TO ALL TO WHOM THESE PRESENTS SHALL COME:

Syngenta Seeds, Inc.

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 hereto 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 name(s) indicated in the said copy, and WHEREAS, upon our 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 purposes, 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. 2311 et seq.)

SOYBEAN
'S 62-62'

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 June, in the year two thousand two.

[Signature]
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

[Signature]
Secretary of Agriculture
# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

<table>
<thead>
<tr>
<th>1. NAME OF APPLICANT(S) (as it is to appear on the Certificate)</th>
<th>2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER</th>
<th>3. VARIETY NAME</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)</th>
<th>5. TELEPHONE (Include area code)</th>
<th>6. FAX (Include area code)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P. O. Box 995; 5th North 12th Avenue</td>
<td>612-593-7333</td>
<td></td>
</tr>
<tr>
<td>Minneapolis, MN 55440</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington, IA 52353 (bt. 2/3/02)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. GENUS AND SPECIES NAME</th>
<th>8. FAMILY NAME (Botanical)</th>
<th>9. CROP KIND NAME (Common name)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine max</td>
<td>Leguminosae</td>
<td>Soybean</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10. IF THE APPLICANT NAMED IS NOT A &quot;PERSON,&quot; GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (Common name)</th>
<th>11. IF INCORPORATED, GIVE STATE OF INCORPORATION</th>
<th>12. DATE OF INCORPORATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syngenta Seeds Inc.</td>
<td>Delaware</td>
<td>1976</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS</th>
<th>14. TELEPHONE (Include area code)</th>
<th>15. FAX (Include area code)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P. O. Box 995; 5th North 12th Avenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington, IA 52353-0949</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)</th>
<th>17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 635(a) of the Plant Variety Protection Act?)</th>
<th>18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED TO NUMBER OF GENERATIONS?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ YES ☐ NO</td>
<td>☐ YES ☐ NO</td>
<td>☐ YES ☐ NO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ YES ☐ NO</td>
<td></td>
</tr>
</tbody>
</table>

| 21. The applicant(s) 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 applicant(s) declare that the variety is new, distinct, uniform, and stable as required in Section 4, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. |

| 22. Application(s) informed that false representation herein can jeopardize protection and result in penalties. |

<table>
<thead>
<tr>
<th>SIGNATURE OF APPLICANT (Owner(s))</th>
<th>SIGNATURE OF APPLICANT (Owner(s))</th>
</tr>
</thead>
<tbody>
<tr>
<td>John C. Thorne</td>
<td>John C. Thorne</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME (Please print or type)</th>
<th>NAME (Please print or type)</th>
</tr>
</thead>
<tbody>
<tr>
<td>John C. Thorne</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAPACITY OR TITLE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director of Self Pollinated Crops</td>
<td>8-12-96</td>
</tr>
</tbody>
</table>
EXHIBIT A

Origin and Breeding History of S 62-62

In 1987 the Coker breeding group at Bay, AR made the cross ‘V78-184’ x 'H841635' from which the variety S 62-62 is derived. V78-184 was later released as the variety ‘Hutcheson’, H841635 was a breeding line derived from the cross ‘Coker 237’ x 'Bedford’.

The F1 was advanced to F2 in the field at Bay during the summer of 1988, there were five F1 plants which were harvested in bulk. The F2 and F3 generations were advanced during two consecutive plantings in Hawaii, during the winter of 1988/89, and using a modified single seed descent. The F4 population was grown in the field at Bay during the summer of 1989, and single plants were taken at harvest. These were screened with race 3 of cyst nematode (Heterodera glycines), during the winter of 1989/90, and resistant plants were grown as F5 progeny rows in the field at Bay during the summer of 1990. One row, #20,740 was selected, harvested in bulk and designated as B020740. From 1991-92, B020740 was tested in yield trials at locations throughout the mid-south and southeastern United States. During this period the line was characterized as possessing white flowers, tawny pubescence, tan pod walls and seed which carries a dull seed coat and a hilum with a black pigmentation. It was further established that B020740 was susceptible to Phytophthora rot, but tolerant under field conditions, and resistant to stem canker caused by Diaporthe phaseolorum var. meridionalis. B020740 was further evaluated in advanced trials from 1993-95, across a wide range of environments. During 1995 it was tested under the experimental designation X9562, and based on its yield superiority and disease resistance, it was released in 1996 as S 62-62.

During the winter of 1992-93, 400 seeds of S 62-62 were planted in two rows in Hawaii. Following a thorough roguing for flower and pubescence color, 200 single plants were harvested, threshed individually and their progeny returned to Bay for planting in single rows during the summer 1993. This increase was rogued carefully at flowering and maturity to remove any rows which showed segregation or off-type plants. The remaining rows were then bulk harvested to produce Pre-breeder seed. This seed was planted near Bay, AR in 1994 to produce Breeder seed, and was rogued carefully at flowering and maturity and found to be uniform.

Foundation seed of S 62-62 was produced and approved by the Arkansas State Plant Board in 1995. Varietal purity will be maintained through routine roguing or by the further use of progeny rows as required.

S 62-62 is a uniform, stable variety except that it may contain offtypes with a purple flower, gray pubescence, or seed with a brown hilum, all at a frequency of less than 1%. During the four years of testing and three years of seed increase, we have observed no other off-types except for minor environmentally induced variation in the intensity of hilum pigmentation.

(Note: variants and off-types are used as having same meaning in this case (per applicant's permission for telephone conversation on 2/10/88 pp).
EXHIBIT B

Novelty Statement for the Variety

S 62-62 is most similar to the variety S 62-66. It can be differentiated from S 62-66 on the basis of flower color and resistance to stem canker (*Diaporthe phaseolorum* var. *Meridionalis*). S 62-62 has white flowers and is resistant to stem canker, whereas S 62-66 has purple flowers and is moderately susceptible to stem canker.
**OBJECTIVE DESCRIPTION OF VARIETY**
**SOYBEAN** *(Glycine max L.)*

<table>
<thead>
<tr>
<th>NAME OF APPLICANT(S)</th>
<th>TEMPORARY DESIGNATION</th>
<th>VARIETY NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northrup King Co.</td>
<td>X9562, B020740</td>
<td>S 62-62</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code)</th>
<th>FOR OFFICIAL USE ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.O. Box 949 310 North 12th (Ret 29/28/2006) 42nd Avenue</td>
<td>PVPO NUMBER</td>
</tr>
<tr>
<td>Washington, IA 52353-0949</td>
<td>9600355</td>
</tr>
<tr>
<td>Attn: John Thorne</td>
<td></td>
</tr>
</tbody>
</table>

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g., 09).

1. **SEED SHAPE:**
   - 1 = Spherical (L/W, L/T, and T/W ratios ≤ 1.2)
   - 2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio ≤ 1.2)
   - 3 = Elongate (L/T ratio > 1.2; T/W ≤ 1.2)
   - 4 = Elongate Flattened (L/T ratio > 1.2; T/W > 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', 'Breton')
   - 2 = Shiny ('Nebsoy', 'Gasoy 17')

4. **SEED SIZE:** (Mature Seed)
   - 1 = Grams per 100 seeds

6. **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 (SP1a)
   - 2 = Type B (SP1b)

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 unfoliate 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:

3
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:

2
1 = Gray
2 = Brown (Tawny)

16. PLANT TYPES:

1
1 = Slender (‘Essex’; ‘Amsoy 71’)
3 = Bushy (‘Gnome’; ‘Govan’)
2 = Intermediate (‘Amcor’; ‘Braxton’)

17. PLANT HABIT:

1
1 = Determinate (‘Gnome’; ‘Braxton’)
3 = Indeterminate (‘Nebsoy’; ‘Improved Pelican’)
2 = Semi-Determinate (‘Will’)

18. MATURITY GROUP:

0 9
1 = 000
2 = 00
3 = 0
4 = 1
5 = II
6 = III
7 = IV
8 = V
9 = VI
10 = VII
11 = VIII
12 = IX
13 = X

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

BACTERIAL DISEASES:

2
Bacterial Pustule (Xanthomonas phaseoli var. sojensis)

0
Bacterial Blight (Pseudomonas glycinea)

2
Wildfire (Pseudomonas tabaci)

Fungal DISEASES:

1
Brown Spot (Septoria glycines)

Frogeye Leaf Spot (Cercospora sojina)

0
Race 1
0
Race 2
0
Race 3
0
Race 4
0
Race 5
1
Other (Specify)

Target Spot (Corynespora cassicola)

Downy Mildew (Peronospora trifoliorum var. manchurica)

Powdery Mildew (Microsphaera diffusa)

Brown Stem Rot (Cephalosporium gregatum)

Stem Canker (Diaporthe phaseolorum var. caulivora)
19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

1. Pod and Stem Blight (*Diaporthe phaseolorum* var. *sojae*)
1. Purple Seed Stain (*Cercospora kikuchii*)
0. Rhizoctonia Root Rot (*Rhizoctonia solani*)

Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)

1. Race 1  1. Race 2  1. Race 3  1. Race 4  0. Race 5  0. Race 6  1. Race 7
0. Race 8  0. 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*)
0. Pod Mottle (*Bean Pod Mottle Virus*)
2. Seed Mottle (*Soybean Mosaic Virus*)

NEMATODE DISEASES:

Soybean Cyst Nematode (*Heterodera glycines*)

0. Race 1  2. Race 2  2. Race 3  1. Race 4  2. Other (Specify)  1. Race 14

0. Lance Nematode (*Hoplolaimus colombus*)
1. Southern Root Knot Nematode (*Meloidogyne incognita*)
0. Northern Root Knot Nematode (*Meloidogyne hapla*)
1. Peanut Root Knot Nematode (*Meloidogyne arenaria*)
0. Reniform Nematode (*Rotylenchulus reniformis*)
0.

OTHER DISEASE NOT ON FORM (Specify):

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

2. Iron Chlorosis on Calcereous Soil  Moderately resistant
0. Other (Specify)

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

0. Mexican Bean Beetle (*Epilachna varivestis*)
0. Potato Leaf Hopper (*Empoasca fabae*)
0. Other (Specify)

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

<table>
<thead>
<tr>
<th>CHARACTER</th>
<th>NAME OF VARIETY</th>
<th>CHARACTER</th>
<th>NAME OF VARIETY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Shape</td>
<td><em>Hutcheson</em></td>
<td>Seed Coat Luster</td>
<td><em>S62–66</em></td>
</tr>
<tr>
<td>Leaf Shape</td>
<td><em>S62–66</em></td>
<td>Seed Size</td>
<td><em>COKER 686</em></td>
</tr>
<tr>
<td>Leaf Color</td>
<td><em>COKER 686</em></td>
<td>Seed Shape</td>
<td><em>RA04</em></td>
</tr>
<tr>
<td>Leaf Size</td>
<td><em>S66–90</em></td>
<td>Seedling Pigmentation</td>
<td><em>Tracy</em></td>
</tr>
</tbody>
</table>

FORM LMGS-470-57 (2-82)
<table>
<thead>
<tr>
<th>VARIETY</th>
<th>NO. OF DAYS MATURITY</th>
<th>PLANT LODGING SCORE</th>
<th>CM PLANT HEIGHT</th>
<th>LEAFLET SIZE</th>
<th>SEED CONTENT</th>
<th>SEED SIZE G/100 SEEDS</th>
<th>NO. SEEDS/POD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submitted</td>
<td>163</td>
<td>2.3</td>
<td>26</td>
<td>5.6</td>
<td>11.1</td>
<td>39.0</td>
<td>14.0</td>
</tr>
<tr>
<td>S62-66 Name of Similar Variety</td>
<td>163</td>
<td>5.5</td>
<td>28</td>
<td>6.6</td>
<td>12.4</td>
<td>38.8</td>
<td>15.0</td>
</tr>
</tbody>
</table>

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:


**EXHIBIT E**

**STATEMENT OF THE BASIS OF OWNERSHIP**

<table>
<thead>
<tr>
<th>1. NAME OF APPLICANT(S)</th>
<th>2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER</th>
<th>3. VARIETY NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syngenta Seeds, Inc.</td>
<td></td>
<td>S62-62</td>
</tr>
<tr>
<td>(Formerly Northrup King Co.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. ADDRESS (Street and No., or P.O. Box, City, State, and ZIP, and Country)</th>
<th>5. TELEPHONE (Include area code)</th>
<th>6. FAX (Include area code)</th>
<th>7. PVPO NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>510 N. 12th Ave, P.O. Box 949, Washington, IA 52353</td>
<td>319-653-2188</td>
<td>319-653-4609</td>
<td>009600355</td>
</tr>
</tbody>
</table>

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

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

10. Is the applicant the original owner? □ NO □ YES 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)? □ NO □ YES 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? □ NO □ YES If no, give name of country

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

**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 U.P.C.H. 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 U.P.C.H. 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 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 8.7 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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