

No.

8900165



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 (T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

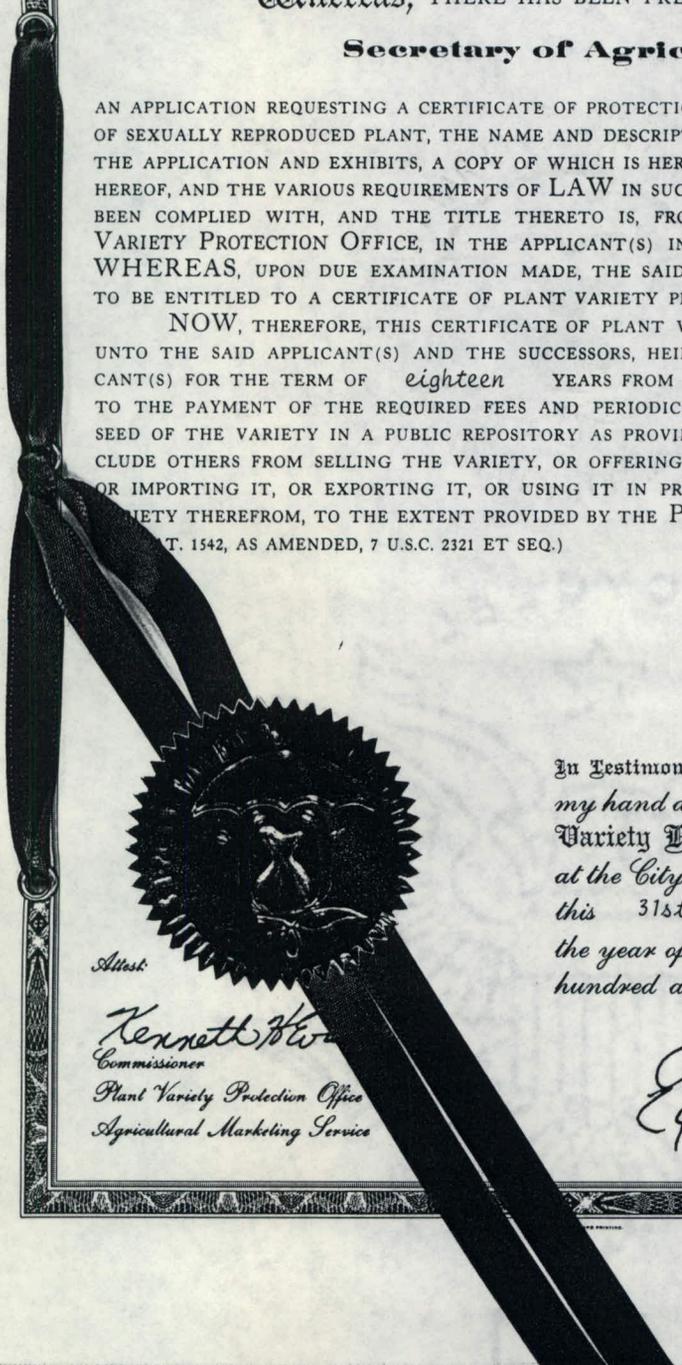
'Mustang'

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 W. ...
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Edward Madigan
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-B202	3. VARIETY NAME Mustang																																																
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 9626-190-46 Unit Kalamazoo, MI 49001		5. PHONE (Include area code) (616) 385-6605																																																	
6. GENUS AND SPECIES NAME Phaseolus vulgaris		7. FAMILY NAME (Botanical) Leguminosae																																																	
8. KIND NAME Garden Bean		9. DATE OF DETERMINATION September 1986																																																	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg);">FILING</td> <td>DATE</td> <td>TIME</td> <td>A.M.</td> <td>P.M.</td> </tr> <tr> <td colspan="4" style="text-align: center;"> Apr. 13, 1989 11:00 <input checked="" type="checkbox"/> A.M. <input type="checkbox"/> P.M. </td> </tr> <tr> <td rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg);">FEES RECEIVED</td> <td colspan="2">AMOUNT FOR FILING</td> <td colspan="2"></td> </tr> <tr> <td colspan="2"> \$ 1800.00 </td> <td colspan="2"></td> </tr> <tr> <td colspan="2">DATE</td> <td colspan="3"></td> </tr> <tr> <td colspan="2"> Apr. 13, 1989 </td> <td colspan="3"></td> </tr> <tr> <td colspan="2">AMOUNT FOR CERTIFICATE</td> <td colspan="3"></td> </tr> <tr> <td colspan="2"> \$ 200.00 </td> <td colspan="3"></td> </tr> <tr> <td colspan="2">DATE</td> <td colspan="3"></td> </tr> <tr> <td colspan="2"> December 30, 1991 </td> <td colspan="3"></td> </tr> </table>		FILING	DATE	TIME	A.M.	P.M.	Apr. 13, 1989 11:00 <input checked="" type="checkbox"/> A.M. <input type="checkbox"/> P.M.				FEES RECEIVED	AMOUNT FOR FILING				\$ 1800.00				DATE					Apr. 13, 1989					AMOUNT FOR CERTIFICATE					\$ 200.00					DATE					December 30, 1991				
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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 <i>Kathy Ward AAA 5 Dec 1991</i> Unit 9620-190-46 Asgrow Seed Company Kalamazoo, MI 49001 PHONE (Include area code): 616-385-6605																																																			
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED <ul style="list-style-type: none"> a. <input 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 in U.S. August 2, 1988 also offered for sale outside of U.S. 1989. <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 11, 1989																																																	
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April 11, 1989

EXHIBIT A

Origin and Breeding History for XP-B202 Garden Bean (Mustang)

XP-B202 was developed at Asgrow's Western Breeding Station (WBS), Twin Falls, Idaho, by backcrossing colored seed into the bean variety Bronco:

10-2-81 Planted Bronco and a colored seeded breeding line, R818803, in the greenhouse at WBS. Crosses made.

1-19-82 Planted BC₀ and Bronco in the greenhouse at WBS. Crosses made.

2-23-83 Planted BC₁ and Bronco in the greenhouse at WBS. Crosses made with colored-seed segregants.

5-26-83 Planted BC₂ and Bronco in the greenhouse at WBS. Crosses made with colored-seed segregants.

8-15-83 Planted BC₃ and Bronco in the greenhouse at WBS. Crosses made with colored-seed segregants.

11-7-83 Planted BC₄ and Bronco in the greenhouse at WBS. Crosses made with colored-seed segregants.

2-10-84 Planted BC₅ and Bronco in the greenhouse at WBS. Crosses made with colored-seed segregants.

5-3-84 Planted BC₆ and Bronco in the greenhouse at WBS. Crosses made with colored-seed segregants.

8-3-84 Planted BC₇ in the greenhouse at WBS. Allowed to self-pollinate, and seed saved from colored-seed segregants.

6-4-85 Planted BC₇S₁ as progeny rows in the field at WBS. Made selections from 8 lines that appeared to be uniform for colored seed.

10-10-85 Planted BC₇S₂ in the greenhouse at WBS. Saved selections from 4 of the 8 lines that were uniform for colored seed.

1-29-86 Planted BC₇S₃ in the greenhouse at WBS. Harvested plants as individuals.

5-27-86 Planted BC₇S₄ progenies in the field at WBS under numbers from R866175 to R866286. A few offtype progenies were removed during the growing season. Observations on the remainder indicated they were uniform and breeding true. Seed from these progenies were bulked together, and all subsequent increases of XP-B202 trace to these progenies.

5-23-87 Planted bulk of progenies from R866175 to R866286.

Observations during the growing season confirmed the line was uniform and breeding true.

Observations indicate XP-B202 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.

Asgrow Seed Company
PVP Application
Garden Bean, XP-B202 (Mustang)
April 11, 1989

8900165

EXHIBIT B

Novelty Statement Concerning XP-B202 Garden Bean (Mustang)

XP-B202 is a colored-seed fresh market variety developed by backcrossing colored seed into the variety Bronco.

To our knowledge the commercial variety that most closely resembles B202 is Bronco. The comparative characteristic that most clearly distinguishes the two includes, but may not be limited to, seed color: seeds of Bronco are white, whereas those of B202 are brown.

3. PLANT: (Cont'd)

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

1 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:

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

5 1 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
←		39	46	14	→

3 sieve	<input type="checkbox"/> <input type="checkbox"/>	cm length	<input type="checkbox"/> <input type="checkbox"/>	mm width	<input type="checkbox"/> <input type="checkbox"/>	mm thickness
4 sieve	<input type="checkbox"/> 1 <input type="checkbox"/> 3	cm length	<input type="checkbox"/> 9 <input type="checkbox"/> 5	mm width	<input type="checkbox"/> 8 <input type="checkbox"/> 6	mm thickness
5 sieve	<input type="checkbox"/> <input type="checkbox"/>	cm length	<input type="checkbox"/> <input type="checkbox"/>	mm width	<input type="checkbox"/> <input type="checkbox"/>	mm thickness
6 sieve	<input type="checkbox"/> <input type="checkbox"/>	cm length	<input type="checkbox"/> <input type="checkbox"/>	mm width	<input type="checkbox"/> <input type="checkbox"/>	mm thickness

6

6. FRESH PODS: (Cont'd)

- 3 Cross section pod shape: 1 = flat 2 = oval 3 = round 4 = heart
- 2 Creaseback: 1 = present 2 = absent
- 2 Pubescence: 1 = none 2 = sparse 3 = considerable
- 2 Spur: 1 = straight 2 = slightly curved 3 = curved
- 1 Constrictions: 1 = none 2 = slight 3 = deep
- 2 Pod flesh: 1 = light 2 = medium 3 = dark
- 1 5 mm spur length
- 3 Fiber: 1 = none 2 = sparse 3 = considerable
- 7 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:

- 1 1 = Monochrome 2 = Polychrome 1 1 = shiny 2 = dull
- 5 Primary color: } 1 = white 2 = yellow 3 = buff 4 = tan
- Secondary color: } 5 = brown 6 = pink 7 = red 8 = purple
 9 = blue 10 = black 11 = other (specify) _____
- 1 Color Pattern: 1 = none 2 = splashed 3 = mottled 4 = striped 5 = flecked 6 = dotted
- 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) _____
- 1 Hilar ring on colored seeds: 1 = absent 2 = narrow 3 = butterfly shaped

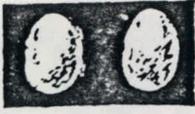
8. SEED SHAPE AND SIZE:

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

1 Side view:



1 = oval to oblong



2 = round



3 = reniform

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

2 1 = truncate ends 2 = rounded ends

2 6 gm/100 seed

gm/100 seed lighter than }

gm/100 seed same as }

comparison variety from page one

2 gm/100 seed heavier than 8 }

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

1 Flowers

1 Stems

1 Pods

2 Seeds

1 Leaves

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

0 Anthracnose (specify race below) _____

0 Fuscos blight

0 Rust (specify race below) _____

0 Red node virus

0 Powdery mildew

0 Pod mottle virus

0 Fusarium root rot

Bean common mosaic virus (specify strain below)
"I" gene resistance

0 Pythium root rot

2 Mosaic mottle

0 Rhizoctonia root rot

1 Black root

0 Pythium wilt

0 Bean yellow mosaic virus

0 Angular leaf spot

0 Curly top

0 Bacterial wilt

Other (specify below) _____

0 Halo blight (specify race below) _____

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

0 Aphids

0 Root knot nematode

0 Leaf hopper

0 Seed corn maggot

0 Lygus

0 Thrips

0 Pod borer

0 Weavils

Other (specify below) _____

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

0 Heat

0 Cold

0 Drought

0 Air pollution

13. COMMENTS:

Asgrow Seed Company
PVP Application
Garden Bean, XP-B202 (Mustang)
April 11, 1989

EXHIBIT 'E'

STATEMENT OF THE BASIS OF APPLICANT'S OWNERSHIP

XP-B202 (Mustang) was originated and developed by John D. Atkin an Asgrow Breeder. 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.