No. 200500052

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

D&PL Technology Holding Company, LLC

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE [illegible]IGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR [illegible]ORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE [illegible] PURPOSE , OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE [illegible] OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PR[illegible]BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'DP 455 BG/RR'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this fifteenth day of June, in the year two thousand and five.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

[illegible]tary of Agriculture

REPRODUCE LOCALLY. Include form number and date on all reproductions.

FORM APPROVED - OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER: D&PL Technology Holding Company, LLC.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME: 02X39BR

3. VARIETY NAME: DP 455 BG/RR

4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country):
PO Box 157
100 Main Street
Scott, Mississippi 38772
USA

5. TELEPHONE (include area code): (662) 742-4141

6. FAX (include area code): (662) 742-3182

PVPO NUMBER: 200500052

FILING DATE: DECEMBER 30, 200

7. IF THE OWNER IS NOT A "PERSON" GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.): Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION: Delaware

9. DATE OF INCORPORATION: February 29, 1996

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)
Delta and Pine Land Company
Kelly Casavechia
P.O. Box 157
Scott, MS 38772

FILING AND EXAMINATION FEE: $ 3,652.00
DATE 12/30/04

CERTIFICATION FEE: $ 432.00
DATE 5/13/05

11. TELEPHONE (include area code): (662) 742-4141

12. FAX (include area code): (662) 742-3182

13. E_MAIL: kelly.h.casavechia@deltaandpine.com

14. CROP KIND (Common Name): Cotton

15. GENUS AND SPECIES NAME OF CROP: Gossypium hirsutum

16. FAMILY NAME (Botanical): Malvacae

17. IS THE VARIETY A FIRST GENERATION HYBRID? [ ] YES [X] NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse).
- a. [X] Exhibit A. Origin and Breeding History of the Variety
- b. [X] Exhibit B. Statement of Distinctness
- c. [X] Exhibit C. Objective Description of the Variety
- d. [ ] Exhibit D. Additional Description of the Variety (Optional)
- e. [X] Exhibit E. Statement of the Basis of the Owner's Ownership
- f. [X] Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)
- g. [X] Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VATIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act)
[ ] YES (If "yes", answer items 20 and 21 below) [X] NO (If "no", go to item 22)

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
[ ] YES [ ] NO

21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
[ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OTHER COUNTRIES?
[ ] YES [X] NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR US FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?
[X] YES [ ] NO
IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER	SIGNATURE OF OWNER
Don L Keim	
NAME (Please print or type): Don L. Keim	NAME (Please print or type): William V. Hugie
CAPACITY OR TITLE: Cotton Breeder	CAPACITY OR TITLE: Vice President/Director of Research
DATE: 8 Dec 2004	DATE: 28 DEC 04

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $2,705 ($320 filing fee and $2,385 examination fee), payable to "Treasurer of the United States" (*See Section 97.6 of the Regulations and Rules of Practice* .) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check paybable to "Treasurer of the United States" in the amount of $320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM

18a. Give:
(1) the genealogy, including public and commercial varieites, lines, or clones used, and the breeding method
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of realted varieties:

(1) Identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc*.

18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

19. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (*See Regulations and Rules of Practice, Secion 97.103*).

22. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

23. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

21. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

22. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

23. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of th variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*
Bollgard® with Roundup Ready® cotton
THESE SEEDS ARE COVERED UNDER U. S. PATENTS 5,633,435; 5,500,365; 5,424,200; 5,359,142; 5,352,605; 5,530,196; 5,322,938; 5,196,525; 5,188,642; 5,164,316; 4,940,835; 5,717,084; 5,728,925; and 5,804,425.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed/ls-sd.htm

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to repond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U. S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

S&T -470 (04-01) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (02-99) which is obsolete.

EXHIBIT A

DELTA AND PINE LAND COMPANY'S APPLICATION FOR
DP 455 BG/RR

ORIGIN AND BREEDING HISTORY

1. GENEALOGY

DP 455 BG/RR is a selection derived from the cross, DP5305/DP90BtRR. The DP90Bt/RR parent has the Monsanto developed gene from Bacillus thuringiensis (Bt, 531 construct) and the EPSPS gene (1445 construct) that gives tolerance to certain lepidopteron insects and the herbicide glyphosate, respectively.

Development of DP 455 BG/RR occurred in the Midsouth Cotton Research program of Delta and Pine Land Company. A single F4 progeny row was bulked in 1999 to form the line designated 961055-7035-802. After initial evaluation, purification and increase, the line was given the experimental designation 02X39BR in 2001. The variety name DP 455 BG/RR was designated in 2004.

2. SELECTION AND MULTIPLICATION

Year	Location	Generation	Selection
1996	Scott, Ms	F0	Cross made
1996/97	Winter nursery – Puerto Rico	F1	Selfed bulk
1997	Scott, Ms	F2	Single plants selected
1998	Scott, Ms	F3	Single plants selected
1999	Scott, Ms	F4	Progeny row bulked
2000	Breeder's Increase - Scott, Ms	F5	Plants screened for BG/RR and selfed
2001	Purification Increase – Scott, Ms	F6	Four selected lines bulked
2002	Transgenic Increase – Scott, Ms	F7	Bulked
2002/2003	Foundation Increase – Costa Rica	F8	Bulked
2003	Foundation Increase	F9	Bulked
2004	Production Increase	F10	Bulked

Selection critieria used in the F2 and F3 generations included glyphosate resistance, agronomic traits (plant type, plant maturity, plant height and storm resistance), lint percent and fiber quality traits (micronaire, length and strength). Selection criteria in the F4 through F6 generations included lint yield, in addition to the traits mentioned above. Transgene (BG and RR) presence and homozygosity were used as selection in the F5 and F6 generations. In the F7 and later generations, adaptation to a range of environments was an added selection criteria.

STATEMENT ON UNIFORMITY AND STABILITY

DP 455 BG/RR has been observed every generation since 2001 and has shown to be uniform and stable. Less than 2% of the plants do not contain both the gene insertions 1445 and 531.

EXHIBIT B STATEMENT OF DISTINCTNESS

DP 455 BG/RR is a picker-type upland variety. The picker-type varieties as a group are distinguished from stripper varieties primarily by a more open or loose boll type. The picker-type varieties are distinguished from Acala-type varieties primarily by earlier maturity, shorter fiber length and lower fiber strength.

DP 455 BG/RR is different from many other picker-type varieties in that its plants carry the gene insertion 1445 of a construct developed by the MONSANTO COMPANY which causes these plants to be tolerant to the herbicide ROUNDUP (glyphosate) and the gene insertion 531 (Bollgard) of a construct developed by the MONSANTO COMPANY which causes these plants to be tolerant to certain to lepidopteran insects.

DP 449 BG/RR was used as the most similar variety because it has many agronomic and adaptive characteristics in common with DP 455 BG/RR. In comparing DP 455 BG/RR to DP 449 BG/RR, the most distinguishing characteristics lint turnout, fiber micronaire, fiber length, fiber uniformity, fiber strength, fiber leaf trash and plant height.

Novelty of DP 455 BG/RR is claimed on the following characteristics, for which there are significant differences from the comparison variety, at the 5% level of probability or less.

Trait	DP 455 BG/RR	DP 449 BG/RR	Probability	Reference Table
Lint turnout	39.90	37.46	<0.0001	1
Fiber micronaire	4.12	4.36	<0.0001	1
Fiber length	1.139	1.123	<0.0001	1
Fiber uniformity	82.35	82.80	<0.0001	1
Fiber strength	31.41	31.73	0.0351	1
Fiber leaf trash	2.23	1.68	<0.0001	1
Plant Height (cm)	98.2	87.3	0.0293	1

Supporting Tables:

Table	Test	Years	Locations
1	Head to Head Comparisons	2003/04	190 tests - Beltwide
2	PVP Trial	2004	Scott. Ms
3	PVP Trial – Plant Map	2004	Scott, Ms
4	Relative Maturity	2002-2004	Beltwide

Table 1. Head to head comparisons of DP 455 BG/RR with DP 449 BG/RR

					Lint Turnout		Micronaire		Length		Uniformity Ratio		Strength		Elongation		Leaf Trash		Plant Height		Seed Index		Lint Index	
YEAR	REG-ION	EXPT	COUNTY	STATE	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR
2002	NOSE	23HV0116	DARLINGTON	SC	40.8	37.0	4.3	4.6	1.15	1.11	86.8	90.0	29.7	30.3	12.0	13.3			95.3	90.2				
2002	SOSE	23BB0216	DECATUR	GA	43.2	39.7	4.4	4.7	1.15	1.12	81.0	83.3	30.1	30.5	12.2	11.9			107.3	95.9				
2002	SOSE	23TF0215	TIFT	GA	43.3	40.2	4.2	4.7	1.16	1.12	84.1	87.1	32.2	33.6	10.5	11.6			96.5	98.4				
2002	SODE	23NE0420	TENSAS	LA	42.2	39.0	4.5	4.8	1.17	1.12	85.6	82.5	30.5	28.5	11.8	12.2					8.7	9.0	6.4	5.8
2002	SODE	23PB0421	SHARKEY	MS	43.1	38.7	4.2	4.1	1.17	1.18	83.5	86.0	30.4	31.8	10.7	11.2								
2002	SODE	23PU0422	SHARKEY	MS	42.8	37.2	3.8	4.4	1.11	1.10	81.4	83.8	28.1	30.5	10.4	10.8								
2002	SODE	23SM0427	BOLIVAR	MS	40.4	37.7	3.9	4.2	1.21	1.18	85.3	87.5	33.1	30.9	11.6	11.3			122.3	126.9				
2003	NOSE	34HV0110	DARLINGTON	SC	43.5	39.2	4.2	4.3	1.17	1.15	83.8	84.4	33.2	33.5	11.7	11.8			108.9	97.8				
2003	SOSE	34TF0204	TIFT	GA	42.0	40.2	3.8	4.0	1.10	1.11	80.9	82.2	27.0	28.2	11.6	12.1								
2003	SOSE	34BB0206	DECATUR	GA	42.3	39.6	4.0	4.2	1.12	1.09	82.3	82.1	30.7	30.0	12.0	12.1								
2003	SOSE	34UN0208	DOOLY	GA	41.7	38.6	3.8	3.9	1.13	1.10	82.1	82.1	30.8	30.1	11.8	12.7								
2003	SOSE	34SB0210	BULLOCH	GA	41.9	37.8	3.7	3.8	1.13	1.12	82.7	82.9	34.7	34.7	12.9	13.4								
2003	SODE	34SM0406	BOLIVAR	MS	41.0	38.6	3.7	3.9	1.15	1.14	82.6	82.9	30.7	32.4	11.6	11.3			106.7	115.6	8.9	9.5	6.2	5.9
2003	SODE	34WI0407	FRANKLIN	LA	44.2	41.0	4.4	4.9	1.15	1.15	82.8	83.5	30.1	32.3	11.5	11.0			87.6	78.7	9.2	10.1	7.3	7.0
2003	SODE	34NE0408	TENSAS	LA	42.8	39.9	4.2	4.4	1.20	1.15	83.8	82.8	29.7	30.3	11.1	11.3			101.4	88.1				
2003	SODE	34PB0409	SHARKEY	MS	41.5	38.2	4.2	4.4	1.18	1.16	83.6	83.9	30.9	33.7	12.3	11.3								
2003	SODE	34PU0410	SHARKEY	MS	40.4	36.9	4.1	4.1	1.16	1.12	83.7	82.8	33.1	33.7	12.0	11.4								
2003	ROPL	34HD0567	HASKELL	TX	45.9	40.9	5.4	5.9	1.06	1.05	80.9	81.9	34.3	33.8	13.1	13.2			50.8	44.9				
2003	ARIZ	34CO0706	PINAL	AZ	42.4	38.1	5.0	5.2	1.15	1.16	82.2	83.7	30.0	32.4	11.7	11.5			139.7	92.2				
2003	ARIZ	34CO0708	PINAL	AZ	41.9	37.8	5.0	5.3	1.19	1.16	83.0	83.8	32.3	31.7	11.4	11.0								
2003	ARIZ	34MA0729	PINAL	AZ	38.2	37.4	4.7	4.9	1.19	1.26	83.3	84.9	29.1	31.4	13.2	12.8			106.2	69.9				
2003	ARIZ	34MA0731	PINAL	AZ	37.4	37.7	4.9	5.0	1.22	1.20	84.6	84.6	31.9	30.0	11.3	13.1			69.9	69.9				
2003	SOSE	34WU0214	ATKINSON	GA	42.7	39.8	3.9	3.8	1.14	1.15	82.2	83.7	31.6	33.3	11.2	12.0								
2003	SOSE	34WC0212	ATKINSON	GA	42.6	39.7	3.8	3.9	1.10	1.11	81.6	82.9	30.4	31.3	11.5	11.6								
2003	ROPL	34AO0568	JACKSON	OK	43.3	37.8	4.4	4.4	1.19	1.14	83.9	83.6	27.7	29.5	12.2	12.0			83.8	66.9				
2003	ROPL	34MU0569	KNOX	TX	44.5	40.0	4.5	4.9	1.15	1.11	83.9	82.3	30.3	26.4										
2003	NODE	2046000169	LIMESTONE	AL	42.2	36.3	3.8	3.7	1.13	1.11	82.1	81.7	32.0	34.6			1.8	1.5						
2003	EMEX	2102000034	ASCENCION	MX	38.9	39.3	4.5	4.3	1.18	1.20	84.6	85.5	32.1	32.3			3.0	2.0						
2004	SOTX	1042024372	NUECES	TX	43.0	40.8	4.9	5.4	1.07	1.07	82.0	83.0	29.5	31.5										
2004	SOTX	1042024373	NUECES	TX	43.5	40.8	4.7	5.1	1.07	1.07	82.2	83.3	32.0	31.5										
2004	SOTX	1042024397	WHARTON	TX	40.3	37.6	4.1	4.2	1.10	1.09	83.0	83.0	30.1	31.3										
2004	SOTX	1042024398	SAN PATRICIO	TX	41.8	38.6	4.5	4.7	1.14	1.12	84.0	83.0	30.8	31.2										
2004	SOTX	1042024399	SAN PATRICIO	TX	39.8	36.7	3.9	4.1	1.14	1.11	82.0	82.0	31.1	30.7										
2004	SOTX	1042024559	UVALDE	TX	39.8	37.2	3.8	4.2	1.17	1.16	81.0	85.0	29.1	30.4										
2004	NODE	1043024200	LEE	AR	38.5	38.2																		
2004	SODE	1043024202	LINCOLN	AR	38.3	37.4	3.9	4.5	1.15	1.14	83.5	82.2	29.9	31.9			1.0	1.0						
2004	NODE	1046024490	LIMESTONE	AL	44.0	40.0																		
2004	NODE	1046024494	LIMESTONE	AL	43.0	41.0																		
2004	CTBL	1047024560	BURLESON	TX	42.1	37.6	4.1	4.2	1.16	1.13	84.0	84.0	33.4	32.2										
2004	CTBL	1047024561	WILLIAMSON	TX	43.5	39.6	3.8	3.7	1.12	1.10	82.0	83.0	30.3	28.5										
2004	NODE	1048024580	COAHOMA	MS	39.7	38.1	3.9	4.1	1.18	1.14	85.3	84.7	32.8	32.6										
2004	SOSE	1049024420	DECATUR	GA	41.9	40.6	4.1	5.0	1.23	1.17	84.2	84.8	33.6	34.0										
2004	SOSE	1049024421	DECATUR	GA	43.9	41.6	4.5	4.9	1.19	1.17	85.1	86.0	32.1	35.4										
2004	SOSE	1049024479	SUMTER	GA	43.2	41.2	4.6	4.5	1.10	1.17	82.7	84.6	32.0	31.6										

Table 1. Head to head comparisons of DP 455 BG/RR with DP 449 BG/RR

					Lint Turnout		Micronaire		Length		Uniformity Ratio		Strength		Elongation		Leaf Trash		Plant Height		Seed Index		Lint Index	
YEAR	REG-ION	EXPT	COUNTY	STATE	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR
2004	SOSE	1049024480	SUMTER	GA	45.2	41.3	4.5	5.2	1.10	1.07	83.0	83.8	32.0	33.6										
2004	SOSE	1049024481	SUMTER	GA	45.3	40.3	4.2	4.4	1.16	1.15	84.5	85.1	34.2	32.2										
2004	SOSE	1049024482	SUMTER	GA	43.2	39.1	4.4	4.5	1.15	1.11	84.7	84.1	33.1	33.5										
2004	NODE	1050024335	TALLAHATCHI	MS	39.1	37.4	3.8	4.0	1.14	1.13	82.0	82.5	31.2	31.7			4.0	1.0						
2004	SODE	1050024347	SUNFLOWER	MS	36.4	34.8	4.1	4.4	1.18	1.16	82.4	82.3	35.3	36.2			4.0	4.0						
2004	SODE	1050024379	BOLIVAR	MS	37.0	37.2	3.7	4.3	1.20	1.15	81.7	82.1	34.1	34.7			1.0	4.0						
2004	SODE	1050024581	SHARKEY	MS	42.6	40.7	4.3	4.6	1.15	1.13	84.7	84.9	31.3	32.3										
2004	SODE	1050024582	WASHINGTON	MS	40.1	38.4	4.0	4.7	1.17	1.15	85.0	84.3	32.7	32.0										
2004	SODE	1050024583	WASHINGTON	MS	42.8	39.2	4.7	5.0	1.16	1.16	83.6	84.7	31.5	32.8										
2004	SODE	1050024584	SHARKEY	MS	40.9	39.2	4.3	4.7	1.16	1.14	84.9	84.7	30.9	31.4										
2004	SODE	1050024585	WASHINGTON	MS	39.4	37.2	3.9	4.6	1.20	1.15	84.7	84.6	34.3	33.5										
2004	SODE	1050024586	WASHINGTON	MS	42.0	40.6	4.5	5.0	1.19	1.14	85.3	84.5	32.8	32.9										
2004	SODE	1050024587	OKTIBBEHA	MS	41.7	39.9																		
2004	SODE	1050024588	NOXUBEE	MS	41.0	39.9																		
2004	SODE	1050024589	ATTALA	MS	43.0	40.1																		
2004	SODE	1050024590	HINDS	MS	43.9	40.8																		
2004	SODE	1050024591	OKTIBBEHA	MS	42.6	40.2																		
2004	SODE	1050024592	ATTALA	MS	42.2	40.6																		
2004	SODE	1050024593	HINDS	MS	42.9	38.3																		
2004	NOSE	1052024224	SOUTHAMPTON	VA	41.5	38.3	3.9	4.4	1.13	1.06	81.8	82.3	30.8	30.8			3.0	2.0						
2004	NOSE	1052024226	BERTIE	NC	40.3	39.8	4.3	4.7	1.09	1.08	81.3	81.9	26.8	27.2			3.3	1.7						
2004	NOSE	1052024229	GATES	NC	40.5	39.3	4.1	4.7	1.08	1.11	82.8	81.4	33.1	29.9			2.0	1.0						
2004	NOSE	1052024230	PERQUIMANS	NC	39.5	41.0																		
2004	NOSE	1052024232	WILSON	NC	39.8	37.5	4.4	4.4	1.12	1.12	81.3	83.6	27.4	30.4			3.0	2.0						
2004	NOSE	1052024233	JONES	NC	39.3	39.9	4.1	4.3	1.16	1.09	82.7	83.5	30.1	33.3			3.0	1.0						
2004	NOSE	1052024234	HYDE	NC	37.1	36.1																		
2004	SOSE	1053024241	COOK	GA	40.5	39.2																		
2004	SOSE	1053024410	TIFT	GA	42.4	41.3	4.2	4.7	1.15	1.09	83.5	83.1	31.5	32.4										
2004	SOSE	1053024418	TIFT	GA	42.5	38.8	4.2	4.5	1.07	1.09	82.4	83.2	33.2	31.9										
2004	SOSE	1053024419	TIFT	GA	42.8	38.4	3.9	4.6	1.12	1.07	83.2	84.0	34.8	32.8										
2004	SODE	1054024436	RAPIDES	LA	37.5	37.5																		
2004	SODE	1054024437	RAPIDES	LA	39.3	36.8																		
2004	ARIZ	1055024298	YUMA	AZ	43.0	38.9	4.1	4.6	1.15	1.15	81.0	83.0	32.2	33.3										
2004	NODE	1056024395	PEMISCOT	MO	43.0	39.0	4.2	4.2	1.13	1.13	82.8	84.1	33.0	32.6			1.3	1.5						
2004	NODE	1056024396	NEW MADRID	MO	42.0	39.0	4.0	4.1	1.17	1.14	83.4	83.4	30.8	31.1			1.3	1.5						
2004	NODE	1056024433	PEMISCOT	MO	40.0	38.0																		
2004	NOSE	1060024278	DARLINGTON	SC	39.1	37.2																		
2004	NOSE	1060024279	DARLINGTON	SC	40.8	37.6																		
2004	SOSE	1060024464	BURKE	GA	44.0	41.3	4.6	4.4	1.18	1.16	85.2	84.8	33.8	31.2										
2004	SOSE	1060024470	BURKE	GA	45.0	42.4	4.2	4.4	1.19	1.15	86.0	85.1	33.4	34.2										
2004	SOSE	1060024471	BURKE	GA	42.7	39.8	5.2	5.4	1.16	1.13	84.4	85.4	35.1	37.1										
2004	SOSE	1060024472	BURKE	GA	42.8	39.5	5.1	5.4	1.16	1.17	85.0	85.1	35.7	39.8										
2004	SOSE	1060024473	BARNWELL	SC	44.1	39.6																		
2004	SOSE	1060024476	BARNWELL	SC	43.9	39.7																		
2004	SOSE	1060024477	BARNWELL	SC	43.6	37.8																		

Table 1. Head to head comparisons of DP 455 BG/RR with DP 449 BG/RR

					Lint Turnout		Micronaire		Length		Uniformity Ratio		Strength		Elongation		Leaf Trash		Plant Height		Seed Index		Lint Index	
YEAR	REG-ION	EXPT	COUNTY	STATE	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR
2004	SOSE	1060024478	BARNWELL	SC	45.2	40.6																		
2004	SOSE	1060024484	CLARKE	GA	44.7	41.0	4.9	5.4	1.12	1.11	84.4	84.5	33.6	32.0										
2004	SOSE	1060024485	CLARKE	GA	45.3	41.7	5.0	5.4	1.14	1.09	84.0	82.7	32.8	34.6										
2004	NOSE	1060024569	FLORENCE	SC	45.6	42.7																		
2004	NOSE	1060024570	FLORENCE	SC	47.1	45.5																		
2004	NOSE	1060024571	FLORENCE	SC	47.6	44.0																		
2004	NOSE	1060024572	LEE	SC	45.0	41.2																		
2004	NOSE	1060024573	LEE	SC	44.9	42.5																		
2004	NOSE	1060024574	DILLON	SC	45.6	42.6																		
2004	NOSE	1060024575	DILLON	SC	45.2	42.1																		
2004	ROPL	2041000202	COLLINGSWOR	TX	35.1	32.6	3.7	3.9	1.17	1.13	81.8	80.9	31.4	30.1			1.7	1.7						
2004	SOHP	2041000207	LUBBOCK	TX	34.1	33.4	3.2	3.2	1.11	1.08	81.9	82.4	33.4	32.7			4.0	1.0						
2004	ROPL	2041000211	JACKSON	OK	37.0	33.8	4.3	4.3	1.15	1.14	81.0	81.0	31.6	31.0			3.0	3.0						
2004	ROPL	2041000220	KNOX	TX	38.2	35.1	3.7	3.6	1.12	1.16	80.5	81.4	30.5	31.4			1.0	2.0						
2004	ROPL	2041000225	KNOX	TX	39.2	34.4	3.5	3.3	1.21	1.18	81.6	82.3	31.8	29.1			2.0	2.0						
2004	CTBL	2042000198	HAYS	TX	31.6	29.1	3.8	4.0	1.06	1.09	80.1	81.4	29.4	30.6			1.0	1.0						
2004	SOTX	2042000205	VICTORIA	TX	34.2	31.2	4.6	4.8	1.07	1.10	80.7	82.0	30.9	33.8			1.0	1.0						
2004	SOTX	2042000211	SAN PATRICIO	TX	30.9	27.7	4.2	4.6	1.09	1.12	81.2	81.0	30.5	28.2			1.0	2.0						
2004	SOTX	2042000212	FORT BEND	TX	36.7	35.8	4.1	4.7	1.14	1.07	82.0	82.6	30.8	28.2			4.0	3.0						
2004	SOTX	2042000237	HIDALGO	TX	43.4	40.4	4.2	4.4	1.16	1.15	83.9	84.6	30.9	31.3										
2004	SODE	2043000122	DESHA	AR	37.3	36.0	4.1	4.5	1.19	1.13	83.2	81.2	32.7	32.6			3.0	1.0						
2004	SODE	2043000125	MADISON	LA	37.1	35.2	4.0	4.4	1.22	1.21	83.1	83.4	33.6	38.1			1.0	2.0						
2004	ROPL	2044000157	RUNNELS	TX	28.4	26.0	3.0	2.9	1.11	1.11	80.4	81.0	27.5	27.7			2.0	3.0						
2004	TPEC	2044000171	GLASSCOCK	TX	31.9	30.8	3.8	3.9	1.16	1.19	82.4	83.0	29.7	31.0			1.0	1.0						
2004	TPEC	2044000174	GLASSCOCK	TX	31.5	27.3	3.7	3.5	1.14	1.15	80.3	81.7	28.3	29.7			1.0	2.0						
2004	NODE	2046000174	BARTOW	GA	41.9	39.0	4.0	4.2	1.14	1.11	84.3	82.5	36.8	33.1			2.0	1.0						
2004	NODE	2046000175	LAUDERDALE	AL	37.9	35.8	3.8	4.0	1.13	1.11	81.8	81.7	29.9	30.5			3.3	2.3						
2004	NODE	2046000176	BLOUNT	AL	42.1	37.4	3.7	4.1	1.14	1.13	82.8	83.1	30.8	30.5			4.0	2.0						
2004	NODE	2046000181	LAUDERDALE	AL	40.2	37.2	3.7	4.1	1.11	1.09	83.1	81.9	29.5	29.1			2.0	2.0						
2004	NODE	2046000183	MADISON	AL	38.5	37.1	3.5	3.8	1.10	1.13	80.2	82.8	29.9	30.9			1.0	1.0						
2004	CTBL	2047000160	MC LENNAN	TX	34.3	34.3	3.8	4.1	1.19	1.16	81.7	82.0	30.8	30.4			1.0	2.0						
2004	CTBL	2047000161	WILLIAMSON	TX	34.0	31.6	3.8	4.1	1.10	1.04	79.1	80.5	29.7	27.3			1.0	1.0						
2004	CTBL	2047000162	WILLIAMSON	TX	33.9	33.8	4.0	4.0	1.10	1.07	80.3	80.8	29.6	29.4			2.0	2.0						
2004	CTBL	2047000163	HILL	TX	35.2	33.6	4.5	4.9	1.11	1.05	80.9	80.7	32.7	31.3			2.0	1.0						
2004	CTBL	2047000164	HILL	TX	35.5	33.3	4.6	5.0	1.09	1.07	81.7	82.2	29.2	29.8			3.0	2.0						
2004	CTBL	2047000165	HILL	TX	34.8	31.6	4.4	4.6	1.10	1.12	81.2	82.8	28.6	33.1			1.0	2.0						
2004	CTBL	2047000166	ELLIS	TX	30.9	31.5	4.1	4.3	1.09	1.10	82.2	81.1	31.7	29.4			4.0	1.0						
2004	CTBL	2047000173	ROBERTSON	TX	39.2	36.5	4.0	4.7	1.15	1.14	81.4	82.8	32.3	33.4			1.0	2.0						
2004	CTBL	2047000174	BRAZOS	TX	34.6	32.4	4.1	4.0	1.13	1.12	82.4	82.1	33.1	33.9			2.0	1.0						
2004	CTBL	2047000175	BURLESON	TX	36.4	31.7	4.2	4.5	1.17	1.18	82.0	82.5	32.6	33.2			2.0	2.0						
2004	CTBL	2047000178	WILLIAMSON	TX	33.9	32.9	4.2	4.2	1.08	1.10	80.6	82.4	31.7	31.6			1.0	2.0						
2004	NODE	2048000541	LEE	MS	39.3	36.5	3.7	4.0	1.16	1.10	83.7	82.6	31.7	33.5			1.0	1.0						
2004	NODE	2048000567	MONROE	MS	38.0	35.4	3.9	4.0	1.10	1.06	82.5	81.9	29.3	30.3			3.0	1.0						
2004	NODE	2048000568	LAFAYETTE	MS	38.9	36.1	3.6	3.9	1.18	1.11	79.4	81.6	35.0	35.1			3.0	1.0						
2004	NODE	2048000569	COAHOMA	MS	36.9	35.7	3.7	4.2	1.09	1.13	81.2	83.1	29.2	30.9			2.0	1.0						

Table 1. Head to head comparisons of DP 455 BG/RR with DP 449 BG/RR

					Lint Turnout		Micronaire		Length		Uniformity Ratio		Strength		Elongation		Leaf Trash		Plant Height		Seed Index		Lint Index	
YEAR	REG-ION	EXPT	COUNTY	STATE	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR
2004	NODE	2048000574	FAYETTE	TN	38.5	38.6	4.2	4.3	1.12	1.06	83.1	81.6	36.2	34.9			1.0	1.0						
2004	NODE	2048000576	HAYWOOD	TN	41.2	38.3	4.0	4.5	1.12	1.06	83.0	79.9	35.7	35.1			2.0	1.0						
2004	NODE	2048000579	ITAWAMBA	MS	39.1	37.1	3.8	4.1	1.11	1.10	81.1	81.8	33.4	30.3			1.0	1.0						
2004	SOSE	2049000173	AUTAUGA	AL	40.6	41.2	4.6	4.9	1.11	1.06	80.3	82.9	34.6	28.5			4.0	1.0						
2004	SOSE	2049000174	JACKSON	FL	40.2	35.2																		
2004	SOSE	2049000175	MITCHELL	GA	38.9	36.4	4.2	4.5	1.12	1.03	80.6	77.6	33.0	30.4			4.0	2.0						
2004	SOSE	2049000176	GRADY	GA	38.1	35.4	3.7	4.3	1.16	1.04	80.2	77.4	34.1	29.5			2.0	2.0						
2004	SOSE	2049000177	EARLY	GA	38.2	36.2																		
2004	SOSE	2049000178	TALLAPOOSA	AL	40.0	36.2	4.3	4.4	1.09	1.09	81.9	82.1	31.7	32.3			2.0	1.0						
2004	SOSE	2049000181	CALHOUN	GA	38.4	35.5																		
2004	SOSE	2049000183	DECATUR	GA	34.7	34.1	3.7	3.3	1.10	1.13	80.7	81.4	31.9	32.5			3.0	1.0						
2004	SOSE	2049000184	DECATUR	GA	35.0	33.7																		
2004	SODE	2050000297	WASHINGTON	MS	39.7	34.6	3.7	4.0	1.17	1.19	82.2	82.2	32.7	35.2			3.0	2.0						
2004	SODE	2050000298	BOLIVAR	MS	37.0	34.3	3.9	3.9	1.17	1.16	82.0	82.8	33.3	34.8			2.0	1.0						
2004	SODE	2050000299	HOLMES	MS	37.1	34.3	3.8	4.0	1.11	1.12	79.7	82.5	34.4	35.8			2.0	2.0						
2004	SODE	2050000300	SHARKEY	MS	35.0	32.7	4.1	4.3	1.18	1.19	82.7	82.6	32.0	32.5			3.0	2.5						
2004	NODE	2050000301	CALHOUN	MS	40.3	36.2	4.2	4.5	1.12	1.09	81.7	81.7	32.8	33.7			4.0	1.0						
2004	NODE	2050000303	TALLAHATCHI	MS	37.2	36.4	4.0	4.3	1.16	1.12	82.1	83.1	31.0	33.4			1.0	2.0						
2004	SODE	2050000307	LEFLORE	MS	35.6	34.9	4.0	4.3	1.19	1.16	82.5	83.5	30.8	32.0			4.0	4.0						
2004	SOHP	2051000200	DAWSON	TX	34.4	34.2																		
2004	SOHP	2051000202	GAINES	TX	34.6	33.1	3.7	3.6	1.14	1.15	81.1	81.4	27.2	28.3			4.0	2.0						
2004	SOHP	2051000206	YOAKUM	TX	31.1	27.9	3.4	3.3	1.08	1.08	79.7	81.5	30.0	29.6			2.0	3.0						
2004	NOSE	2052000291	SAMPSON	NC	41.0	36.1	4.1	4.6	1.15	1.10	80.7	80.9	29.4	26.7			4.0	2.0						
2004	NOSE	2052000294	EDGECOMBE	NC	42.3	40.1	4.3	4.6	1.13	1.14	81.1	82.5	29.0	30.7			3.0	2.0						
2004	NOSE	2052000295	GREENE	NC	40.0	38.6																		
2004	NOSE	2052000296	NORTHAMPTO	NC	43.5	38.8	4.3	4.5	1.08	1.07	80.3	82.4	26.2	27.3			3.0	2.0						
2004	NOSE	2052000297	SAMPSON	NC	42.6	40.7	4.2	4.5	1.10	1.08	80.7	82.8	29.9	29.7			2.0	1.0						
2004	SOSE	2053000147	IRWIN	GA	40.4	38.5	4.5	5.5	1.10	1.11	80.3	81.2	30.2	32.1			2.0	1.0						
2004	SOSE	2053000151	BROOKS	GA	38.6	36.9																		
2004	SOSE	2053000152	COFFEE	GA	39.6	38.6	3.8	3.7	1.12	1.10	80.1	82.5	27.4	29.9			4.0	1.0						
2004	SOSE	2053000154	EMANUEL	GA	39.3	34.0	4.1	4.3	1.09	1.18	80.5	80.4	30.2	32.1			1.0	2.0						
2004	SOSE	2053000155	COOK	GA	36.8	37.5	3.7	3.6	1.10	1.06	79.4	81.2	26.6	28.9			4.0	1.0						
2004	SOSE	2053000156	PULASKI	GA	40.1	37.3																		
2004	SOSE	2053000159	COOK	GA	37.7	35.2	3.5	3.6	1.09	1.08	80.6	81.6	29.7	29.9			3.0	1.0						
2004	SODE	2054000137	CONCORDIA	LA	36.4	35.0	4.4	5.2	1.12	1.07	82.2	81.1	31.4	27.8			1.0	1.0						
2004	SODE	2054000139	RAPIDES	LA	40.4	38.2	4.1	4.4	1.18	1.16	81.5	81.0	31.2	30.4			4.0	2.0						
2004	SODE	2054000140	CONCORDIA	LA	36.2	34.9	4.2	4.4	1.15	1.15	81.4	82.7	30.4	34.1			1.0	2.0						
2004	SODE	2054000141	CADDO	LA	36.3	37.2	3.8	4.3	1.09	1.14	81.3	80.5	33.0	31.2			2.0	2.0						
2004	SODE	2054000142	CADDO	LA	37.9	35.3	3.7	4.1	1.14	1.15	81.6	81.5	34.1	35.2			1.0	3.0						
2004	SODE	2054000143	RAPIDES	LA	40.3	38.2	4.3	4.4	1.15	1.17	82.4	82.6	30.2	33.7			2.0	4.0						
2004	SODE	2054000144	RAPIDES	LA	39.2	36.5	4.2	4.6	1.15	1.15	82.3	82.8	32.2	32.4			3.0	1.0						
2004	SODE	2054000146	OUACHITA	LA	38.0	35.8	4.1	4.6	1.14	1.12	80.5	82.7	31.0	35.5			4.0	1.0						
2004	SODE	2054000147	TENSAS	LA	38.4	34.1																		
2004	NODE	2056000229	SCOTT	MO	44.5	37.3	4.0	3.8	1.12	1.14	83.1	82.8	31.3	34.2			1.0	1.0						
2004	NODE	2056000230	NEW MADRID	MO	38.0	39.2																		

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Table 1. Head to head comparisons of DP 455 BG/RR with DP 449 BG/RR

					Lint Turnout		Micronaire		Length		Uniformity Ratio		Strength		Elongation		Leaf Trash		Plant Height		Seed Index		Lint Index	
YEAR	REG-ION	EXPT	COUNTY	STATE	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR	DP 455 BG/RR	DP 449 BG/RR
2004	NODE	2056000232	POINSETT	AR	36.3	37.3	3.8	4.2	1.21	1.11	83.1	83.2	32.3	32.5			1.0	2.0						
2004	NODE	2056000235	NEW MADRID	MO	38.3	36.7	3.9	4.0	1.13	1.12	83.4	83.1	32.4	33.7			2.0	1.0						
2004	NODE	2056000236	MISSISSIPPI	AR	35.3	34.6	3.6	3.7	1.21	1.16	82.2	82.4	29.8	31.0			3.0	2.0						
2004	NODE	2056000237	DUNKLIN	MO	39.1	37.8	4.0	4.5	1.22	1.14	82.0	82.3	30.8	28.2			1.0	1.0						
2004	NOSE	2060000260	DARLINGTON	SC	41.3	38.1	4.3	4.5	1.13	1.12	80.5	82.9	29.0	29.8			3.0	1.0						
2004	NOSE	2060000263	ROBESON	NC	40.0	38.4																		
2004	SOSE	2060000264	ORANGEBURG	SC	39.7	37.1	4.0	3.7	1.13	1.14	81.1	81.4	34.7	35.6			2.0	2.0						
2004	NOSE	2060000267	DILLON	SC	39.6	37.9	4.1	4.3	1.10	1.09	81.7	82.1	31.7	32.0			1.0	1.3						
2004	NOSE	2060000269	SCOTLAND	NC	37.9	40.5	4.1	4.6	1.14	1.12	81.3	81.6	29.8	30.3			1.0	2.0						
2004	SOSE	2060000271	HAMPTON	SC	40.3	38.1	4.6	4.8	1.09	1.10	81.4	82.5	29.5	27.5			1.0	1.0						
2004	WMEX	2101000036	MEXICALI	MX	31.8	34.2	4.8	4.9	1.12	1.13	83.7	82.5	31.0	30.4			1.5	1.5						
		Average			39.90	37.46	4.12	4.36	1.139	1.123	82.35	82.80	31.41	31.73	11.74	11.90	2.23	1.68	98.2	87.3	8.94	9.49	6.63	6.24
		No. Comparisons			190		150		150		150		150		25		92		13		3		3	
		Difference			2.45		-0.25		0.016		-0.45		-0.32		-0.17		0.55		10.9		-0.54		0.39	
		F ratio - Analysis of Variance			445.678		156.145		35.647		19.844		4.520		1.667		16.677		6.118		9.380		11.593	
		Probablity of difference - F test			<0.0001		<0.0001		<0.0001		<0.0001		0.0351		0.2090		<0.0001		0.0293		0.0921		0.0765	

Values in red are derived from the Analysis of Variance routine in the EXCEL - ANALYSIS TOOL PAK add-in

2005 0052

Table 2. PVP Trial - 2004 - Scott, MS

Ent	Xno	Lint Percent	Mic	Len	Ur	T1	E1	Mr	Cm to FFB	FB5 Cm to FFN	Seeds /boll	Seed Cotton /boll	Lint /boll	Seed Index	Lint Index	Lint to Seed Ratio
1	**DP 424 BGII/RR**	38.6	4.6	1.13	84	27.3	12.9	85.8	10.7	12.6	33.0	5.7	2.2	10.7	6.7	0.63
3	**DP 555 BG/RR**	44.7	4.8	1.13	83	27.3	10.4	87.8	12.5	15.3	33.1	4.9	2.2	8.1	6.6	0.81
5	**DP 493**	44.5	4.7	1.15	83	29.8	10.0	87.8	10.0	13.9	35.4	5.2	2.3	8.1	6.5	0.80
6	**DP 491**	42.7	4.4	1.22	84	31.2	9.5	88.0	12.9	13.5	29.4	5.2	2.2	10.2	7.6	0.74
7	**DP 494 RR**	42.3	4.7	1.18	84	31.4	10.1	88.3	10.0	12.3	28.4	4.9	2.1	10.0	7.4	0.73
12	**DP 488 BG/RR**	41.8	4.5	1.18	85	31.3	10.2	87.3	13.1	14.0	29.3	5.2	2.1	10.3	7.4	0.72
14	**DP 455 BG/RR**	43.3	4.1	1.15	84	30.3	10.0	87.0	10.8	12.7	32.2	5.1	2.2	9.0	6.9	0.76
15	**DP 449 BG/RR**	40.5	4.7	1.15	84	31.2	9.9	88.0	11.0	14.3	31.4	5.1	2.1	9.7	6.6	0.68
18	**DeltaPEARL**	41.8	4.6	1.18	84	30.4	9.6	87.8	12.0	15.2	33.1	5.1	2.1	8.8	6.4	0.72
21	**DP 432 RR**	41.0	4.7	1.12	83	29.4	12.6	85.8	10.9	12.4	32.8	5.4	2.2	9.6	6.7	0.70
22	**ST 4793 RR**	42.7	4.8	1.10	84	28.4	11.8	86.8	9.1	11.6	28.6	5.3	2.3	10.7	7.9	0.74
26	**DP 5415 RR**	46.3	4.6	1.19	84	30.2	11.6	86.8	13.2	15.7	31.2	5.0	2.4	8.5	7.4	0.86
31	**DP 393**	39.4	4.9	1.16	85	30.3	12.7	86.8	12.1	13.4	32.2	5.2	2.0	9.8	6.4	0.65
	Mean	42.0	4.8	1.18	86	30.8	11.8	87.3	10.4	15.0	32.2	5.9	2.5	10.5	7.7	0.73
	Cv	1.4	2.8	1.6	0.8	3.1	4.5	0.7	22.3	12.9	7.5	6.3	6.4	3.5	3.7	2.4
	Lsd .05	0.7	0.2	0.02	0.8	1.1	0.6	0.7	2.9	2.1	2.8	0.4	0.2	0.4	0.3	0.02
	No. Reps	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Heritability	0.98	0.90	0.88	0.69	0.90	0.87	0.70	0.49	0.29	0.62	0.81	0.85	0.95	0.94	0.98
	R-squared	0.93	0.75	0.72	0.44	0.76	0.90	0.78	0.30	0.47	0.36	0.58	0.66	0.87	0.85	0.93

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Table 3. PVP Trial - Scott, MS - 2004 - Plant Map Summary

Ent	Variety	Total Nodes	Nodes to FFB	Fruiting Branches	HNR	NAWF 8-Jul	Date of First Flower
1	DP 424 BGII/RR	21.0	6.0	15.1	2.15	8.0	4-Jul
3	DP 555 BG/RR	24.5	6.3	18.2	2.08	9.1	3-Jul
5	DP 493	22.5	5.6	16.9	2.11	8.7	3-Jul
6	DP 491	21.0	5.8	15.3	2.17	8.5	2-Jul
7	DP 494 RR	22.5	5.8	16.8	2.22	7.9	1-Jul
12	DP 488 BG/RR	21.4	5.5	15.9	2.11	8.7	3-Jul
14	DP 455 BG/RR	22.9	6.0	17.0	2.25	8.5	1-Jul
15	DP 449 BG/RR	21.9	5.7	16.3	2.22	8.6	5-Jul
18	DeltaPEARL	23.4	6.5	16.9	2.00	9.0	1-Jul
21	DP 432 RR	21.3	5.9	15.5	2.34	7.7	3-Jul
22	ST 4793 RR	21.7	6.1	15.6	2.24	8.3	2-Jul
26	DP 5415 RR	22.0	6.0	16.0	2.18	8.0	3-Jul
31	DP 393	18.8	5.1	13.8	2.26	7.4	2-Jul
	Mean	**21.8**	**5.9**	**16.0**	**2.21**	**8.4**	**3-Jul**
	LSD 0.05	1.5	0.5	1.4	0.14	0.7	NS
	Std. Error	0.5	0.2	0.5	0.05	0.2	1
	P	<.0001	<.0001	<.0001	<.0001	0.000	0.827
	C.V.%	4.9	6.3	6.2	4.5	5.6	1.3
	Ortagonal Contrast	**Prob>|t|**	**Prob>|t|**	**Prob>|t|**	**Prob>|t|**	**Prob>|t|**	**Prob>|t|**
	DP 455 BG/RR vs. DP 449 BG/RR	0.187	0.254	0.318	0.696	0.765	0.021

Planted 4/29/2003

HNR = Height and Node Ratio

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Table 4. Relative Maturity[1]

Cultivar	No of data points	DD60's to 100% open[2]
DP 444 BG/RR	223	0.0
PM 1218 BG/RR	118	31.2
SG 215 B/RR	183	31.8
DP 424 BGII/RR	132	48.8
DP 451 B/RR	164	66.3
DP 445 BG/RR	78	68.1
DP 449 BG/RR	270	82.3
DP 458 B/RR	159	91.4
DP 655 B/RR	65	92.0
DP 455 BG/RR	61	94.5
DP 543 BGII/RR	48	95.6
DP 488 BG/RR	127	99.2
DP 555 BG/RR	266	136.5
LSD.05		27.2

[1] 2002-2004 Final Plant Maps - Beltwide

[2] Degree day at 60°F. Least squares analysis of variance. Adjusted to earliest cultivar.

Explanations:	
Lint Percent =	percentage of the seed cotton that is lint, handpicked samples
Mic =	micronaire, measure of fiber fineness (high = coarse fiber)
Len =	fiber length (inches)
Ur =	uniformity ratio, proportion of uniform length fibers
T1 =	fiber strength, grams per tex (high = stronger fiber)
E1 =	elongation, measure of fiber elasticity, (high = more elastic)
Mr =	fiber maturity ratio
Cm to FFB =	cm to first fruiting branch
FB5 cm to FFN =	cm from main stem to first fruiting node at fruiting branch 5
Seed/boll =	number of seeds per boll, handpicked samples
Seed cotton/boll =	weight of seedcotton per boll, handpicked samples
Lint/boll =	weight of lint per boll, handpicked samples
Lint Percent =	percentage of the seed cotton that is lint, handpicked samples
Seed Index =	weight of 100 seed (grams)
Lint Index =	weight of lint per seed (milligrams)

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EXHIBIT C
(COTTON)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY
COTTON (*Gossypium* spp.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
D&PL Technology Holding Company, LLC.	**02X39BR**	**DP 455 BG/RR**

ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)

PO Box 157
100 Main Street
Scott, MS 38772 USA

FOR OFFICIAL USE ONLY
PVPO NUMBER
20050052

Place the appropriate data that describes the varietal characteristic of this variety in the space provided. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characters marked with an asterisk * indicate necessary characters to be measured.

SPECIFIC VARIETIES USED FOR COMPARISON AS CHECK VARIETIES IN THIS APPLICATION: Use standard regional check varieties which are adapted to your area. One of the comparison varieties must be the most similar variety used in Exhibit B.

Variety 1. ___DP 449 BG/RR_____ Variety 2. _____ Variety 3 _____.

*1. SPECIES:

__X___ *G. hirsutum* L. _____ *G. barbadense* L.

*2. AREA(S) OF ADAPTATION: (A = Adapted, NA = Not Adapted, NT = Not Tested)

__A_Eastern	_A_Delta	_A_Central	_A__Blacklands
_ A_Plains	_A_Western	_A_Arizona	_NT_San Joaquin

____Other (Specify): _____

3. GENERAL: Characteristics which are known to be variable but are still useful for a meaningful description of the variety.

	Application Variety	Comparison Variety 1	Comparison Variety 2	Comparison Variety 3
Plant Habit: Spreading, Intermediate, Compact	__Intermediate___	___ Intermediate ___	_____	_____
Foliage: Sparse, Intermediate, Dense	__Intermediate___	___ Intermediate ___	_____	_____
Stem Lodging: Lodging, Intermediate, Erect	___Intermediate___	_____Erect_____	_____	_____
Fruiting Branch: Clustered, Short, Normal	___Normal_____	_____Normal_____	_____	_____

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3. GENERAL: (continued)

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Growth:
Determinate, Intermediate,
Indeterminate __Intermediate_____ ____Intermediate____ _____ _____

Leaf Color:
Greenish yellow, Light green,
Medium green, Dark green __Medium green_____ ____Medium green____ _____ _____

Boll Shape: Length less than width,
Length equal to width,
Length more than width _Length>width_____ __ Length>width _____ _____ _____

Boll Breadth: Broadest at base,
Broadest at middle _Broadest at middle__ ___ Broadest at middle _ _____ _____

*4. MATURITY: (50 % Open bolls; Preferred method; Describe method if different method was used.)
Reference: Speed, T., et. al. 2004. A new method for measuring relative maturity differences. Proc. Beltwide Cotton Conf. San Antonio, TX Jan. 5-9, 2004. Nat'l Cotton Council, Memphis, TN. p. 1103-1105.
DD 60's to 100 % open bolls __94.5_____ ___82.3_____ _____ _____

5. PLANT:

Cm to 1st Fruiting Branch:
(from cotyledonary node) ___10.8_____ ___11.0_____ _____ _____

No. of Nodes to 1st Fruiting Branch:
(excluding cotyledonary node) ___6.0_____ ___5.7_____ _____ _____

Mature Plant Height cm:
(from cotyledonary node to terminal) ___98.2_____ ___87.3_____ _____ _____

*6. LEAF: Upper most, fully expanded leaf.

Type: Normal, Sub Okra,
Okra, Super Okra __Normal_____ ___Normal_____ _____ _____

Pubescence: Absent, Sparse,
Medium, Dense **OR** Trichomes/cm^2
(Bottom surface excluding veins) __Sparse_____ __Sparse_____ _____ _____

Nectaries: Present or Absent __Present_____ __Present_____ _____ _____

*7. STEM PUBESCENCE:
Glabrous, Intermediate, Hairy _Intermediate_____ __Intermediate_____ _____ _____

*8. GLANDS: (Gossypol) Absent, Sparse, Normal, More Than Normal

Leaf: __Normal_____ __Normal_____ _____ _____

Stem: __Normal_____ __Normal_____ _____ _____

Calyx Lobe: (normal is absent) __Normal_____ __Normal_____ _____ _____

*9. FLOWER:

Petals: Cream, Yellow __Cream_____ __Cream_____ _____ _____

Pollen: Cream, Yellow __Cream_____ __Cream_____ _____ _____

Petal Spot: Present, Absent __Absent_____ __Absent_____ _____ _____

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*10. SEED:

20050052

Seed Index: (g/100 seed, fuzzy basis)	8.94	9.49		
Lint Index: (g lint/100 seeds)	6.63	6.24		

*11. BOLL:

Lint Percent: ___ Picked ___ Pulled				
OR				
Gin Turnout: X Picked ___ Stripped	39.90	37.46		
Number of Seeds per Boll	32.2	31.4		
Grams Seed Cotton per Boll	5.1	5.1		
Number of Locules per Boll	4-5	4-5		
Boll Type: (Stormproof, Storm Resistant, Open)	Open	Open		

12. FIBER PROPERTIES:

Specify Method (HVI or other):	HVI			
* **Length:** (inches, 2.5% SL)	1.139	1.123		
* **Uniformity:** (%)	82.35	82.80		
* **Strength**, T1 (g/tex)	31.41	31.73		
* **Elongation**, E1 (%)	11.74	11.90		
* **Micronaire:**	4.12	4.36		
Fineness (Source_____)	NT	NT		
Yarn Tenacity: (cN/tex, 27 tex)	NT	NT		
Yarn Strength: (lbs. 22's)	NT	NT		

13. DISEASES: (NT = Not Tested, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant)

NT *Alternaria macrospora*	MR Fusarium Wilt
NT Anthracnose	NT Phymatotrichum Root Rot
NT Ascochyta Blight	NT *Pythium* (specify species)
NT Bacterial Blight (Race 1)	NT *Rhizoctonia solani*
NT Bacterial Blight (Race 2)	NT Southwestern Cotton Rust
NT Bacterial Blight (Race____)	NT Thielayiopsis basicola

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13. DISEASES : (continued)

__NT____Diplodia Boll Rot

_NT_____Verticillium Wilt

_____Other (specify)_____

14. NEMATODES, INSECTS AND PESTS: (NT = Not Tested, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant)

_MR____Root-Knot Nematode

_MR___Reniform Nematode

_NT____Boll Weevil

_NT__Grasshopper (specify species):_____

_NT____Bollworm

_NT____Lygus (specify species):_____

_NT____Cotton Aphid

_NT____Pink Bollworm

_NT____Cotton Fleahopper

_NT____Spider Mite (specify species):_____

_NT____Cotton Leafworm

_NT____Stink Bug (specify species):_____

_NT____Cutworm (specify species):_____

_NT___Thrips (specify species):_____

_NT____Fall Armyworm

_NT____Tobacco Bud Worm

_____Other (specify):_____

15. COMMENTS: Present any additional information that cannot adequately be described in 1 through 13 which significantly distinguishes your variety.

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
D&PL TECHNOLOGY HOLDING COMPANY, LLC.	**02X39BR**	**DP 455 BG/RR**
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(Include area code)*	6. FAX *(Include area code)*
P.O. Box 157 **Scott, Mississippi 38772**	**(662) 742-4141**	**(662) 742-3182**
	7. PVPO NUMBER 20050052	

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** YES [X] NO [ ]

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** YES [X] NO [ ]

10. Is the applicant the original owner? YES [X] NO [ ] **If no, please answer <u>one</u> of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
[ ] YES [ ] NO **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
[ ] YES [ ] NO **If no, give name of country**

11. Additional explanation on ownership *(If needed, use the reverse for extra space)*:

DP 455 BG/RR contains two proprietary genes, patented by the Monsanto Company and licensed to D&PL. One gene encodes a protein providing resistance to the herbicide glyphosate, and the other encodes an insect toxin.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) ot the Plant Variety Protection Act for definitions.

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