

No.

8900153



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Asgrow Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED 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 *eighteen* 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 USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'Magnum'

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 31st day of January in the year of our Lord one thousand nine hundred and ninety-two.

Attest:

Kenneth E. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Edward Madison
Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE
 AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

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).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

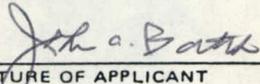
| | | | | | |
|--|--|--|---|---|--|
| 1. NAME OF APPLICANT(S) Asgrow Seed Company | | 2. TEMPORARY DESIGNATION XP-B211 | | 3. VARIETY NAME Magnum | |
| 4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) Unit 9626-190-46 Kalamazoo, MI 49001 | | 5. PHONE (Include area code) (616) 385-6605 | | FOR OFFICIAL USE ONLY PVPO NUMBER 8900153 | |
| 6. GENUS AND SPECIES NAME Phaseolus vulgaris | | 7. FAMILY NAME (Botanical) Leguminosae | | FILING DATE Apr. 11, 1989 TIME 10:30 <input checked="" type="checkbox"/> A.M. <input type="checkbox"/> P.M. | |
| 8. KIND NAME Garden Bean | | 9. DATE OF DETERMINATION September, 1986 | | AMOUNT FOR FILING \$ 1800.00 DATE Apr. 4, 1989 | |
| 10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation | | | | FEES RECEIVED AMOUNT FOR CERTIFICATE \$ 200. ⁰⁰ DATE December 30, 1991 | |
| 11. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware | | | | 12. DATE OF INCORPORATION March 22, 1968 | |
| 13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS John A. Batcha Kathy Ward AAA Asgrow Seed Company 27 Jan 1992 Unit 9620-190-46 Kalamazoo, MI 49001 PHONE (Include area code): (616) 385-6605 | | | | | |
| 14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.) b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement. c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.) d. <input type="checkbox"/> Exhibit D, Additional Description of Variety. e. <input checked="" type="checkbox"/> Exhibit E, Statement of the Basis of Applicant's Ownership. | | | | | |
| 15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) <input type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input checked="" type="checkbox"/> No | | | | | |
| 16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | 17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input type="checkbox"/> Certified | | |
| 18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.? <input type="checkbox"/> Yes (If "Yes," give date) <input checked="" type="checkbox"/> No | | | | | |
| 19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES? Offered for sale U.S. August 2, 1988 Offered for sale outside U.S. in 1988 also. <input checked="" type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input type="checkbox"/> No | | | | | |
| 20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, 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  | | | | DATE April 1, 1989 | |
| SIGNATURE OF APPLICANT | | | | DATE | |

EXHIBIT A

Origin and Breeding History for XP-B211 Garden Bean

XP-B211 was developed at Asgrow's Western Breeding Station (WBS), Twin Falls, Idaho, by backcrossing colored seed and resistance to bean common mosaic virus (BCMV) into the bean variety Greencrop:

3-2-83 Planted Greencrop and Atlantic, a colored-seed, BCMV resistant variety, in the greenhouse at WBS. Crosses made.

5-26-83 Planted BC₀ and Greencrop in the greenhouse at WBS. Crosses made.

8-15-83 Planted BC₁ and Greencrop in the greenhouse at WBS. Crosses made with colored-seed, BCMV resistant, segregants.

11-7-83 Planted BC₂ and Greencrop in the greenhouse at WBS. Crosses made with colored-seed, BCMV resistant, segregants.

2-10-84 Planted BC₃ and Greencrop in the greenhouse at WBS. Crosses made with colored-seed, BCMV resistant, segregants.

5-8-84 Planted BC₄ and Greencrop in the greenhouse at WBS. Crosses made with colored-seed, BCMV resistant, segregants.

8-3-84 Planted BC₅ and Greencrop in the greenhouse at WBS. Crosses made with colored-seed, BCMV resistant, segregants.

2-5-85 Planted BC₆ the greenhouse at WBS. Allowed to self-pollinate; seed saved from colored-seed, BCMV resistant segregants.

6-4-85 Planted BC₆S₁ as progeny rows in the field at WBS. Made selections from 2 lines that appeared to be uniform for colored seed and resistance to BCMV.

10-9-85 Planted BC₆S₂ in the greenhouse at WBS. Saved seed of individual plants from lines uniform for colored seed and resistance to BCMV.

1-29-86 Planted BC₆S₃ in the greenhouse at WBS. Harvested plants as individuals.

5-27-86 Planted BC₇S₄ progenies in the field at WBS under numbers from R866392 to R866422. Observations during the growing season indicated these lines were uniform and breeding true. Seed from them was bulked together, and all subsequent increases of XP-B211 trace to these progenies.

5-22-87 Planted bulk of progenies from R866392 to R866422. Observations during the growing season confirmed XP-B211 was uniform and breeding true.

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Observations indicate XP-B211 is uniform and stable within commercially acceptable limits. As is true with other garden bean varieties, a small percentage of variants or offtypes can occur within commercially acceptable limits for almost any characteristic during the course of repeated multiplications.

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EXHIBIT B

Novelty Statement Concerning XP-B211

XP-B211 is flat-pod fresh market variety developed by backcrossing colored seed and resistance to bean common mosaic virus (BCMV) into the variety Greencrop.

To our knowledge the commercial variety that most clearly resembles B211 is Greencrop. The comparative characteristics that most clearly distinguish the two include, but may not be limited to, resistance to BCMV and seed color: Greencrop has white seed and is susceptible to BCMV; B211 has brown seed and is resistant to BCMV.

U.S. DEPARTMENT OF AGRICULTURE
 AGRICULTURAL MARKETING SERVICE
 LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
 BELTSVILLE, MARYLAND 20705

EXHIBIT C
 (Bean)

OBJECTIVE DESCRIPTION OF VARIETY
 BEAN (*Phaseolus vulgaris* L.)

| | |
|--|---|
| NAME OF APPLICANT(S) Asgrow Seed Company | FOR OFFICIAL USE ONLY |
| ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) Unit 9620-190-46 Kalamazoo, MI 49001 | PVPO NUMBER 8900153 |
| | VARIETY NAME OR TEMPORARY DESIGNATION XP-B211/Magnum |

Place numbers in the boxes (e.g.) for the characters that best describe this variety. Measured data should be for SPACED PLANTS. Ranges may also be given. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____ . The location of test area is Twin Falls, Idaho . Please answer questions appropriate for your variety if the information is available.

1. TYPE:

1 = Field (dry-edible) 2 = Garden

2. MARKET MATURITY:

Days to edible pods Days to green shells

Days to dry seeds

Heat units to edible pods Heat units to green shells

Heat units to dry seeds

No. days earlier than }
 Same as .. }
 No. days later than }

1 = Tendercrop 2 = Kentucky Wonder
 3 = Kinghorn Wax 4 = White Kidney
 5 = Michelite 62 6 = Dwarf Horticultural
 7 = Bush Blue Lake 290 8 = Other (specify below)
Greencrop

3. PLANT:

1 = Determinate 2 = Indeterminate

cm height

cm shorter than }
 Same as .. } comparison variety from above

cm taller than }

cm spread Number primary branches near base

cm narrower than }
 width same as ... } comparison variety from above

cm wider than }

Main stalk: 1 = brittle 2 = wirey Branching habit:
 1 = compact 2 = open

1 = stout 2 = thin

5

3. PLANT: (Cont'd)

3 Pod position: 1 = low 2 = high 3 = scattered

3 Bush form (illustrated below):



1 = spherical bush form

2 = stem bush form

3 = wide bush form

4 = high bush form

5 = other (specify) _____

4. LEAVES:

2 1 = smooth 2 = wrinkled

1 1 = dull 2 = glossy

2 Size: 1 = small (Earliwax) 2 = medium 3 = large (Tendercrop)

2 Color: 1 = light green (as light or lighter than Bountiful) 2 = medium green
3 = dark green (as dark or darker than Bush Blue Lake 290)

5. FLOWERS:

4 Color: 1 = white 2 = cream 3 = pink 4 = lilac 5 = purple .6 = Other (specify) _____

4 5 Days to 50% bloom

6. FRESH PODS: (Edible maturity, average for 20 pods)

2 Exterior color: 1 = light green (as light or lighter than Bountiful)
2 = medium green
3 = dark green (as dark or darker than Bush Blue Lake 290)
4 = light yellow (Brittlewax)
5 = golden yellow (Cherokee Wax)
6 = green-red variegated (Horticultural)
7 = other (specify) _____

% Sieve size distribution at optimum maturity for non-flat pods

Note:

- 1 = 4.76 mm to 5.76 mm
- 2 = 5.76 mm to 7.34 mm
- 3 = 7.34 mm to 8.34 mm
- 4 = 8.34 mm to 9.53 mm
- 5 = 9.53 mm to 10.72 mm
- 6 = 10.72 mm or larger

| | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---|---|---|---|---|
| | | | | | | |

3 sieve cm length mm width mm thickness

4 sieve cm length mm width mm thickness

5 sieve cm length mm width mm thickness

6 sieve cm length mm width mm thickness

6. FRESH PODS: (Cont'd)

- 1 Cross section pod shape: 1 = flat 2 = oval 3 = round 4 = heart
- 2 Creaseback: 1 = present 2 = absent
- 3 Pubescence: 1 = none 2 = sparse 3 = considerable
- 2 Spur: 1 = straight 2 = slightly curved 3 = curved
- 2 Constrictions: 1 = none 2 = slight 3 = deep
- 1 Pod flesh: 1 = light 2 = medium 3 = dark
- 1 7 mm spur length
- 3 Fiber: 1 = none 2 = sparse 3 = considerable
- 6 Number of seeds per pod
- 1 Surface: 1 = smooth 2 = rough
- 2 Suture string: 1 = present 2 = absent
- 2 Seed development (Snap Bean): 1 = slow 2 = medium 3 = fast
- 1 Machine harvest: 1 = adapted 2 = not adapted
- 1 Pod flavor: (1) Standard (Tendercrop)
 (2) Mild Blue Lake (BBL 274)
 (3) Strong Blue Lake (Pole FM1)
 (4) Mild Romano (Roma)
 (5) Strong Romano (Pole Romano)
 (6) Other (specify) _____

7. SEED COAT COLOR:

- 2 1 = Monochrome 2 = Polychrome 1 1 = shiny 2 = dull
- 4 Primary color: } 1 = white 2 = yellow 3 = buff 4 = tan
- 10 Secondary color: } 5 = brown 6 = pink 7 = red 8 = purple
 9 = blue 10 = black 11 = other (specify) _____
- Color Pattern: 1 = none 2 = splashed 3 = mottled 4 = striped 5 = flecked 6 = dotted
- 1 Secondary color location: 1 = hilar ring 2 = ventral surface
 3 = sides 4 = dorsal surface
 5 = not restricted to any area 6 = combination of location (specify below) _____
- 2 Hilar ring on colored seeds: 1 = absent 2 = narrow 3 = butterfly shaped

8. SEED SHAPE AND SIZE:

- 1 Hilum view: 1 = elliptical 2 = oval 3 = round 1 Cross section: 1 = elliptical 2 = oval 3 = cordate 4 = round

- 3 Side view:   

1 = oval to oblong 2 = round 3 = reniform

8. SEED SHAPE AND SIZE: (Cont'd)

2 1 = truncate ends 2 = rounded ends

4 8 gm/100 seed

gm/100 seed lighter than }
 gm/100 seed same as }
 6 gm/100 seed heavier than 8 }

comparison variety from page one

9. ANTHOCYANIN: (1 = absent 2 = present)

2 Flowers 1 Stems 1 Pods 2 Seeds 1 Leaves

10. DISEASE RESISTANCE (0 = not tested 1 = susceptible 2 = resistant):

| | |
|---|---|
| <input type="checkbox"/> 0 Anthracnose (specify race below) _____ | <input type="checkbox"/> 0 Fuscous blight |
| <input type="checkbox"/> 0 Rust (specify race below) _____ | <input type="checkbox"/> 0 Red node virus |
| <input type="checkbox"/> 0 Powdery mildew | <input type="checkbox"/> 0 Pod mottle virus |
| <input type="checkbox"/> 0 Fusarium root rot | <input type="checkbox"/> Bean common mosaic virus (specify strain below) "I" gene resistance _____ |
| <input type="checkbox"/> 0 Pythium root rot | <input type="checkbox"/> 2 Mosaic mottle |
| <input type="checkbox"/> 0 Rhizoctonia root rot | <input type="checkbox"/> 1 Black root |
| <input type="checkbox"/> 0 Pythium wilt | <input type="checkbox"/> 0 Bean yellow mosaic virus |
| <input type="checkbox"/> 0 Angular leaf spot | <input type="checkbox"/> 0 Curly top |
| <input type="checkbox"/> 0 Bacterial wilt | <input type="checkbox"/> Other (specify below) _____ |
| <input type="checkbox"/> Halo blight (specify race below) _____ | |

11. INSECT RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)

| | |
|--|--|
| <input type="checkbox"/> 0 Aphids | <input type="checkbox"/> 0 Root knot nematode |
| <input type="checkbox"/> 0 Leaf hopper | <input type="checkbox"/> 0 Seed corn maggot |
| <input type="checkbox"/> 0 Lygus | <input type="checkbox"/> 0 Thrips |
| <input type="checkbox"/> 0 Pod borer | <input type="checkbox"/> 0 Weavils |
| | <input type="checkbox"/> Other (specify below) _____ |

12. PHYSIOLOGICAL RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)

0 Heat 0 Cold 0 Drought 0 Air pollution

13. COMMENTS:

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EXHIBIT E

STATEMENT OF THE BASIS OF APPLICANT'S OWNERSHIP

XP-B211 was originated and developed by John D. Atkin and David M. Webster, Asgrow Plant Breeders. By agreement between employee and Asgrow Seed Company, all rights to any invention, discovery, or development made by an employee are assigned to the Company. No rights to such invention, discovery, or development are retained by the employee.