THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

D&PL Technology Holding Corporation

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 whereasm, upon due examination made, the said applicant(s) 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, conditioning it for propagation, or stocking it for any of the above purpose, or using it in inducing 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.)

COTTON

'DP 422 B/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 November, in the year two thousand two.
U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE
APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

1. NAME OF OWNER
Delta and Pine Land Company, dba/ dba
Deltapine Seed

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
DPX 9822B/RR

3. VARIETY NAME
DP 422 B/RR

4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)
200 N. Main Street
Scott, MS 38772

5. TELEPHONE (include area code)
(601) 742-4541
(601) 742-3795

6. FAX (include area code)
(601) 742-3795
(601) 742-3795

7. IF THE OWNER NAMED 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
Oct. 19, 1978

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
Dr. William V. Hugue
200 N. Main Street
Scott, MS 38772

11. TELEPHONE (include area code)
(601) 742-4541
(601) 742-3795

12. FAX (include area code)
662 792 4141
662 792 3182

13. E-MAIL
hugue62022946@mcmail.com

14. CROP KIND (Common Name)
cotton

15. GENUS AND SPECIES NAME OF CROP
Gossypium hirsutum

16. FAMILY NAME (Botanical)
Malvaceae

17. IS THE VARIETY A FIRST GENERATION HYBRID?

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 Variety
d. x Exhibit D Additional Description of 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 Plant Varieties Protection Office)

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY WILL BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Varieties Protection Act.

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY WILL BE LIMITED AS TO NUMBER OF GENERATIONS?

21. IF YES TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?

24. 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?

S&T-470 (6-98) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (03-96) which is obsolete.
(See reverse for instructions and information collection burden statement)
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 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 $2,450 ($300 filing fee and $2,150 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 payable to "Treasurer of the United States" in the amount of $300 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

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 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.

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.)

February 8, 1999, United States; DP 422 B/R-R sold for resale

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))

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 variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089.

Public reporting burden for this collection of information is estimated to average 30 minutes 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. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Agriculture, Clearance Officer, ORR, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the PPA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, age, disability, political beliefs, and marital or familial 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 the USDA Office of Communications at (202) 720-2791. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity employer.

SST-470 (8-96) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (03-96) which is obsolete.
DELTA AND PINE LAND COMPANY'S APPLICATION FOR DP 422 B/RR

ORIGIN AND BREEDING HISTORY

DP 422 B/RR was developed by the backcross breeding method. The donor parent for the "Roundup Ready" gene was a plant of the cotton variety COKER 312 LINE 1445 developed by the Monsanto Company. The donor parent for the Bt gene was a line with insertion 531 of construct PV-GH BK06 containing a Bacillus thuringiensis var. kurstaki pesticide protein developed by the Monsanto Company.

The F₁, BC₁, BC₂ crosses for both the Roundup and Bt genes were made in Delta and Pine Land's greenhouse in Scott, MS. BC₂ plants confirmed resistant to "Roundup" were crossed with BC₂ plants that were confirmed to carry the Bt gene. Plants confirmed to carry both genes were backcrossed to DP20 to get BC₃F₁ plants. BC₃F₁, BC₃F₂, BC₃F₂, and BC₃F₂ plants were selfed in the greenhouse at Scott, MS.

BC₃F₁ and BC₃F₂ progeny rows were grown at Scott, MS in the summer of 1997. Progeny rows were tested for trueness to type of the recurrent parent DP 20. Those true to type and also containing the "Roundup Ready Gene" and the "Bt Gene" in a homozygous form were bulked to form the variety DP 422 B/RR.

DP 422 B/RR was evaluated across the cotton belt in replicated research plots in 1998. Separate isolated increases of DP 422 B/RR were grown in 1998.
DELTA AND PINE LAND COMPANY

STATEMENT OF UNIFORMITY AND STABILITY
FOR DP 422 B/RR

DP 422 B/RR has been observed over several generations and appears to be uniform and stable. Less than 2% of the plants do not contain the gene insertion 1445 which imparts resistance to the herbicide Roundup. Less than 2% of the plants do not contain the gene insertion 531 of construct PV-GHBK04 of *Bacillus thuringiensis* var. *kurstaki* pesticide which imparts resistance to several Lepidopteran insects.
EXHIBIT B
DELTA AND PINE LAND COMPANY'S APPLICATION FOR DP 422 B/RR

NOVELTY STATEMENT

DP 422 B/RR is most similar to DP 20. DP 422 B/RR, however, is different and novel 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 of insertion 531 of construct PV-GHGBK04 containing a Bacillus thuringiensis var. kurstaki pesticide protein imparting resistance to Lepidopteran insects. DP 422 B/RR has fiber properties that are different than DP 20. DP 422 B/RR produced fiber with lower strength (0.5), shorter length (0.02), and lower micronaire (0.1-0.2) than DP 20. All other fiber qualities, plant type and plant map data were very similar between the three.

Coker 312 Line 531 has the following transgenic insertion.

phenotype: Lepidopteran insect resistance
constructs: PV-GHGBK04

genotype:

- promoter: CMoV - A 0.6 Kb 35S promoter region of cauliflower mosaic virus
- gene: cryIA © - FL B.t.k. - a 3.6 Kb gene encoding the full length Bacillus thuringiensis insect control protein.
- 3' non-translated region: E9 3' - the 0.7 Kb 3' non-translated region of the pea rbcS-E9 gene

selectable marker:

- promoter 35S - A 0.35 Kb 35S promoter region of cauliflower mosaic virus.
- gene: NPt II - the 0.83 Kb neomycin phosphotransferase type II gene that confers kanamycin resistance.
- 3' non-translated region: NOS 3' - from the nopaline synthase gene of Agrobacterium tumefaciens T-DNA.

LINE 1445 was developed by the MONSANTO COMPANY using Recombinant DNA techniques to introduce a resistant version of the gene EPSPS which encodes the enzyme: 5-enolpyruvylshikimate-3-phosphate synthase (EPSPS). This modified EPSPS was originally isolated from the common soil borne microorganism Agrobacterium sp. strain CP4 and confers to LINE 1445 resistance or tolerance to the herbicide glyphosate [formulation of glyphosate, N (phosphonomethyl) glycin] commercialized under the trade name ROUNDUP.
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)
Delta and Pine Land Company db/a DGP
dDelta Pine Seed

ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)
200 North Main Street  PO Box 157
Scott, MS 38772

TEMPORARY DESIGNATION  DPX 9822B/RR
VARIETY NAME  DP 422 B/RR

FOR OFFICIAL USE ONLY
PVPO NUMBER  9900291

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.


*1. SPECIES:  
XX  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
_NT. Plains  _NT. Western  _NT. Arizona  _NT San Joaquin

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

<table>
<thead>
<tr>
<th>Plant Habit:</th>
<th>Application Variety</th>
<th>Comparison Variety 1</th>
<th>Comparison Variety 2</th>
<th>Comparison Variety 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spreading, Intermediate, Compact</td>
<td>Compact</td>
<td>Compact</td>
<td>Compact</td>
<td>Compact</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Foliage:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sparse, Intermediate, Dense</td>
<td>Intermediate</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Stem Lodging:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lodging, Intermediate, Erect</td>
<td>Intermediate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fruiting Branch:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clustered, Short, Normal</td>
<td>Normal</td>
</tr>
</tbody>
</table>
**Growth:**
Determinate, Intermediate, Indeterminate

**Leaf Color:**
Greenish yellow, Light green, Medium green, Dark green

**Boll Shape:** Length less than width, Length equal to width, Length more than width

**Boll Breadth:** Broadest at base, Broadest at middle

*4. MATURITY: (50 % Open bolls; Preferred method; Describe method if different method was used.)*

Date of 50 % open bolls

*5. PLANT:

**Cm to 1st Fruiting Branch:** (from cotyledonary node)

**No. of Nodes to 1st Fruiting Branch:** (excluding cotyledonary node)

**Mature Plant Height cm:** (from cotyledonary node to terminal)

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

**Type:** Normal, Sub Okra, Okra, Super Okra

**Pubescence:** Absent, Sparse, Medium, Dense OR Trichomes/cm² (Bottom surface excluding veins)

**Nectaries:** Present or Absent

*7. STEM PUBESCENCE:

**Glabrous, Intermediate, Hairy**

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

**Leaf:**

**Stem:**

**Calyx Lobe:** (normal is absent)

*9. FLOWER:

**Petals:** Cream, Yellow

**Pollen:** Cream, Yellow

**Petal Spot:** Present, Absent
<table>
<thead>
<tr>
<th>Seed Index: (g/100 seed, fuzzy basis)</th>
<th>10.6</th>
<th>10.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lint Index: (g lint/100 seeds)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. BOLL:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lint Percent:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>_ Picked __ Pulled</td>
<td>35.7</td>
<td>36.2</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gin Turnout:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>_____ Picked _____ Stripped</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Seeds per Boll</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grams Seed Cotton per Boll</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Locules per Boll</td>
<td>4 - 5</td>
<td>4 - 5</td>
</tr>
<tr>
<td>Boll Type:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Stormproof, Storm Resistant, Open)</td>
<td>Open</td>
<td>Open</td>
</tr>
</tbody>
</table>

12. FIBER PROPERTIES:

Specify Method (HVI or other): __ HVI

* Length: (inches, 2.5% SL) ___ 1.09 ____ 1.10 ___________

* Uniformity: (%) ____ 83 ____ 83 ___________

* Strength, T1 (g/tex) ___ 26.6 ___ 26.5 ___________

* Elongation, E1 (%) ___ 11.3 ___ 11.2 ___________

* Micronaire: ___ 4.0 ___ 4.2 ___________

Finness (Source ______) ___________________________

Yarn Tenacity: (cN/tex, 27 tex) ___________________________

Yarn Strength: (lbs. 22's) ___________________________

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

_ NT__ Alternaria macrospora

_ NT__ Anthracnose

_ NT__ Ascochyta Blight

_ NT__ Bacterial Blight (Race 1)

_ NT__ Bacterial Blight (Race 2)

_ NT__ Bacterial Blight (Race ___)

_ NT__ Fusarium Wilt

_ NT__ Phymatotrichum Root Rot

_ NT__ Pythium (specify species)

_ NT__ Rhizoctonia solani

_ NT__ Southwestern Cotton Rust

_ NT__ Thielaviopsis basicola
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)

___NT___Root-Knot Nematode
___NT___Reniform Nematode

___NT___Boll Weevil
___NT___Grasshopper (specify species):

___R___Bollworm
___NT___Lygus (specify species):

___NT___Pink Bollworm

___NT___Cotton Aphid
___NT___Spider Mite (specify species):

___R___Cotton Fleahopper
___NT___Stink Bug (specify species):

___R___Cotton Leafworm
___NT___Thrips (specify species):

___R___Cutworm (specify species):

___R___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.

DP 422 B/RR has incorporated into its genome a gene which confers resistance to certain Heliothes insects and a gene which confers resistance to the herbicide Glyphosate.
**Explanation of Trials**

Replicated research trials—Replicated trials conducted by research. A variety or line was replicated 4 times within each trial. Individual plots consisted of 2 rows by 50 feet and were harvested by a modified research picker and weights recorded. Samples were taken from each plot, ginned and fiber tested using HVI. AGROBASE was used to analyze all data. Plant map data is taken during the season and summarized using the University of California “Cotton Plant Mapper” program by Dick Plant and Tom Kerby.
<table>
<thead>
<tr>
<th>Variety</th>
<th># Nodes</th>
<th>NWCB</th>
<th>50% Height</th>
<th>Total Nodes</th>
<th>Veg Nodes</th>
<th>Fruiting Branches</th>
<th>HNR</th>
<th>Bolls/Plant</th>
<th>FP1</th>
<th>FP2</th>
<th>FP2&lt;</th>
<th>Veg</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP 20</td>
<td>20.5</td>
<td>18.4</td>
<td>16-Sep</td>
<td>45.2</td>
<td>25.5</td>
<td>5.4</td>
<td>20.1</td>
<td>1.8</td>
<td>16.6</td>
<td>48.6</td>
<td>24.5</td>
<td>15.0</td>
</tr>
<tr>
<td>DP 422 B/RR</td>
<td>21.5</td>
<td>18.0</td>
<td>16-Sep</td>
<td>46.4</td>
<td>26.0</td>
<td>5.4</td>
<td>20.7</td>
<td>1.8</td>
<td>16.9</td>
<td>44.5</td>
<td>24.4</td>
<td>22.1</td>
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</tbody>
</table>
Comparison of DP 20 to DP 422 B/RR  
1998 Average Across 7 Midsouth Tests

<table>
<thead>
<tr>
<th>Variety</th>
<th>Yield #/A</th>
<th>Lint %</th>
<th>Str g/tex</th>
<th>Len</th>
<th>Mic</th>
<th>UR</th>
<th>E1</th>
<th>Plt Hgt</th>
<th>Mat</th>
<th>So</th>
<th>Fo</th>
<th>Sdwt</th>
<th>Vigor</th>
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<tbody>
<tr>
<td>DP 20</td>
<td>993</td>
<td>87</td>
<td>36.2</td>
<td>1.10</td>
<td>4.2</td>
<td>83</td>
<td>11.2</td>
<td>3.6</td>
<td>2.1</td>
<td>2.8</td>
<td>2.5</td>
<td>10.4</td>
<td>3.3</td>
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<tr>
<td>DP 422 B/RR</td>
<td>996</td>
<td>87</td>
<td>35.7</td>
<td>1.09</td>
<td>4.0</td>
<td>83</td>
<td>11.3</td>
<td>3.6</td>
<td>2.0</td>
<td>2.1</td>
<td>1.9</td>
<td>10.6</td>
<td>3.2</td>
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<tr>
<td>Mean</td>
<td>1015</td>
<td>37.2</td>
<td>27.9</td>
<td>1.11</td>
<td>4.3</td>
<td>83</td>
<td>10.4</td>
<td>4.2</td>
<td>2.3</td>
<td>2.8</td>
<td>2.0</td>
<td>10.9</td>
<td>2.9</td>
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<tr>
<td>LSD</td>
<td>36</td>
<td>0.4</td>
<td>0.4</td>
<td>0.01</td>
<td>0.1</td>
<td>0</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.2</td>
<td>0.4</td>
<td>0.5</td>
<td>0.4</td>
</tr>
<tr>
<td>CV</td>
<td>8.1</td>
<td>2.1</td>
<td>3.1</td>
<td>1.80</td>
<td>4.3</td>
<td>0.8</td>
<td>5.2</td>
<td>11.6</td>
<td>26.5</td>
<td>17.1</td>
<td>31.5</td>
<td>3.9</td>
<td>17.3</td>
</tr>
<tr>
<td>Variety</td>
<td>Seed Cotton Weight</td>
<td>Lint Percent</td>
<td>Lint Yield</td>
<td>Micronaire</td>
<td>Length</td>
<td>Uniformity</td>
<td>Strength</td>
<td>Elasticity</td>
<td>Spinning Index</td>
<td>Short Fiber Index</td>
<td>Count Strength</td>
<td>Color Grade</td>
<td>Yellowness</td>
</tr>
<tr>
<td>--------------</td>
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<td>---------------</td>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>DELTAPINE 20</td>
<td>3893</td>
<td>0.3693</td>
<td>1351</td>
<td>4.5</td>
<td>1.15</td>
<td>83.6</td>
<td>26.1</td>
<td>10.3</td>
<td>53.1</td>
<td>1.83</td>
<td>2232</td>
<td>41.9</td>
<td>6.65</td>
</tr>
<tr>
<td>DP 422 B/R</td>
<td>3729</td>
<td>0.3573</td>
<td>1251</td>
<td>4.5</td>
<td>1.15</td>
<td>83.6</td>
<td>26.4</td>
<td>10.3</td>
<td>54.0</td>
<td>2.14</td>
<td>2252</td>
<td>37.7</td>
<td>7.18</td>
</tr>
</tbody>
</table>
EXHIBIT E

DELTA AND PINE LAND COMPANY'S APPLICATION FOR
DP 422 B/RR

DP 422 B/RR originated from crosses made by employees of the Research Department of Delta and Pine Land Company (D&PL). Work product of these employees is the property of D&PL. D&PL has assigned all of its rights as owner of DP 422 B/RR to its wholly owned subsidiary, D&PL Technology Holding Corp.

DP 422 B/RR contains two proprietary genes, patented by the Monsanto Company and licensed to D&PL. One gene encodes a protein providing tolerance to the herbicide glyphosate, and the other encodes an insect toxin, both in cotton cultivars.

D&P Technology Holding Corporation is now owner—see assignment. AAA 29 May 2002