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DP 555 BG/RR, A NEW MID-FULL SEASON PICKER VARIETY WITH HIGH YIELD POTENTIAL

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Abstract

A new, mid-full season picker variety with high yield potential, DP 555 BG/RR, is being introduced by Delta and Pine Land Company in the 2003 season. Having a DeltaPEARL background and the Bollgard® and Roundup Ready® transgenic traits, DP 555 BG/RR was developed by Richard Leske at the Deltapine Australia research facility. DP 555 BG/RR has produced more lint per acre than other key mid-full Bollgard®/Roundup Ready® varieties commercially available in nearly all areas of the Cotton Belt. Fiber quality of DP 555 BG/RR was very similar to that of DP 458 B/RR, with similar staple length, leaf grade, and uniformity index, 1 g/tex weaker strength, but 0.14 micronaire units lower than DP 458 B/RR, when averaged across the cotton belt. DP 555 BG/RR has a very tall growth habit, but growth has been effectively regulated with mepiquat chloride in many different environments across the Cotton Belt. DP 555 BG/RR has produced more gross revenue per acre than other key competitors in the regions of the Cotton Belt where mid-full season varieties have traditionally been produced. Adequate supplies of DP 555 BG/RR are expected for the 2003 growing season.

Introduction

Delta and Pine Land Company (D&PL) is introducing a new mid-full season picker variety with extremely high yield potential. DP 555 BG/RR, a variety that has the Bollgard® and Roundup Ready® transgenic traits, has shown impressive yield potential in trials in many areas of the U.S. Cotton Belt, as well as in some international markets.

Materials and Methods

DP 555 BG/RR is the result of a backcross of DeltaPEARL and DP 655 B/RR, which served as the Bollgard® and Roundup Ready® donor parent. DeltaPEARL was developed by Richard Leske at the Deltapine Australia, research facility in Goondiwindi, Queensland, Australia, and is a cross between DP 5816 x Sicala 34 (Lege' et al., 2001). Hybridization took place in Deltapine Australia's glasshouse located at Narrabri, New South Wales, Australia; progeny row selection was conducted at Goondiwindi, Queensland, Australia. The final selection was tested in replicated yield and fiber trials from 1998-2000. Selection criteria included monitoring for the Bollgard® and Roundup Ready® traits, as well as disease tolerance, yield, and fiber quality. Delta and Pine Land Company began testing DP 555 BG/RR in the U.S. as 'DPLX99Q47BR' in 1999. All data reported within are as of 19 December, 2002, from D&PL research and technical service trials (ASTs), as well as state university official variety trials (OVTs), and Extension county agent trials (CATs).

Results and Discussion

General Characteristics and Plant Growth

DP 555 BG/RR is a mid-full maturing picker variety that has a very tall growth habit. Leaves of DP 555 BG/RR are smooth, bolls have fair storm tolerance, and seed are very small, having 5,700 to 6,800 seed per pound. Tolerance of DP 555 BG/RR to *Fusarium* and *Verticillium* wilts is rated as good. Bronze wilt has not been observed in this variety. DP 555 BG/RR, on average, begins fruiting on node 7.3, and produces 14.7 fruiting nodes (Table 1).

Data from 106 beltwide locations in 2001-2002 have shown that DP 555 BG/RR was 4.4 inches taller, produced 2 more total mainstem nodes and 1.3 more fruiting nodes, yet had similar height-to-node ratio (average internode length), as compared to DP 458 B/RR (Table 2). Additionally, DP 555 BG/RR began fruiting 0.6 nodes later, and set its uppermost, harvestable boll 2.1 nodes above that compared to DP 458 B/RR. Assuming a requirement of 50 DD60s per node, DP 555 BG/RR required 58 more DD60s than DP 458 B/RR to mature its boll load.

Due to the very tall growth habit and maturity of DP 555 BG/RR, it is recommended that monitoring for plant growth regulator applications begin at or near first square stage. Additionally, since much of the additional height has been shown to be contributed by additional fruiting nodes, rather than by longer internodes, plants of DP 555 BG/RR may not indicate the need for growth regulator applications until first bloom stage; however, limited data has indicated that a more pre-emptive ap-

proach should be followed with this variety, and growers should consider applying slightly higher rates (versus their traditional rates) of mepiquat chloride prior to first bloom. Node development and plant height accumulation of DP 555 BG/RR has been shown to be significantly higher after first bloom than for DP 458 B/RR (Pustejovsky and Albers, 2003).

Seedling vigor ratings recorded in 2001-2002 across 15 beltwide locations indicated that DP 555 BG/RR had the same seedling vigor as DP 458 B/RR, and slightly weaker vigor than ST4892BR (Table 3).

Yield and Fiber Quality Performance

DP 555 BG/RR produced 9.6% more yield and $52 more crop value per acre than its recurrent parent, DeltaPEARL (Table 4). Staple length, strength, micronaire, and uniformity index were lower for DP 555 BG/RR compared to DeltaPEARL, when averaged across the Cotton Belt. Gin turnout was higher for DP 555 BG/RR relative to DeltaPEARL.

Tables 5 through 13 show yield and fiber quality performance through direct, head-to-head comparisons between DP 555 BG/RR and DP 458 B/RR, FM989BR, and ST4892BR individually. Table 5 shows these comparisons across the Cotton Belt, and tables 6 through 13 show the same comparisons for the following sub-regions: California and Arizona (Table 6); Rolling Plains and Trans Pecos region (portions of OK, NM, and TX; Table 7); High Plains region (portions of NM and TX; Table 8); Central and South Texas (Table 9); Northern Mid-South region (northern AL, northern AR, northern MS, MO, and TN; Table 10); Southern Mid-South region (southern AR, LA, and southern MS; Table 11); Northern Southeast region (NC, northern SC, and VA; Table 12); and Southern Southeast region (southern AL, FL, GA, and southern SC; Table 13).

DP 555 BG/RR produced more yield and crop value than DP 458 B/RR when averaged across the Cotton Belt, and in every sub-region except for the High Plains region, where DP 458 B/RR only slightly outyielded DP 555 BG/RR. Turnout percentage was over three points higher for DP 555 BG/RR than for DP 458 B/RR when averaged across the Cotton Belt. The staple length was similar between the two varieties, but fiber strength averaged 1 g/tex less, micronaire was lower, leaf grade was lower, and uniformity index was lower for DP 555 BG/RR than for DP 458 B/RR, when averaged across the Cotton Belt.

Yield was over 18% higher and crop value was 16% higher for DP 555 BG/RR than for FM989BR, when averaged across the Cotton Belt. DP 555 BG/RR outyielded FM989BR in all sub-regions, and returned higher crop values in all sub-regions compared to FM989BR. DP 555 BG/RR had higher turnout, similar staple, lower strength, higher micronaire, lower leaf grade, and lower uniformity index as compared to FM989BR across the Cotton Belt

DP 555 BG/RR yielded 11.4% more and returned 16.3% more crop value per acre as compared to ST4892BR across the Cotton Belt. Yield and crop value was higher for DP 555 BG/RR than for ST4892BR in every sub-region. DP 555 BG/RR had higher turnout, longer staple, slightly weaker strength, lower micronaire, lower leaf grade, and lower uniformity index than ST4892BR, when averaged across the Cotton Belt.

Across 71 beltwide locations, DP 555 BG/RR has outyielded ST5599BR by 5.5%, and across 35 of those locations having all the fiber quality parameters reported necessary to calculate crop value, DP 555 BG/RR produced $54/acre more than did ST5599BR (Table 13). Averaged across the Cotton Belt, DP 555 BG/RR had higher turnout, similar staple length, 0.4 g/tex lower strength, 0.1 units lower micronaire, slightly lower leaf grade, and slightly lower uniformity index, as compared to ST5599BR. These yield and fiber quality trends were similar for OVT data as well as D&PL AST data (Table 14).

Summary

DP 555 BG/RR is a new, mid-full season picker variety with high yield potential available from Delta and Pine Land Company in the 2003 season. Yield performance has been superior to the other mid-full Bollgard®/Roundup Ready® varieties commercially available in nearly all areas of the Cotton Belt. Fiber quality of DP 555 BG/RR was very similar to that of DP 458 B/RR, with similar staple length, leaf grade, and uniformity index, 1 g/tex weaker strength, but 0.14 micronaire units lower than DP 458 B/RR, when averaged across the Cotton Belt. DP 555 BG/RR has a very tall growth habit, but growth has been effectively regulated with mepiquat chloride in many different environments across the Cotton Belt. Crop value, or gross revenue per acre, for DP 555 BG/RR has shown to be higher than for other key competitors in the regions of the Cotton Belt where mid-full season varieties have traditionally been produced. Seed supply for DP 555 BG/RR is anticipated to be adequate for the 2003 growing season.

Acknowledgements

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References

Lege', K.E., Richard Leske, and L. P. Burdett. 2001. Delta and Pine Land Company's new conventional mid-full cotton varieties: DeltaPEARL and DP 565. Proc. Beltwide Cotton Conf. 1:23-28.

Pustejovsky, Doug and David W. Albers. 2003. Pix effects on the growth and development of DP 555 BG/RR in Central Texas. Proc. Beltwide Cotton Conf. (in press).

Table 1. Characteristics of DP 555 BG/RR.

Characteristic	Description or Rating
Maturity	Mid-Full
Plant Height	Very Tall
Leaf Pubescence	Smooth
Range of Seed Size (#/lb.)	5,700 – 6,800
Storm Resistance	Fair
Fusarium Tolerance	Good
Verticillium Tolerance	Good
Bronze Wilt	Not Observed
Node of 1st Fruiting Branch†	7.3
Total No. Fruiting Branches†	14.7

† Node of 1st fruiting branch and total number of fruiting branch values are least square means of all locations across the Cotton Belt for DP 555 BG/RR in 2001-2002.

Table 2. Plant mapping parameters for DP 555 BG/RR and DP 458 B/RR averaged over 106 locations of Delta and Pine Land Company technical service trials across the U.S. Cotton Belt in 2001-2002.

Parameter	DP 555 BG/RR	DP 458 B/RR
Plant Height (in)	40.0	35.6
Total Mainstem Nodes	23.1	21.1
Total Fruiting Nodes	12.1	10.8
Height-to-Node Ratio (in/internode)	1.72	1.69
Node of 1st Fruiting Branch	6.9	6.3
Node of Uppermost Cracked Boll	12.5	11.6
Node of Uppermost Harvestable Boll	18.1	16.0
DD60s to 100% Open Boll†	280.9	222.8

† Calculated as the number of fruiting nodes between the uppermost cracked boll and the uppermost harvestable boll multiplied by 50 DD60s/node.

Table 3. Seedling vigor ratings for DP 555 BG/RR, DP 458 B/RR, and ST4892BR averaged over 15 locations of Delta and Pine Land Company technical service trials across the U.S. Cotton Belt in 2001-2002.

Variety	Seedling Vigor Rating (1=excellent; 5=poor)†
DP 555 BG/RR	3.03
DP 458 B/RR	3.03
ST4892BR	2.87

† Visual ratings made between 2nd and 4th true leaf stages.

Table 4. Head-to-head comparisons of DP 555 BG/RR and recurrent parent, DeltaPEARL, across the Cotton Belt in D&PL ASTs and state university OVTs, as of 19 December, 2002.

Variety Comparison	Crop Value†	Lbs. lint/ acre	% Turnout	Staple (1/32 in)	Strength (g/tex)	Micro-naire	Leaf Grade	% Uniformity
DP 555 BG/RR	534	1164	41.6	34.5	27.4	4.57	2.4	80.6
DeltaPEARL (2000-2002 data)	482	1062	39.1	36.0	28.8	4.65	2.4	81.5
No. of tests:	26	26	26	26	26	26	12	26

† Based on 2002 USDA CCC loan value of $0.52/lb +/- premiums and discounts, expressed as $/acre gross revenue. Data are means of crop value of individual plots. Base leaf grade, color grade, and uniformity values were used in the crop value calculation for data points in which those data were not reported by the cooperator.

Table 5. Head-to-head comparisons of DP 555 BG/RR and mid-full maturity BG/RR alternatives across the Cotton Belt in D&PL ASTs, research trials, state university OVTs, and CATs, as of 19 December, 2002.

Variety Comparison	Crop Value†	Lbs. lint/ acre	% Turnout	Staple (1/32 in)	Strength (g/tex)	Micro-naire	Leaf Grade	% Uniformity
DP 555 BG/RR	634	1194	39.9	35.0	28.0	4.46	1.8	79.3
DP 458 B/RR (2000-2002 data)	556	1050	36.2	35.1	29.0	4.60	2.0	80.8
No. of tests:	196	242	242	197	203	203	162	190
DP 555 BG/RR	593	1117	40.3	34.9	28.0	4.51	1.8	78.7
FM989BR (2001-2002 data)	511	943	36.1	35.0	29.1	4.31	2.1	80.6
No. of tests:	173	212	212	174	175	175	150	168
DP 555 BG/RR	635	1173	40.5	35.1	28.2	4.50	1.8	79.2
ST4892BR (2001-2002 data)	546	1053	38.1	34.8	28.7	4.82	2.5	82.4
No. of tests:	181	242	242	181	186	186	144	173

† Based on 2002 USDA CCC loan value of $0.52/lb +/- premiums and discounts, expressed as $/acre gross revenue. Data are means of crop value of individual plots. Base leaf grade, color grade, and uniformity values were used in the crop value calculation for data points in which those data were not reported by the cooperator.

Table 6. Head-to-head comparisons of DP 555 BG/RR and mid-full maturity BG/RR alternatives in California and Arizona D&PL ASTs, research trials, and state university OVTs, as of 19 December, 2002.

Variety Comparison	Crop Value†	Lbs. lint/ acre	% Turnout	Staple (1/32 in)	Strength (g/tex)	Micro-naire	Leaf Grade	% Uniformity
DP 555 BG/RR	846	1530	37.6	35.7	28.2	4.33	1.3	78.5
DP 458 B/RR (2000-2002 data)	819	1475	34.7	36.1	29.9	4.52	1.4	79.9
No. of tests:	17	23	23	17	23	23	17	11
DP 555 BG/RR	1233	2078	37.3	35.6	28.4	3.99	1.3	76.3
FM989BR (2002 data)	1010	1691	34.0	36.3	29.7	4.02	1.6	79.1
No. of tests:	3	4	4	3	4	4	4	2
DP 555 BG/RR	961	1687	38.8	35.3	28.4	4.66	1.3	82.1
ST4892BR (2001-2002 data)	846	1586	37.5	35.3	28.3	5.07	1.7	84.6
No. of tests:	10	15	15	10	15	15	10	2

† Based on 2002 USDA CCC loan value of $0.52/lb +/- premiums and discounts, expressed as $/acre gross revenue. Data are means of crop value of individual plots. Base leaf grade, color grade, and uniformity values were used in the crop value calculation for data points in which those data were not reported by the cooperator.

Table 7. Head-to-head comparisons of DP 555 BG/RR and mid-full maturity BG/RR alternatives across the Rolling Plains and TransPecos regions (portions of OK, NM, and TX) in D&PL ASTs and research trials, as of 19 December, 2002.

Variety Comparison	Crop Value†	Lbs. lint/ Acre	% Turnout	Staple (1/32 in)	Strength (g/tex)	Micro-naire	Leaf Grade	% Uniformity
DP 555 BG/RR	644	1201	37.7	34.6	27.4	4.19	1.5	78.4
DP 458 B/RR (2000-2002 data)	637	1182	33.9	35.6	29.4	4.43	1.5	80.1
No. of tests:	21	24	24	21	21	21	18	21
DP 555 BG/RR	681	1301	36.5	34.3	28.0	4.11	1.6	77.1
FM989BR (2002 data)	678	1259	31.8	35.2	29.5	4.20	1.8	78.9
No. of tests:	11	11	11	11	11	11	11	11
DP 555 BG/RR	715	1328	38.4	34.8	27.8	4.18	1.6	78.1
ST4892BR (2001-2002 data)	704	1317	35.3	35.0	28.3	4.62	2.7	81.7
No. of tests:	13	14	14	13	13	13	10	13

† Based on 2002 USDA CCC loan value of $0.52/lb +/- premiums and discounts, expressed as $/acre gross revenue. Data are means of crop value of individual plots. Base leaf grade, color grade, and uniformity values were used in the crop value calculation for data points in which those data were not reported by the cooperator.

Table 8. Head-to-head comparisons of DP 555 BG/RR and mid-full maturity BG/RR alternatives across the High Plains region (portions of NM and TX) in D&PL ASTs and research trials, as of 19 December, 2002.

Variety Comparison	Crop Value†	Lbs. lint/ Acre	% Turnout	Staple (1/32 in)	Strength (g/tex)	Micro-naire	Leaf Grade	% Uniformity
DP 555 BG/RR	759	1439	35.6	35.0	28.4	4.08	1.4	78.4
DP 458 B/RR (2001-2002 data)	792	1479	33.2	35.4	30.5	4.24	2.0	80.8
No. of tests:	12	13	13	12	12	12	11	11
DP 555 BG/RR	799	1494	35.7	35.0	28.5	3.98	1.5	77.6
FM989BR (2002 data)	761	1427	33.0	35.3	29.8	4.02	1.5	79.4
No. of tests:	8	9	9	8	8	8	8	7
DP 555 BG/RR	713	1363	36.3	34.6	28.5	4.24	1.4	78.3
ST4892BR (2001-2002 data)	702	1394	34.8	34.4	28.3	4.86	3.4	82.6
No. of tests:	8	9	9	8	8	8	8	8

† Based on 2002 USDA CCC loan value of $0.52/lb +/- premiums and discounts, expressed as $/acre gross revenue. Data are means of crop value of individual plots. Base leaf grade, color grade, and uniformity values were used in the crop value calculation for data points in which those data were not reported by the cooperator.

Table 9. Head-to-head comparisons of DP 555 BG/RR and mid-full maturity BG/RR alternatives across Central and South Texas in D&PL ASTs, state university OVTs, and CATs, as of 19 December, 2002.

Variety Comparison	Crop Value†	Lbs. lint/ acre	% Turnout	Staple (1/32 in)	Strength (g/tex)	Micro-naire	Leaf Grade	% Uniformity
DP 555 BG/RR	499	943	39.0	34.0	26.5	4.69	1.9	78.3
DP 458 B/RR	411	792	35.1	34.3	28.1	4.74	1.8	79.8
(2000-2002 data)								
No. of tests:	19	24	24	19	19	19	18	19
DP 555 BG/RR	536	1003	40.2	34.0	26.4	4.62	2.0	78.0
FM989BR	466	885	35.6	34.2	28.2	4.24	2.0	79.6
(2002 data)								
No. of tests:	20	35	35	20	20	20	19	20
DP 555 BG/RR	535	1001	40.2	34.2	26.6	4.62	2.2	78.2
ST4892BR	497	939	37.2	34.5	28.2	4.79	2.8	82.5
(2001-2002 data)								
No. of tests:	21	34	34	21	21	21	19	21

† Based on 2002 USDA CCC loan value of $0.52/lb +/- premiums and discounts, expressed as $/acre gross revenue. Data are means of crop value of individual plots. Base leaf grade, color grade, and uniformity values were used in the crop value calculation for data points in which those data were not reported by the cooperator.

Table 10. Head-to-head comparisons of DP 555 BG/RR and mid-full maturity BG/RR alternatives across the Northern Mid-South region (N AL, N AR, N MS, MO, and TN) in D&PL ASTs, state university OVTs, and CATs, as of 19 December, 2002.

Variety Comparison	Crop Value†	Lbs. lint/ acre	% Turnout	Staple (1/32 in)	Strength (g/tex)	Micro-naire	Leaf Grade	% Uniformity
DP 555 BG/RR	616	1170	40.0	35.1	27.5	4.32	1.5	78.1
DP 458 B/RR	525	989	36.0	35.3	28.9	4.46	2.1	81.0
(2002 data)								
No. of tests:	13	19	19	13	13	13	13	13
DP 555 BG/RR	616	1166	40.3	35.6	28.5	4.36	1.6	79.0
FM989BR	514	968	36.0	35.7	29.9	4.17	1.9	81.6
(2001-2002 data)								
No. of tests:	24	31	31	24	24	24	20	24
DP 555 BG/RR	584	1091	39.6	35.4	28.4	4.30	1.6	79.1
ST4892BR	503	992	37.5	35.3	29.1	4.46	2.3	83.2
(2001-2002 data)								
No. of tests:	28	39	39	28	28	28	28	28

† Based on 2002 USDA CCC loan value of $0.52/lb +/- premiums and discounts, expressed as $/acre gross revenue. Data are means of crop value of individual plots. Base leaf grade, color grade, and uniformity values were used in the crop value calculation for data points in which those data were not reported by the cooperator.

Table 11. Head-to-head comparisons of DP 555 BG/RR and mid-full maturity BG/RR alternatives across the Southern Mid-South region (S AR, LA, and S MS) in D&PL ASTs, research trials, and state university OVTs, as of 19 December, 2002.

Variety Comparison	Crop Value†	Lbs. lint/ acre	% Turnout	Staple (1/32 in)	Strength (g/tex)	Micro-naire	Leaf Grade	% Uniformity
DP 555 BG/RR	568	1078	39.9	35.2	28.2	4.49	1.9	79.3
DP 458 B/RR	466	899	36.1	35.0	28.9	4.65	2.2	80.8
(2000-2002 data)								
No. of tests:	43	43	43	43	43	43	31	43
DP 555 BG/RR	491	948	38.6	35.1	28.2	4.48	1.9	77.5
FM989BR	442	845	34.0	35.1	29.2	4.45	2.2	80.7
(2001-2002 data)								
No. of tests:	28	28	28	28	28	28	26	28
DP 555 BG/RR	559	1063	39.4	35.2	28.3	4.51	2.0	78.0
ST4892BR	479	952	36.4	35.0	28.9	4.87	2.6	82.1
(2001-2002 data)								
No. of tests:	30	30	30	30	30	30	24	30

† Based on 2002 USDA CCC loan value of $0.52/lb +/- premiums and discounts, expressed as $/acre gross revenue. Data are means of crop value of individual plots. Base leaf grade, color grade, and uniformity values were used in the crop value calculation for data points in which those data were not reported by the cooperator.

Table 12. Head-to-head comparisons of DP 555 BG/RR and mid-full maturity BG/RR alternatives across the Northern Southeast region (NC, N SC, and VA) in D&PL ASTs, research trials, state university OVTs, and CATs, as of 19 December, 2002.

Variety Comparison	Crop Value†	Lbs. lint/ acre	% Turnout	Staple (1/32 in)	Strength (g/tex)	Micro-naire	Leaf Grade	% Uniformity
DP 555 BG/RR	473	907	41.8	34.4	27.7	4.73	2.4	80.0
DP 458 B/RR	409	753	37.8	34.9	28.6	4.64	2.4	81.1
(2000-2002 data)								
No. of tests:	23	31	31	23	23	23	21	23
DP 555 BG/RR	415	834	41.8	34.5	27.9	4.74	2.3	79.6
FM989BR	366	681	37.6	34.6	28.6	4.28	2.6	80.5
(2001-2002 data)								
No. of tests:	27	34	34	27	27	27	22	24
DP 555 BG/RR	481	919	42.2	34.7	27.8	4.68	2.1	79.9
ST4892BR	406	786	39.7	34.2	27.9	4.72	2.4	81.3
(2001-2002 data)								
No. of tests:	27	36	36	27	27	27	23	27

† Based on 2002 USDA CCC loan value of $0.52/lb +/- premiums and discounts, expressed as $/acre gross revenue. Data are means of crop value of individual plots. Base leaf grade, color grade, and uniformity values were used in the crop value calculation for data points in which those data were not reported by the cooperator.

Table 13. Head-to-head comparisons of DP 555 BG/RR and mid-full maturity BG/RR alternatives across the Southern Southeast region (S AL, FL, GA, S SC) in D&PL ASTs, research trials, state university OVTs, and CATs, as of 19 December, 2002.

Variety Comparison	Crop Value†	Lbs. lint/ acre	% Turnout	Staple (1/32 in)	Strength (g/tex)	Micro-naire	Leaf Grade	% Uniformity
DP 555 BG/RR	722	1321	41.6	35.3	28.6	4.53	1.8	80.4
DP 458 B/RR	589	1103	38.0	35.0	28.7	4.74	2.1	81.5
(2000-2002 data)								
No. of tests:	49	65	65	49	49	49	33	49
DP 555 BG/RR	677	1243	42.1	35.4	28.4	4.66	1.7	80.0
FM989BR	540	978	38.0	35.0	28.9	4.46	2.3	81.5
(2001-2002 data)								
No. of tests:	53	60	60	53	53	53	40	52
DP 555 BG/RR	750	1326	42.3	35.6	29.2	4.57	1.6	80.8
ST4892BR	585	1116	40.2	34.6	29.1	5.04	2.7	83.0
(2001-2002 data)								
No. of tests:	44	65	65	44	44	44	22	44

† Based on 2002 USDA CCC loan value of $0.52/lb +/- premiums and discounts, expressed as $/acre gross revenue. Data are means of crop value of individual plots. Base leaf grade, color grade, and uniformity values were used in the crop value calculation for data points in which those data were not reported by the cooperator.

Table 14. Head-to-head comparisons of DP 555 BG/RR and ST5599BR across the Cotton Belt in state university OVTs (AL, FL, GA, LA, MO, MS, NC, SC, TN, TX, and VA) and in D&PL ASTs (LA and TN). All data available as of 19 December, 2002.

Variety Comparison	Crop Value†	Lbs. lint/ acre	% Turnout	Staple (1/32 in)	Strength (g/tex)	Micro-naire	Leaf Grade	% Uniformity
OVTs & ASTs								
DP 555 BG/RR	609	1122	41.7	35.8	29.7	4.58	1.9	82.0
ST5599BR	555	1064	39.9	35.7	30.1	4.68	2.1	82.3
(2001-2002 data)								
No. of tests:	35	71	62	35	35	35	8	35
OVTs only								
DP 555 BG/RR	612	1116	41.8	35.9	29.6	4.59	1.9	82.4
ST5599BR	553	1059	40.1	35.7	30.1	4.69	2.0	82.7
(2001-2002 data)								
No. of tests:	32	67	58	32	32	32	5	32
ASTs only								
DP 555 BG/RR	584	1186	40.0	35.0	29.1	4.50	2.0	77.2
ST5599BR	570	1175	37.8	35.6	29.4	4.57	2.0	77.7
(2002 data)								
No. of tests:	3	4	3	3	3	3	3	3

† Based on 2002 USDA CCC loan value of $0.52/lb +/- premiums and discounts, expressed as $/acre gross revenue. Data are means of crop value of individual plots. Base leaf grade, color grade, and uniformity values were used in the crop value calculation for data points in which those data were not reported by the cooperator.