

No.



8800162

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

BEAN

'Biscayne'

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 30th day of August in the year of our Lord one thousand nine hundred and ninety-one.

Attest:

Kenneth Hevas
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Ed Madigan
Secretary of Agriculture

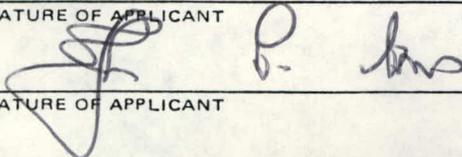
U.S. DEPARTMENT OF AGRICULTURE
 AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

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).

1. NAME OF APPLICANT(S) Asgrow Seed Company		2. TEMPORARY DESIGNATION XP-B204		3. VARIETY NAME Biscayne	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 9626-190-29 Kalamazoo, Michigan 49001		5. PHONE (Include area code) (616) 385-6608		FOR OFFICIAL USE ONLY PVPO NUMBER 8800162	
6. GENUS AND SPECIES NAME Phaseolus vulgaris		7. FAMILY NAME (Botanical) Leguminosae		FILING DATE May 24 1988 TIME 1:30 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.	
8. KIND NAME Garden Bean		9. DATE OF DETERMINATION October 1986		FEES RECEIVED AMOUNT FOR FILING \$ 1800.00 DATE May 13, 1988 AMOUNT FOR CERTIFICATE \$ 200.00 DATE July 22, 1991	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation				12. DATE OF INCORPORATION March 22, 1968	
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 Dr. John E. Cross Ms. Kathy Ward [MSA 24 July 1991] Asgrow Seed Company Unit 9626-190-29 Kalamazoo, Mi. 49001					
PHONE (Include area code): (616) 385-6608					
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? In U.S. since October, 1987 <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 5-3-88	
SIGNATURE OF APPLICANT				DATE	

April 1988

EXHIBIT A

Origin and Breeding History of Biscayne Garden Bean

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

- 5-83 Planted Triumph and C.S. Strike in the greenhouse at WBS. Crosses made.
- 6-83 Planted BC₀ and Triumph in the greenhouse at WBS. Crosses made.
- 11-83 Planted BC₁ and Triumph in the greenhouse at WBS. Crosses made.
- 2-84 Planted BC₂ and Triumph in the greenhouse at WBS. Crosses made.
- 5-84 Planted BC₃ and Triumph in the greenhouse at WBS. Crosses made.
- 8-84 Planted BC₄ and Triumph in the greenhouse at WBS. Crosses made.
- 10-84 Planted BC₅ and Triumph in the greenhouse at WBS. Crosses made.
- 2-85 Planted BC₆ and Triumph in the greenhouse at WBS. Crosses made.
- 6-4-85 Planted BC₇ in the field at WBS. Allowed to self.
- 10-85 Planted BC₇S₁ in the in the greenhouse at WBS. Selected plants with colored seed.
- 1-86 Planted BC₇S₂ in the greenhouse at WBS. Selected lines that were uniform for colored seed.
- 5-27-86 Planted bulks of lines uniform for colored seed in the field at WBS under the numbers R866326 to R866351. Discarded any lines not uniform for plant type, pod type, or seed color. The remaining progenies were bulked, and all subsequent increases of Biscayne trace to this bulk.
- 5-22-87 Planted bulk seed from progeny rows in the field at WBS under the number F87303. Observations during the growing season confirmed the line was uniform and breeding true.

Observations indicate Biscayne 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, BISCAYNE

8800162

EXHIBIT B

NOVELTY STATEMENT CONCERNING BISCAYNE GARDEN BEAN

Biscayne is a fresh market garden bean developed by backcrossing colored seed into the variety Triumph. To our knowledge the commercial variety that most closely resembles Biscayne is Triumph. The comparative characteristic that most clearly distinguishes the two includes but may not be limited to seed color; Triumph has white seeds whereas those of Biscayne are black.

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
	PVPO NUMBER 8800162
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) Kalamazoo, MI 49001	VARIETY NAME OR TEMPORARY DESIGNATION BISCAYNE

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)
Eagle

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 = wiry Branching habit:
 1 = compact 2 = open 1 = stout 2 = thin

4

3. PLANT: (Cont'd)

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

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:

1 = smooth 2 = wrinkled

1 = dull 2 = glossy

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

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:

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

Days to 50% bloom

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

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

1	2	3	4	5	6
-	-	42	46	12	-

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)

- 2 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
- 2 Constrictions: 1 = none 2 = slight 3 = deep
- 2 Pod flesh: 1 = light 2 = medium 3 = dark
- 2 0 mm spur length
- 3 Fiber: 1 = none 2 = sparse 3 = considerable
- 5 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
- 10 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

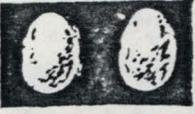
8. SEED SHAPE AND SIZE:

- 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

3 0 gm/100 seed

gm/100 seed lighter than

gm/100 seed same as

3 gm/100 seed heavier than 8

comparison variety from page one

Eagle

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

2 Flowers

2 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

2 Bean common mosaic virus (specify strain below)
'I' gene resistance to all strains

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:

8800162

Asgrow Seed Company
PVP APPLICATION
Garden Bean, BISCAYNE
April 1988

EXHIBIT E

STATEMENT OF THE BASIS OF APPLICANT'S OWNERSHIP

Biscayne was originated and developed by John D. Atkin, an Asgrow Plant 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.