THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

VERTAL Genetics Corporation

Hereby, 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.)

CORN, FIELD

'MF11138'

In testifying hereof, I have hereto 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 March, in the year two thousand three.

[Signature]

Commissioner

[Signature]

Secretary of Agriculture

[Signature]

Commissioner

Plant Variety Protection Office

Agricultural Marketing Service
APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

1. NAME OF APPLICANT (It is to appear on the Certificate)
   DEKALB Genetics Corporation

4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)
   3100 Sycamore Road
   DeKalb, IL 60115

7. GENUS AND SPECIES NAME
   Zea Mays
   Gramineae

9. CROP KIND NAME (Common Name)
   Corn

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (Common Name)
    Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
    Delaware

12. DATE OF INCORPORATION
    June 15, 1988

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVES, IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
    Dr. Tim Kain, Patent Scientist
    Monsanto Company
    3100 Sycamore Road
    DeKalb IL 60115
    Ph. 815-758-9281 Fax 815-758-4106
    tkain@monsanto.com

16. 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 Applicant's Ownership
   f. Voucher Sample (2,500 viable untreated seeds), for tuber propagated varieties verification that tissue culture will be deposited and maintained in an approved public repository
   g. Filing and Examination Fee ($245.00), made payable to "Treasurer of the United States" (Mail to PVPO)

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 823(a) of the Plant Variety Protection Act)
   ☑ YES ☐ NO ☐ NO ☒ YES (see Item 19, go to Item 20)

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
   ☑ YES ☐ NO

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
    ☑ YES ☐ NO (If "YES", give names of countries and dates)
    U.S. February 1998

21. The applicant declares 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 applicant is (are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believes 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.

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

   SIGNATURE OF APPLICANT (Owner(s))
   R. Mark Lawson

   NAME (Please print or type)

   CAPACITY OR TITLE
   Director Research

   DATE 5/27/98

   SIGNATURE OF APPLICANT (Owner(s))
   NAME (Please print or type)

   CAPACITY OR TITLE

   DATE

STD-470 (R3-96) (Previous editions are to be destroyed)
EXHIBIT A

Origin and Breeding History
MF1113B

MF1113B was selected for long ear length, greater testweight, better silking, and greater combining ability.

Summer 1988 The inbred line LH132 (a Holden’s Foundation Seeds, Inc. inbred) was crossed to 8F036, a proprietary DEKALB Genetics Corporation inbred (nursery book row number 2090).

Winter 1988 8F036 is derived from public line B73.

Winter 1988 S0 was grown (nursery book row number 73).

Summer 1989 S1 was grown (nursery book row numbers G541-G550).

Summer 1991 S2 was grown ear-to-row (nursery book row numbers 4575-4578).

Winter 1991 S2 was grown ear-to-row (nursery book row number 1501).

Summer 1993 S3 was grown ear-to-row (nursery book row numbers 3584-3587).

Winter 1993 S4 was grown ear-to-row and designated corn inbred MF1113B (nursery book row numbers 1204-1206).

Statement of Stability and Uniformity

Corn inbred MF1113B was coded in 1993 and has been reproduced and judged stable for the past four (4) years by self pollination. Inbred MF1113B is uniform for all traits observed.

Statement of Variants

MF1113B shows no variants other than what would normally be expected due to environment or that would occur for almost any character during the course of repeated sexual reproduction.
EXHIBIT B

Statement of Distinctness

DEKALB Genetics Corporation believes that MF1113B is most similar to inbred WDDQ1, a proprietary inbred of DEKALB Genetics Corporation.

MF1113B and WDDQ1 differ most significantly for the following traits:

Qualitative Data for MF1113B vs. WDDQ1

<table>
<thead>
<tr>
<th>TRAIT</th>
<th>MF1113B</th>
<th>WDDQ1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ear Position</td>
<td>Pendant</td>
<td>Upright</td>
</tr>
<tr>
<td>Cob Color</td>
<td>Pink</td>
<td>Red</td>
</tr>
<tr>
<td></td>
<td>5 R 6/6</td>
<td>5 R 3/8</td>
</tr>
<tr>
<td>Glume Color</td>
<td>Red</td>
<td>Green</td>
</tr>
<tr>
<td></td>
<td>2.5 R 5/8</td>
<td>5 GY 4/8</td>
</tr>
</tbody>
</table>

Isozyme Profile Data for MF1113B vs. WDDQ1

<table>
<thead>
<tr>
<th>LOCUS</th>
<th>ISOZYME</th>
<th>ALLELES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MF1113B</td>
<td>WDDQ1</td>
</tr>
<tr>
<td>Acph-1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Adh-1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Cat-3</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Got-1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Got-2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Got-3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Idh-1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Idh-2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Mdh-1</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Mdh-2</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Mdh-3</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Mdh-4</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Mdh-5</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Pgm-1</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Pgm-2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>6-Pgd-1</td>
<td>3.8</td>
<td>3.8</td>
</tr>
<tr>
<td>6-Pgd-2</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Phi-1</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

MF1113B differs from WDDQ1 at the Got-2 locus
United States Department of Agriculture, Agricultural Marketing Service
Science Division, Plant Variety Protection Office
National Agricultural Library Building, Room 500
Beltsville, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY
CORN (Zea mays L.)

<table>
<thead>
<tr>
<th>Name of Applicant(s)</th>
<th>DEKALB Genetics Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variety Seed Source</td>
<td></td>
</tr>
<tr>
<td>Variety Name or Temporary Designation</td>
<td>MF113B</td>
</tr>
</tbody>
</table>

Address (Street & No., or R.F.D. No., City, State, Zip Code and Country)
3100 Sycamore Road, DeKalb, IL, 60115, U.S.A.

Place the appropriate number that describes the varietal characters typical of this inbred variety in the spaces below. Right justify whole numbers by adding leading zeroes if necessary. Completeness should be striven for to establish an adequate variety description. Traits designated by a "*" are considered necessary for an adequate variety description and must be completed.

COLOR CHOICES (Use in conjunction with Munsell color code to describe all color choices; describe #25 and #26 in Comments section):
- 01=Light Green
- 02=Medium Green
- 03=Dark Green
- 04=Very Dark Green
- 05=Green-Yellow
- 06=Pale Yellow
- 07=Yellow
- 08=Yellow-Orange
- 09=Salmon
- 10=Pink-Orange
- 11=Pink
- 12=Light Red
- 13=Cherry Red
- 14=Red
- 15=Red & White
- 16=Pale Purple
- 17=Purple
- 18=Colorless
- 19=White
- 20=White Capped
- 21=Buff
- 22=Tan
- 23=Brown
- 24=Bronze
- 25=Variegated (Describe)
- 26=Other (Describe)

STANDARD INBRED CHOICES (Use the most similar (in background and maturity) of these to make comparisons based on grow-out trial data):
- Yellow Dent Families:
  - Family: B14, B37, B73, C103, CH43, WF9
  - Members: CM105, A632, B64, B69, BW17, BW13, NC268, Mo17, Va102, Va35, A692

- Yellow Dent (Unrelated):
  - Family: Co109, ND246

- Sweet Corn:
  - Family: C13, Iowa5125, F39, 2132

- Popcorn:
  - Family: SG1533, 4722, HP301, HP7211

- White Dent:
  - Family: CI66, H105, Ky228

- Pipecorn:
  - Family: Mo15W, Mo16W, Mo24W

1. TYPE: (describe intermediate types in Comments section)
   - 2 = Sweet
   - 3 = Dent
   - 4 = Flint
   - 5 = Flour
   - 6 = Ornamental
   - 7 = Pipecorn

   Standard Inbred Name: B73
   Standard Seed Source: NCRPI02

2. REGION WHERE DEVELOPED IN THE U.S.A.:
   - 2 = Northwest
   - 3 = Northcentral
   - 4 = Northeast
   - 5 = Southeast
   - 6 = Southcentral

3. MATURITY (In Region Best Adaptability; show Heat Unit formula in "Comments" section):
   - DAYS
   - HEAT UNITS
   - 0 7 0
   - 0 7 6
   - From emergence to 50% of plants in silk
   - From emergence to 50% of plants in pollen
   - 0 6 9
   - 0 10% to 90% pollen shed
   - From 50% silk to optimum edible quality
   - From 50% silk to harvest at 25% moisture
   - 0 5 8
   - 1 2 6 7.5

4. PLANT:
   - Standard Deviation
   - Sample Size
   - Standard Deviation
   - Sample Size
   - 1 9 8.6
   - 0 7 1.7
   - 0 1 3.9
   - 1.556
   - 2.051
   - 1.828
   - 0.495
   - 0 1 1 0
   - 20
   - 20
   - 20
   - 20
   - 2 3 1.4
   - 0 9 6.2
   - 0 1 4.6
   - 0 0 1.2
   - 12.966
   - 9.285
   - 1.790
   - 0.195
   - 140
   - 140
   - 140
   - 140
   - 140

Application Variety Data

Page 1

Standard Inbred Data
### Application Variety Data

<table>
<thead>
<tr>
<th>Application Variety Data</th>
<th>Page 2</th>
<th>Standard Inbred Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5. LEAF:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* 0 0 7.9 cm Width of Ear Node Leaf</td>
<td>0.212</td>
<td>20 0 0 9.2 0.619 140</td>
</tr>
<tr>
<td>* 0 7 2.8 cm Length of Ear Node Leaf</td>
<td>10.607</td>
<td>20 0 7 9.6 2.756 140</td>
</tr>
<tr>
<td>* 5. 9 Number of leaves above top ear</td>
<td>0.141</td>
<td>10 5.6 0.483 70</td>
</tr>
<tr>
<td>3 3.7 degrees Leaf Angle (measure from 2nd leaf above ear at anthesis to stalk above leaf)</td>
<td>5.233</td>
<td>20 2 3.7 6.631 140</td>
</tr>
<tr>
<td>* 0 1 Leaf Color (Munsell code 5 GY 5/10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Leaf Sheath Pubescence (Rate on scale from 1=none to 9=peach fuzz)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Marginal Waves (Rate on scale from 1=none to 9=many)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Longitudinal Creases (Rate on scale from 1=none to 9=many)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6. TASSEL:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* 6. 0 Number of Primary Lateral Branches</td>
<td>0.354</td>
<td>20 8.1 1.698 140</td>
</tr>
<tr>
<td>2 7.5 Branch Angle from Central Spike</td>
<td>2.192</td>
<td>20 2 4.0 5.380 140</td>
</tr>
<tr>
<td>* 4. 0.1 cm Tassel Length (from top leaf collar to tassel tip)</td>
<td>0.919</td>
<td>20 3 6.9 5.099 140</td>
</tr>
<tr>
<td>5. 0 Pollen Shed (Rate on scale from 0=male sterile to 9=heavy shed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 1 Anther Color (Munsell code 2.5 R 7/6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 4 Glume Color (Munsell code 2.5 R 5/8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Bar Glumes (Glume Bands): 1=Absent 2=Present</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 7a. EAR (Unhusked Data):

<table>
<thead>
<tr>
<th>Application Variety Data</th>
<th>Page 2</th>
<th>Standard Inbred Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>* 0 5 Silk Color (3 days after emergence) (Munsell code 2.5 GY 8/6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 2 Fresh Husk Color (25 days after 50% silking) (Munsell code 5 GY 4/8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 1 Dry Husk Color (65 days after 50% Silking) (Munsell code 2.5 Y 8/4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* 3 Position of Ear at Dry Husk Stage: 1=Upright 2=Horizontal 3=Pendent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Husk Tightness (Rate on scale from 1=very loose to 9=very tight)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Husk Extension (at harvest): 1=Short (ears exposed) 2=Medium (&lt;8 cm) 3=Long (8-10 cm beyond ear tip) 4=Very Long (&gt;10 cm)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 7b. EAR (Husked Ear Data):

<table>
<thead>
<tr>
<th>Application Variety Data</th>
<th>Page 2</th>
<th>Standard Inbred Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>* 1 8.1 cm Ear Length</td>
<td>1.273</td>
<td>10 1 3.6 0.680 70</td>
</tr>
<tr>
<td>* 3 8.0 mm Ear Diameter at mid-point</td>
<td>1.414</td>
<td>10 4 3.5 1.193 70</td>
</tr>
<tr>
<td>1 0 8.0 gm Ear Weight</td>
<td>17.395</td>
<td>20 1 2.5 6 22.451 140</td>
</tr>
<tr>
<td>* 1 5.2 Number of Kernel Rows</td>
<td>0.000</td>
<td>10 1 7.3 0.743 70</td>
</tr>
<tr>
<td>2 Kernel Rows: 1=Indistinct 2=Distinct</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Row Alignment: 1=Straight 2=Slightly Curved 3=Spiral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 8.2 cm Shank Length</td>
<td>1.414</td>
<td>20 0 8.1 1.361 140</td>
</tr>
<tr>
<td>2 Ear Taper: 1=Slight 2=Average 3=Extreme</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Note:
Use chart on first page to choose color codes for color traits.
### Application Variety Data

<table>
<thead>
<tr>
<th>Kernel (Dried)</th>
<th>Standard Deviation</th>
<th>Sample Size</th>
<th>Standard Inbred Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 mm Kernel Length</td>
<td>0.566</td>
<td>10</td>
<td>1.0</td>
</tr>
<tr>
<td>0.0 mm Kernel Width</td>
<td>0.000</td>
<td>10</td>
<td>0.621</td>
</tr>
<tr>
<td>3.4 mm Kernel Thickness</td>
<td>0.000</td>
<td>10</td>
<td>0.631</td>
</tr>
<tr>
<td>4.0 mm Round Kernels (Shape Grade)</td>
<td>4.845</td>
<td>500g</td>
<td>3.765</td>
</tr>
</tbody>
</table>

1. Aleurone Color Pattern: 1=Homozygous 2=Segregating

(*) 1.9 Aleurone Color (Munsell code Lighter Than 2.5 Y 9/2)

* 0.7 Hard Endosperm Color (Munsell code 2.5 Y 9/10)

* 0.3 Endosperm Type: 1=Sweet (su) 2=Extra Sweet (sh2) 3=Normal Starch
4=High Amylose Starch 5=Waxy Starch 6=High Protein 7=High Lysine
8=Super Sweet (se) 9=High Oil 10=Other

1.92 gm Weight per 100 Kernels (un-sized sample) 1.945 200 seeds

2.4.4 3.170 1400 seeds

### 9. COB:

<table>
<thead>
<tr>
<th>Standard Deviation</th>
<th>Sample Size</th>
<th>Standard Inbred Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0 mm Cob Diameter at mid-point</td>
<td>0.000</td>
<td>10</td>
</tr>
<tr>
<td>1 Cob Color (Munsell code 5 R 6/6)</td>
<td>1.369</td>
<td>70</td>
</tr>
</tbody>
</table>

10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant)); leave blank if not tested; leave Race or Strain Options blank if polygenic:

#### A. Leaf Blights, Wilts, and Local Infection Diseases

- Anthracnose Leaf Blight (Colletotrichum graminicola) 7
- Common Rust (Puccinia sorghi) 5
- Common Smut (Ustilago maydis) 7
- Eyespot (Rabatiella zeae) 7
- Goss's Wilt (Clavibacter michiganense spp. nebraskense) 7
- Gray Leaf Spot (Cercospora zeae-maydis) 2
- Helminthosporium Leaf Spot (Bipolaris zeicola) Race 2 8 Race 2
- Northern Leaf Blight (Bipolaris turcicum) Race 1 5 Race 1
- Southern Leaf Blight (Bipolaris maydis) Race 0 3 Race 0
- Southern Rust (Puccinia polysora) 3

#### B. Systemic Diseases

- Corn Lethal Necrosis (MCMV and MDMV) 3
- Head Smut (Sphaecolotheca reiliana) 7
- Maize Chlorotic Dwarf Virus (MCMV) 7
- Maize Chlorotic Mottle Virus (MCMV) 7
- Maize Dwarf Mosaic Virus (MDMV) Strain 7
- Sorghum Downy Mildew of Corn (Peronosclerospora sorghi) 7
- Other (Specify) 7

#### C. Stalk Rots

- Anthracnose Stalk Rot (Colletotrichum graminicola) 7
- Diplodia Stalk Rot (Stenocarpella maydis) 7
- Fusarium Stalk Rot (Fusarium moniliforme) 7
- Gibberella Stalk Rot (Gibberella zeae) 7
- Other (Specify) 7

#### D. Ear and Kernel Rots

- Aspergillus Ear and Kernel Rot (Aspergillus flavus) 7
- Bipodia Ear Rot (Stenocarpella maydis) 7
- Fusarium Ear and Kernel Rot (Fusarium moniliforme) 7
- Gibberella Ear Rot (Gibberella zeae) 7
- Other (Specify) 7

### Note: Use chart on first page to choose color codes for color traits.
11. INSECT RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant): leave blank if not tested):

<table>
<thead>
<tr>
<th>Trait</th>
<th>Standard Deviation</th>
<th>Sample Size</th>
<th>Standard Deviation</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks Grass Mite (Oligonychus pratensis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corn Earworm (Helicozepa zeae)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Leaf Feeding:</td>
<td></td>
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</tr>
<tr>
<td>Silk Feeding:</td>
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<td></td>
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</tr>
<tr>
<td>Ear Damage</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Corn Leaf Aphid (Rhopalosiphum maidis)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Corn Sap Beetle (Carpophilus dimidiatus)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European Corn Borer (Ostrinia nubilalis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 1st Generation (Typically Whorl Leaf Feeding)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 2nd Generation (Typically Leaf Sheath-Collar Feeding)</td>
<td>4</td>
<td></td>
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<tr>
<td>Stalk Tunneling:</td>
<td></td>
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<tr>
<td>Fall Armyworm (Spodoptera frugiperda)</td>
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<tr>
<td>Leaf-Feeding:</td>
<td></td>
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<tr>
<td>Silk-Feeding:</td>
<td></td>
<td></td>
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<tr>
<td>Maize Weevil (Sitophilus zeamais)</td>
<td></td>
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<tr>
<td>Northern Rootworm (Diabrotica barberi)</td>
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<tr>
<td>Southern Rootworm (Diabrotica undecimpunctata)</td>
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<tr>
<td>Southwestern Corn Borer (Diatraea grandiosella)</td>
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<td></td>
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<tr>
<td>Leaf Feeding:</td>
<td></td>
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<tr>
<td>Stalk Tunneling:</td>
<td></td>
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<tr>
<td>Two-spotted Spider Mite (Tetranychus urticae)</td>
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<tr>
<td>Western Rootworm (Diabrotica virgifera virgifera)</td>
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<tr>
<td>Other (Specify)</td>
<td></td>
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</tr>
</tbody>
</table>

12. AGRONOMIC TRAITS:

<table>
<thead>
<tr>
<th>Trait</th>
<th>Standard Deviation</th>
<th>Sample Size</th>
<th>Standard Deviation</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Stay Green (at 65 days after anthesis)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 0.0 % Dropped Ears (at 65 days after anthesis)</td>
<td>0 0.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 0.0 % Pre-anthesis Brittle Snapping</td>
<td>0 0.0</td>
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<tr>
<td>0 0.0 % Pre-anthesis Root Lodging</td>
<td>0 0.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 2.0 % Post-anthesis Root Lodging (at 65 days after anthesis)</td>
<td>0 1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 9 5 8. 7 Kg/ha Yield of Inbred Per Se (at 12-13% grain moisture)</td>
<td>4 0 9 2.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. MOLECULAR MARKERS: (0=data unavailable; 1=data available but not supplied; 2=data supplied)

- Isozymes
- RFLP's
- RAPD's

REFERENCES:


Munsell Color Chart for Plant Tissues. Macbeth, P.O. Box 230. Newburgh, N.Y. 12551-0230

The Mutants of Maize. 1968. Crop Science Society of America. Madison, WI.


COMMENTS (eg. state how heat units were calculated, standard inbred seed source, and/or where data was collected. Continue in Exhibit D):

Heat Unit Calculation: $\text{GDU} = \frac{\text{Daily Max Temp} (<86^\circ\text{F}) + \text{Daily Min Temp} (>50^\circ\text{F})}{2} - 50^\circ\text{F}$

Page 2, Section 6, Tassel: Anther Color, Tan (22) - Determined as Green-Yellow with anthocyanin present.

Page 2, Section 7a, Ear: Silk Color, Tan (22) - Determined as Green-Yellow with anthocyanin present.
## EXHIBIT E
### STATEMENT OF THE BASIS OF OWNERSHIP

<table>
<thead>
<tr>
<th>1. NAME OF APPLICANT/S</th>
<th>DEKALB Genetics Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER</td>
<td>MF1113B</td>
</tr>
</tbody>
</table>
| 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) | 3100 Sycamore Road
DeKalb, IL 60115 |
| 5. TELEPHONE (include area code) | (815) 758-3461 |
| 6. FAX (include area code) | (815) 758-4106 |
| 7. PVPO NUMBER | 0800306 |
| 8. Does the applicant own all rights to the variety? Mark an “X” in appropriate block. If no, please explain. | ☐ YES ☐ NO |

9. Is the applicant (individual or company) a U.S. national or 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 the following:

   a. If 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 original rights to variety were owned by a company, is 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 reverse for extra space):

    MF1113B was originated and developed by a breeder employed by DEKALB Genetics Corporation. By agreement between DEKALB Genetics Corporation and the breeder, all rights to any invention, discovery, or development are assigned to DEKALB Genetics Corporation. No rights to such invention, discovery, or development are retained by the breeder.

**PLEASE NOTE:**

Plant variety protection can be afforded only to owners (not licensees) who meet one of 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 final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

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