6*	*3.5*	*5.4*

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

Planted:	April 27, 2001.
Harvested:	September 20, 2001.
Fertilization:	88 lb N, 54 lb P_2O_5, and 108 lb K_2O/acre.
Management:	Telone II applied 3 gal/acre.

	April	**May**	**June**	**July**	**Aug.**	**Sept.**
Rainfall (in):	1.45	1.86	7.68	3.57	2.29	4.70
Irrigation (in):	-	.50	.90	1.80	1.80	-

Trials conducted by Larry Thompson, and Grant Henderson.

Yield Summary for Earlier Maturity Cotton Varieties, 2001

Variety	**Lint Yield**[a]					**Lint (%)**	**Unif. Index (%)**	**Length (inches)**	**Strength (g/tex)**	**Mic. units**
	Bainbridge	**Midville**	**Plains**	**Tifton**	**4-Loc. Avg.**					
	---------- **lb/acre** ----------									
PSC355	1364 [3]	1706 [1]	1945[1]	1632 [4]	**1662 [1]**	42.7	84.6	1.12	31.3	5.3
OA-87	1454 [1]	1619 [3]	1761 [15]	1756 [1]	**1647 [2]**	43.5	84.3	1.13	29.8	5.0
SG215BR	1368 [2T]	1425 [15]	1791 [12]	1734 [2]	**1580 [3]**	41.4	84.3	1.07	28.0	5.1
PM1560BG	1347 [5]	1506 [9]	1798 [11]	1612 [5]	**1566 [4]**	42.7	84.2	1.11	31.1	5.2
SG747	1353 [4]	1466 [14]	1913 [4]	1513 [15]	1561 [5]	43.4	85.2	1.13	28.8	5.2
DP491	1198 [17]	1628 [2]	1802 [10]	1609 [6]	1559 [6]	43.1	85.3	1.22	32.5	4.7
FM958	1227 [12]	1481 [13]	1941 [2]	1568 [11]	1554 [7]	42.4	84.3	1.17	34.2	5.0
SG501BR	1252 [9]	1520 [6]	1846 [6]	1537 [14]	1539 [8]	40.5	84.5	1.10	31.2	5.1
ST4892BR	1261 [8]	1513 [7]	1808 [9T]	1570 [10]	1538 [9]	43.5	83.6	1.09	31.0	5.3
OA-85	1368 [2T]	1497 [10]	1808 [9T]	1470 [19T]	1536 [10]	44.7	83.3	1.12	31.0	4.8
FM966	1320 [6]	1384 [19]	1787 [13]	1579 [9]	1518 [11]	42.2	85.1	1.15	36.2	5.0
DP428B	1138 [23]	1534 [5]	1809 [8]	1583 [8]	1516 [12]	39.4	85.0	1.17	28.0	5.0
BXN47	1243 [10]	1543 [4]	1694 [20]	1560 [12T]	1510 [13]	42.9	83.9	1.11	30.4	5.0

SG125BR	1298 [7]	1411 [17]	1827 [7]	1494 [16]	1508 [14]	40.4	83.9	1.12	30.0	4.7
SG105	1210 [16]	1494 [12]	1609 [25]	1694 [3]	1502 [15]	40.8	85.5	1.16	31.5	4.9
DP451BR	1223 [14]	1360 [21]	1884 [5]	1474 [18T]	1485 [16]	39.8	84.8	1.15	29.1	4.9
8839_3_10_2	1089 [25]	1424 [16]	1935 [3]	1487 [17]	1484 [17]	41.7	85.3	1.17	30.8	5.2
ST4691B	1143 [22]	1510 [8]	1759 [16]	1474 [18T]	1472 [18]	42.4	84.1	1.14	29.3	4.8
SG521R	1151 [21]	1341 [22]	1662 [22]	1604 [7]	1440 [19]	41.8	84.2	1.09	28.9	4.8
8806_3_2_19	975 [28]	1495 [11]	1705 [19]	1560 [12T]	1434 [20]	40.8	84.7	1.13	32.8	5.0
8806_3_2_35	1172 [20]	1362 [20]	1706 [18]	1470 [19T]	1428 [21]	42.5	84.6	1.12	30.4	5.1
DP20B	1212 [15]	1314 [25]	1717 [17]	1457 [20]	1425 [22]	39.2	84.7	1.16	29.0	4.9
8806_3_2_2_1	1043 [27]	1396 [18]	1681 [21]	1545 [13]	1416 [23]	41.3	84.9	1.11	31.2	5.1
DP422BR	1190 [18]	1317 [24]	1608 [26]	1416 [22]	1383 [24]	40.7	83.7	1.12	28.5	4.7
ST4793R	1056 [26]	1334 [23]	1770 [14]	1329 [24]	1372 [25]	43.2	83.0	1.07	30.5	5.3
DP51	1239 [11]	1270 [27]	1538 [28]	1422 [21]	1367 [26]	39.0	84.5	1.14	28.1	5.0
DP425RR	1174 [19]	1298 [26]	1655 [23]	1288 [26]	1354 [27]	39.5	84.3	1.13	28.6	5.1
AP1500RR	1224 [13]	1260 [28]	1556 [27]	1295 [25]	1334 [28]	40.2	83.6	1.14	31.5	4.5
DP436RR	1136 [24]	1243 [29]	1611 [24]	1334 [23]	1331 [29]	38.3	84.0	1.14	28.0	5.0
Average	*1222*	*1436*	*1756*	*1520*	*1483*	*41.6*	*84.4*	*1.13*	*30.8*	*5.0*
LSD 0.10	*176*	*202*	*118*	*156*	*99*	*1.4*	*0.7*	*0.02*	*1.0*	*0.2*
CV %					*9.5*	*3.6*	*0.9*	*1.8*	*3.8*	*4.7*
Variety X Location Probability Value[b]					*0.01*	*0.09*	*0.04*	*0.06*	*NS*	*NS*

Publication RR 677 Published with Full Review on March 18, 2014

Published by University of Georgia Cooperative Extension. For more information or guidance, contact your local Extension office.