

No.

7100200



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

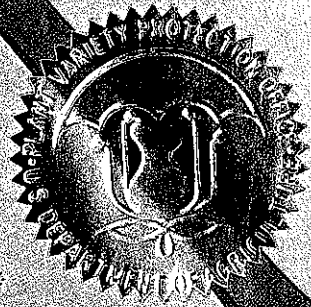
**A&H Technology Holding Corp.**

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 RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'DP 5806 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 tenth day of April, in the year two thousand three.

Attest

*Q. M. J. [Signature]*

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*[Signature]*

Secretary of Agriculture

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

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 FOR PLANT VARIETY PROTECTION CERTIFICATE**  
 (Instructions and information collection burden statement on reverse)

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 <b>D&amp;PL Technology Holding Corp.</b>		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME <b>DPX 9758 RR</b>	3. VARIETY NAME <b>DP 5806 RR</b>
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country ) <b>PO Box 157 100 Main Street Scott, Mississippi 38772 USA</b>		5. TELEPHONE (include area code) <b>(662) 742-4141</b>	PVPO NUMBER <b>9700260 (ST: 10/4/2007)</b>
		6. FAX (include area code) <b>(662) 742-3182</b>	
7. IF THE OWNER IS NOT A "PERSON" GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) <b>Corporation</b>	8. IF INCORPORATED, GIVE STATE OF INCORPORATION <b>Delaware</b>	9. DATE OF INCORPORATION <b>February 29, 1996</b>	

FILING DATE  
**April 4, 1997**

FILING AND EXAMINATION FEE: **2,450.00**

\$

DATE **April 4, 1997**

CERTIFICATION FEE: **320.00**

\$

DATE **2/6/03**

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**

11. TELEPHONE (include area code) <b>(662) 742-4141</b>	12. FAX (include area code) <b>(662) 742-3182</b>	13. E_MAIL <b>kelly.h.casavechia@deltandpine.com</b>	14. CROP KIND (Common Name) <b>Soybean</b>
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15. GENUS AND SPECIES NAME OF CROP <b>Glycine Max</b>	16. FAMILY NAME (Botanical) <b>Leguminosae</b>	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse).

a.  Exhibit A. Origin and Breeding History of the Variety

b.  Exhibit B. Statement of Distinctness

c.  Exhibit C. Objective Description of the Variety

d.  Exhibit D. Additional Description of the Variety (Optional)

e.  Exhibit E. Statement of the Basis of the Owner's Ownership

f.  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.  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 VARIETY 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)  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. OR OTHER COUNTRIES?

YES  NO - As of the original date of the application 3/27/97

IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE 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)?

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
NAME (Please print or type) <b>William V. Hugie</b>	NAME (Please print or type)
CAPACITY OR TITLE <b>Vice President/Dir. of Research</b>	DATE
DATE	CAPACITY OR TITLE
DATE	DATE

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 unfilled. 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 payable 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 varieties, 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 related 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, Section 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 the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

ROUNDUP READY<sup>®</sup> cotton ~~bean~~ (BT: 10/30/2002)

These seeds are covered under U.S. Patents 5,633,435; 5,352,605; 5,530,196; 5,188,642; 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/lsg-sd.htm>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond 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 8.0a. Replaces STD-470 (02-99) which is obsolete.

**EXHIBIT A**  
**D&PL TECHNOLOGY HOLDING CORP.'S**  
**APPLICATION FOR DP 5806 RR**

**ORIGIN AND BREEDING HISTORY**

Summer		
Winter	1992	Original cross and first backcross made between DPX 2384, an experimental breeding line, and Roundup Resistant experimental line 40-3-2
Fall	1992	DP 415 crossed with Roundup resistant F <sub>1</sub> plants from 2384 BC <sub>1</sub> F <sub>1</sub>
Winter	1993	P9592 crossed to Roundup resistant F <sub>1</sub> plants from DP415 x 2384 BC <sub>1</sub> F <sub>1</sub>
Summer	1993	Cross 93408 made - A5979 crossed to Roundup resistant F <sub>1</sub> plants from P9592 x (DP 415 x 2384 BC <sub>1</sub> F <sub>1</sub> )
Winter	1993-94	Roundup tolerant F <sub>1</sub> plants advanced to F <sub>2</sub> under lights from cross 93408 under lights in Costa Rica and F <sub>2</sub> seed was bulked.
Summer	1994	Roundup resistant F <sub>2</sub> advanced to F <sub>3</sub> by modified single seed descent in Costa Rica
Fall	1994	Roundup resistant F <sub>3</sub> plants space planted. Individual plant selections harvested and threshed separately
Winter	1994-95	F <sub>4</sub> Roundup resistant plant rows from cross 93408 were grown in 3 meter rows in Costa Rica. Row 93408-742 was selected, composited and determined to be uniform and stable for characteristics described in Exhibit C of this application. No variants were known or observed at this time and hence to the present.
Summer	1995	Yield tested at Scott, Mississippi.
Fall	1995 -	
Spring	1996	Border rows harvested and sent to Costa Rica for a double increase in Fall of 1995 and Winter of 1996. About 150 units of breeder seed were produced.
Summer	1996	93408-742 yield tested in 9 Delta and Pine Land Company tests and increased to 5733 bushels of foundation seed. 93408-742 was designated as DPX 9758 <sup>RR</sup>
Summer	1997	DPX 9758 <sup>RR</sup> designated and released as DP 5806 RR.

**EXHIBIT B**

~~DELTAPINE SEED'S APPLICATION FOR DP 5806RR~~  
DPL Technology Holding Corporation (BT8/30/2002)

**NOVELTY STATEMENT**

To our knowledge, DP 5806RR most resembles A5979, DP 5960RR, and DP 6200RR. Differences include, but are not restricted to the following:

- 1) DP 5806RR is resistant to frogeye leafspot whereas A5979 is susceptible.
- 2) DP 5806RR is resistant to stem canker whereas A5979 is susceptible.
- 3) DP 5806RR is segregating for resistance to soybean mosaic virus whereas DP 5960RR and DP 6200RR are resistant.
- 4) DP 5806RR is tolerant to high chloride soils whereas DP 5960RR and DP 6200RR are sensitive to high chloride soils.

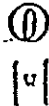
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY  
SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) DPL Technology Holding Corporation Delta and Pine Land Company d/b/a Deltapine Seed	TEMPORARY DESIGNATION DPX9758RR	VARIETY NAME DP 5806RR
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code)  100 MAIN STREET SCOTT, MS 38772		FOR OFFICIAL USE ONLY PVPO NUMBER 9700260

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is lower than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g.,  ). Starred characters \* are considered fundamental to an adequate soybean variety description. Other characters should be described when information is available.

1. SEED SHAPE:



1 - Spherical (LW, LT, and TW ratios = < 1.2)  
 3 - Elongate (LT ratio > 1.2; TW = < 1.2)

2 - Spherical Flattened (LW ratio > 1.2; LT ratio = < 1.2)  
 4 - Elongate Flattened (LT ratio > 1.2; TW > 1.2)

\* 2. SEED COAT COLOR: (Mature Seed)

1 - Yellow      2 - Green      3 - Brown      4 - Black      5 - Other (Specify) \_\_\_\_\_

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

1 - Dull ('Corsoy 79'; 'Braxton')      2 - Shiny ('Nebsoy'; 'Gosoy 177')

\* 4. SEED SIZE: (Mature Seed)

Grams per 100 seeds

\* 5. HILUM COLOR: (Mature Seed)

1 - Buff      2 - Yellow      3 - Brown      4 - Gray      5 - Imperfect Black      6 - Black      7 - Other (Specify) \_\_\_\_\_

\* 6. COTYLEDON COLOR: (Mature Seed)

1 - Yellow      2 - Green

\* 7. SEED PROTEIN PEROXIDASE ACTIVITY:

1 - Low      2 - High

\* 8. SEED PROTEIN ELECTROPHORETIC BAND:

1 - Type A (SP1<sup>a</sup>)      2 - Type B (SP1<sup>b</sup>)

\* 9. HYPOCOTYL COLOR:

1 - Green only ('Evans'; 'Davis')      2 - Green with bronze band below cotyledons ('Woodworth'; 'Tracy')  
 3 - Light Purple below cotyledons ('Beeson'; 'Pickett 71')  
 4 - Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

\* 10. LEAFLET SHAPE:

1 - Lanceolate      2 - Oval      3 - Ovate      4 - Other (Specify) \_\_\_\_\_

11. LEAFLET SIZE:

2

1 - Small ('Amsoy 71'; 'AS312')  
3 - Large ('Crawford'; 'Tracy')

2 - Medium ('Corsoy 79'; 'Gasoy 17')

12. LEAF COLOR:

2

1 - Light Green ('Weber'; 'York')  
3 - Dark Green ('Gnome'; 'Tracy')

2 - Medium Green ('Corsoy 79'; 'Braxton')

★ 13. FLOWER COLOR:

1

1 - White

2 - Purple

3 - White with purple throat

★ 14. POD COLOR:

1

1 - Tan

2 - Brown

3 - Black

★ 15. PLANT PUBESCENCE COLOR:

1

1 - Gray

2 - Brown (Tawny)

16. PLANT TYPES:

2

1 - Slender ('Essex'; 'Amsoy 71')  
3 - Bushy ('Gnome'; 'Govan')

2 - Intermediate ('Amcor'; 'Braxton')

★ 17. PLANT HABIT:

1

1 - Determinate ('Gnome'; 'Braxton')

2 - Semi-Determinate ('Will')

3 - Indeterminate ('Nebsoy'; 'Improved Pelican')

★ 18. MATURITY GROUP:

0  8

1 - 000  
9 - VI

2 - 00  
10 - VII

3 - 0  
11 - VIII

4 - I  
12 - IX

5 - II  
13 - X

6 - III

7 - IV

8 - V

Maturity subgroup = 5.9 (BT: 10/4/2002 per applicant's most recent correspondence rec'd 10/4/2002)

★ 19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

BACTERIAL DISEASES:

★  2

Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)

★  0

Bacterial Blight (*Pseudomonas glycines*)

★  0

Wildfire (*Pseudomonas tabaci*)

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FUNGAL DISEASES:

★  0

Brown Spot (*Septoria glycines*)

Frogeye Leaf Spot (*Cercospora sojina*)

★

Race 1

Race 2

Race 3

Race 4

Race 5

Other (Specify)

0

Target Spot (*Corynespora cassicola*)

Race Unknown

0

Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)

0

Powdery Mildew (*Microspheera diffusa*)

★  0

Brown Stem Rot (*Cephalosporium gregatum*)

2

Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

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FUNGAL DISEASES: (Continued)

- \*  0 Pod and Stem Blight (*Diaporthe phaseolorum* var. *sojae*)
- 0 Purple Seed Stain (*Cercospora kikuchii*)
- 0 Rhizoctonia Root Rot (*Rhizoctonia solani*)
- Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)
- \*  1 Race 1     Race 2     Race 3     Race 4     Race 5     Race 6     Race 7
- Race 8     Race 9     Other (Specify) \_\_\_\_\_

VIRAL DISEASES:

- 0 Bud Blight (Tobacco Ringspot Virus)
- 0 Yellow Mosaic (Bean Yellow Mosaic Virus)
- \*  0 Cowpea Mosaic (Cowpea Chlorotic Virus)
- Pod Mottle (Bean Pod Mottle Virus) - DPX9758<sup>RR</sup> is segregating for resistance to Bean Pod mottle and soybean mosaic virus
- \*  Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

- Soybean Cyst Nematode (*Heterodera glycines*)
- \*  Race 1     Race 2     2 Race 3     Race 4     2 Other (Specify) Race 14
- 0 Lance Nematode (*Hoplostaimus Colombus*)
- \*  1 Southern Root Knot Nematode (*Meloidogyne incognita*)
- \*  0 Northern Root Knot Nematode (*Meloidogyne Hapti*)
- 1 Peanut Root Knot Nematode (*Meloidogyne arenaria*)
- 0 Reniform Nematode (*Rotylenchulus reniformis*)
- OTHER DISEASE NOT ON FORM (Specify): \_\_\_\_\_

BT: 1/10/4/2002 per applicant's permission

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- \*  0 Iron Chlorosis on Calcareous Soil
- 2 Other (Specify) DP 5806RR DPX9758<sup>RR</sup> is tolerant to high chloride soils

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- 0 Mexican Bean Beetle (*Epilachna varivestis*)
- 2 Potato Leaf Hopper (*Empoasca fabae*)
- 0 Other (Specify) \_\_\_\_\_

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	A5979	Seed Coat Luster	DP 3519 <sup>S</sup>
Leaf Shape	DP 3519 <sup>S</sup>	Seed Size	A5979
Leaf Color	DP 3519 <sup>S</sup>	Seed Shape	A5979
Leaf Size	DP 3519 <sup>S</sup>	Seedling Pigmentation	A5979



21. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/POD
				CM Width	CM Length	% Protein	% Oil		
DP9758 <sup>RR</sup> <small>Submitted</small> DP 5806RR	130	1.3	53					13	
DP 3519 <sup>S</sup> <small>Name of Similar Variety</small>	122	1.0	46					15	

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.F. and R.J. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A<sub>2</sub> in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

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USDA ARS - PVPD

**DP 5806 RR**

DP 5806 RR is an F<sub>3</sub> Roundup tolerant selection composited in the F<sub>4</sub> generation from the cross of A5979///P9592//DP 415/2384 BC<sub>1</sub>F<sub>1</sub> with Roundup tolerance derived from 40-3-2. It has white flowers, gray pubescence, and tan pods. Seeds are dull yellow with buff to imperfect black hila averaging 2900 seeds per pound. DP 5806 RR is resistant to races 3 and 14 soybean cyst nematode, stem canker and frog-eye leaf spot. It is field tolerant to phytophthora root rot and it is segregating for resistance to soybean mosaic virus. It is tolerant to high chloride soil. Yields of DP 5806 RR are very competitive with widely grown cultivars DP 3588 and Hutcheson and appear to be superior to Roundup tolerant cultivars H5088RR, H5566RR and AG5601.

**KEY FEATURES**

- Late group V Roundup tolerant with excellent yield potential
- Resistant to races 3 and 14 soybean cyst nematode
- Resistant to stem canker
- Resistant to frog-eye leaf spot
- Field tolerant to phytophthora root rot
- Tolerant to high chloride soils
- Susceptible to root knot nematodes

**CHARACTERISTICS**

Maturity	Late group V RM 5.9
Flower Color	White
Pubescence Color	Gray
Hilum Color	Buff
Plant Height	Medium
Lodging Resistance	Good
Shatter Resistance	Excellent
Seed Size	Medium(2900 sd/lb.)
Stem Canker	Resistant
Phytophthora Root Rot	Field Tolerant
Cyst Nematode	Resistant to Race 3 and 14
Common Root Knot Nematode	Susceptible
Peanut Root Knot Nematode	Susceptible
Lance Nematode	Unknown
Red Crown Rot	Unknown
Aerial Blight	Moderately Susceptible
Frog-eye Leaf Spot	Resistant
Sudden Death Syndrome	Unknown
Soybean Mosaic Virus	Segregating
High Chloride	Tolerant

**SOYBEAN VARIETY DESCRIPTION****Suggested Nominee Number: DPX9758<sup>RR</sup>****Experimental Designations: 93408-742 Key #5884 DPX 12<sup>RR</sup>****Submitted by: Grover Shannon****Date Submitted: January 1, 1997****Parentage: A5979 x [P9592 x (DP 415 x 2384 BC<sub>1</sub>F<sub>1</sub>)] Cross 93-408**  
*2384 - Selection from DP 415/DP 105***Maturity: Late group V - RM = ~~5.8~~ 5.9** *(per applicant's representative's request rec'd 6/14/2002 and dated 6/6/2002)*

Data Collected from 9 Replicated Yield Tests.

**I. Plant & Seed Characteristics:**

Flower Color:	White
Pubescence Color:	Gray
Hilum Color:	Buff
Pod Wall Color:	Tan
Seed Coat Luster:	Dull
Leaf Shape:	Ovate
Plant Type:	Determinate

## By States: 1996

LINE	TN	AR	MS	LA	NC	MEAN
DPX9758 <sup>RR</sup>	46.8	52.9	36.5	59.1	37.1	48.2
DP 3588	38.6	44.1	46.3	62.1	34.7	46.9
HUTCHESON	46.8	47.3	32.6	60.2	39.4	45.9
AG5601RR	44.5	43.2	31.8	52.9	34.2	41.9
H5088RR	37.2	36.6	34.3	53.2	29.5	39.1
H5566RR	37.2	42.9	22.8	50.7	35.9	38.5
# TESTS	1	3	2	2	1	9

## By Soil Type Planting and Disease Situation: 1996

Line	Loam	Clay	Cyst	Early Planted	Aerial Blight	Mean
DPX9758 <sup>RR</sup>	40.7	52.8	60.3	37.5	48.0	48.2
DP 3588	35.1	58.5	50.2	46.6	53.1	46.9
HUTCHESON	42.4	51.0	50.5	31.1	50.5	45.9
AG5601RR	35.2	46.0	51.4	38.1	39.1	41.9
H5088RR	30.5	49.8	42.5	30.9	44.5	39.1
H5566RR	34.8	44.6	48.7	22.8	35.0	38.5
# TESTS	3	2	2	1	1	1

YIELD IN BU/A  
BY TESTS AND LOCATIONS

1996 - 655M

LINE	TN UC	AR HS	AR DW	AR DM	MS SL	MS SC	LA TL	LA MG	NC CL	Mean
DP 3588	38.6	31.9	46.0	54.4	46.6	46.0	71.0	53.1	34.7	46.9
DPX9758 <sup>RR</sup>	46.8	38.2	58.0	62.6	37.5	35.4	70.1	48.0	37.1	46.1
HUTCHESON	46.8	41.0	46.5	54.4	31.1	34.0	69.9	50.5	39.4	45.9
AG5601	44.5	26.9	47.9	54.8	38.1	25.4	66.6	39.1	34.2	41.9
H5088RR	37.2	24.7	39.7	45.3	30.9	37.7	61.9	44.5	29.5	39.1
H5566RR	37.2	31.3	49.4	48.0	22.8	22.8	66.4	35.0	35.9	38.5
C.V. %	10.4	13.6	12.0	7.8	13.5	13.2	5.9	9.3	11.0	
LSD.10	6.6	6.4	5.5	4.7	6.1	5.7	4.2	4.7	3.9	

## II. Agronomic Characteristics: 1996

Line	Mat.	Plant Height	Ldg.	Shat.	Seeds \Lb.
DP 3588	+3	27	1.5	Exc.	2700
DPX9758 <sup>RR</sup>	+3	21	1.5	Exc.	3200
HUTCHESON	0	16	1.0	Exc.	2800
AG5601	-5	18	1.1	Good	3500
H5088RR	-2	19	1.2	Exc.	3500
H5566RR	-2	19	1.1	Exc.	3200

## III. Yield Data:

## 1996 Yield &amp; Agronomic Data Summary

Line	Yield	% Yield	Mat.	Hgt.	Ldg.
DPX9758 <sup>RR</sup>	48.2	105	0	22	1.2
DP 3588	46.9	102	+3	27	1.5
HUTCHESON	45.9	100	0	16	1.0
AG5601	41.8	91	-5	18	1.1
H5088RR	39.1	85	-2	19	1.2
H5566RR	38.5	84	-2	19	1.1
# Tests	9	9	3	9	9

## Yield Summary in Bu/A

## By Region: 1996

LINE	N of I-40		S of I-40		MEAN	
	YLD	% YLD	YLD	% YLD	YLD	% YLD
DPX9758 <sup>RR</sup>	40.7	96	51.9	109	48.2	105
DP 3588	35.0	83	52.9	111	46.9	102
HUTCHESON	42.4	100	47.7	100	45.9	100
AG5601RR	35.2	83	45.3	95	41.9	91
H5088RR	30.1	71	43.3	91	39.1	85
H5566RR	34.8	82	40.7	85	38.5	84
# TESTS	3	3	6	6	9	9

IV. DISEASE REACTION AND OTHER INFORMATION:

Cyst Nematode

DPX 9758RR is moderately resistant to both races 3 and 14 of soybean cyst nematode.

	<u>Race 3</u>				
	1994				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
DPX 9758RR	0	2	2	2	0
Res. Chk.	9	0	0	0	0
Sus. Chk.	0	0	3	8	2

9700260

Location: Jackson, TN  
 Conducted by: Dr. Lawrence Young  
 USDA, Nematologist

	<u>Race 14</u>				
	1996				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
DPX 9758RR	2	2	2	1	2
Res. Chk.	3	4	0	0	0
Sus. Chk.	0	0	0	0	6

Location: Jackson, TN  
 Conducted by: Dr. Lawrence Young  
 USDA, Nematologist

Root Knot Nematode 1 = No galling 5 = Very severe galling  
 DPX 9758RR is susceptible to both common and peanut root knot nematodes.

	Common Root Knot <u>M. Incognita</u> <u>1996</u>	Peanut Root Knot <u>M. arenaria</u> <u>1996</u>
DPX 9758RR	2.5	3.5
Res. Check	0.0	2.0
Sus. Check	5.0	5.0

Location: Jay, FL  
 Conducted by: Dr. Robert Kinloch  
 Professor of Nematology  
 University of Florida

Stem Canker

1 = No symptoms 5 = Very severe symptoms  
 DPX9758<sup>RR</sup> is resistant to stem canker.

1996

DPX9758 <sup>RR</sup>	0.0
HARTWIG	5.0
P9592	0.7
DP 415	0.0

Location: Scott, MS - Greenhouse  
 Conducted by: Grover Shannon

Frogeye Leaf Spot

1 = None 5 = Very Severe

DPX9758<sup>RR</sup> is untested against frogeye leafspot.

*<DPX 9758RR> was later found to show resistance to frogeye leaf spot (BT:10/4/2002 per applicant's permission given on 10/4/02)*

Sudden Death Syndrome

DPX9758<sup>RR</sup> is untested against sudden death syndrome

Aerial Blight

1 = None 5 = Very Severe

DPX9758<sup>RR</sup> is moderately susceptible to aerial web blight.

1996

DPX9758 <sup>RR</sup>	2.3
DP 3588	1.9
HUTCHESON	2.7
CLIFFORD	4.0
H5566RR	3.8

Location: Morganza, LA  
 Conducted by: Grover Shannon

Herbicide Tolerance

DPX9758<sup>RR</sup> is tolerant to the herbicide Roundup. It has no known sensitivity to other herbicides used according to the herbicide label.

Chloride Tolerance

DPX9758<sup>RR</sup> is a root excluder of chloride and is considered tolerant to withstand high chloride conditions in soils.

No. Of Plants as Chloride

	<u>Includers</u>	<u>Excluders</u>
DPX9758 <sup>RR</sup>	1	4

Soybean Mosaic Virus

DPX9758<sup>RR</sup> is segregating for resistance to soybean mosaic virus based on limited observations.

Seed Stock

There are 5733 bushels of DPX9758<sup>RR</sup> foundation seed.

U.S. DEPARTMENT OF AGRICULTURE  
 AGRICULTURAL MARKETING SERVICE

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).

**EXHIBIT E  
 STATEMENT OF THE BASIS OF OWNERSHIP**

1. NAME OF APPLICANT(S)  D&PL TECHNOLOGY HOLDING CORP.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER  DPX 9758RR	3. VARIETY NAME  DP 5806 RR
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)  P.O. BOX 157 SCOTT, MISSISSIPPI 38772	5. TELEPHONE (Include area code)  662.742.4141	6. FAX (include area code)  662.742.3182
7. PVPO NUMBER  9700260		

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

10. Is the applicant the original owner?  YES  NO If no, please answer one 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 5806 RR contains a proprietary gene, patented by the Monsanto Company and licensed to D&PL, Which encodes a protein which provides tolerance to glyphosate herbicide in ~~cotton~~ *soybean (BT: 10/1/02) per applicants permission.*

**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) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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