No. 7700098

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 seventeen 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 (P.L. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'Bush Blue Lake 92'

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 *this* 16th *day of* March *in the year of our Lord one thousand nine hundred and* seventy-eight

Attest:

Acting
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

XP-B 92

FORM GR-470 (1-76)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
PLANT VARIETY PROTECTION OFFICE
NATIONAL AGRICULTURAL LIBRARY
BELTSVILLE, MARYLAND 20705

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.* SEE 780119

1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAME	FOR OFFICIAL USE ONLY	
XP-B 92	Bush Blue Lake 92	PV NUMBER 7700098	
2. KIND NAME	3. GENUS AND SPECIES NAME	FILING DATE 8-30-77	TIME 3:00 A.M. (P.M.)
Garden Bean	Phaseolus vulgaris	FEE RECEIVED $ 250.00	DATE 8-30-77
4. FAMILY NAME (BOTANICAL)	5. DATE OF DETERMINATION	$ 250.00	8-30-77
Leguminosae	August, 1975	$ 250.00	1-18-78

6. NAME OF APPLICANT(S)	7. ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*)	8. TELEPHONE AREA CODE AND NUMBER
Asgrow Seed Company	Kalamazoo, Michigan 49001	(616) 385-6605

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (*Corporation, partnership, association, etc.*)	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	Delaware	March 22, 1968

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

John A. Batcha
Asgrow Seed Company
Unit 9630-190-1
7000 Portage Road
Kalamazoo, Michigan 49001

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [XX] 13A. Exhibit A, Origin and Breeding History of the Variety (*See Section 52 of the Plant Variety Protection Act.*)
- [XX] 13B. Exhibit B, Novelty Statement.
- [XX] 13C. Exhibit C, Objective Description of the Variety (*Request form from Plant Variety Protection Office.*)
- [ ] 13D. Exhibit D, Additional Description of the Variety.

14A. 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). (If "Yes," answer 14B and 14C below.)* [ ] YES [XX] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [ ] YES [ ] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? [ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

15. Does the applicant(s) agree to the publication of his/her (their) name(s) and address in the Official Journal? [XX] YES [ ] NO

16. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically 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 Act.

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

July 27, 1977
(DATE)

John A. Batcha
(SIGNATURE OF APPLICANT)
John A. Batcha

1

(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, National Agricultural Library, Beltsville, Maryland 20705. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Give the date the applicant determined that he had a new variety based on (1) the definition in Section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give (1), the genealogy, including public and commerical varieties, lines, or clones used, and the breeding method. (2), the details of subsequent stages of selection and multiplication. (3), the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4), evidence of stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties; (1) identify these varieties and state all differences objectively; (2) Attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit C, Objective Description form for all characteristics, for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe; such as; plant habit, plant color, disease resistance, etc.

14A If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled or published or the certificate has been issued. However, if the applicant specifies "NO", he may change his choice. (See Section 180.15 of the Regulations and Rules of Practice.)

Asgrow Seed Company
Garden Bean, ~~XP-B 92~~ Bush Blue Lake 92

7700098

EXHIBIT A--Origin and Breeding History of ~~XP-B92~~ Bush Blue Lake 92 Garden Bean

The original cross, Eagle x Thor, was made in 1970, and ~~XP-B92~~ Bush Blue Lake 92 has been developed by straight selection from this cross. In August, 1975, it was determined that this line is distinct and that it has considerable potential as a large sieve Bush Blue Lake for the mid-west.

In 1976, the line performed very well in trials and a small increase was made. The line appeared to be very uniform and breeding true. A relatively small number of progenies were practically identical. Four hundred single plants were harvested in 1976, and progenies are being grown in 1977 to produce our "Breeder's Seed".

This line was designated ~~XP-B92~~ Bush Blue Lake 92 on August 17, 1976.

~~XP-B92~~ Bush Blue Lake 92 is a stable, true breeding line. We have found no variants, except for the flat pod mutation, which occurs in all round podded varieties known to us.

JEF 780119

J.D. Atkin
6/10/77

Asgrow Seed Company
Garden Bean, ~~XP-B 92~~ Bush Blue Lake 92

7700098

EXHIBIT B--Novelty Statement Concerning ~~XP-B92~~ Bush Blue Lake 92 Garden Bean

To our knowledge, the commercial Bush Blue Lake variety most similar to ~~XP-B92~~ Bush Blue Lake 92 is Thor. Comparative characteristics which make ~~XP-B92~~ Bush Blue Lake 92 a distinct variety include, but are not restricted to, the following:

1. ~~XP-B92~~ Bush Blue Lake 92 is much earlier than Thor.
2. ~~XP-B92~~ Bush Blue Lake 92 pods are smaller sieve size than Thor.

Replicated yield trials are conducted at Twin Falls where sections of the four replications are harvested every two or three days starting when the crop is not quite ready for commercial processing harvest and continuing until the crop is over mature. Sieve size is determined by bulking the pods from all four replications and running them through a commercial Chisholm-Ryder Bean Grader and then weighing the different sizes. Pod length is determined by measuring 25 sieve size five pods taken at random. Percent seed is derived in conjuntion with the fiber test where it is necessary to work with 100 grams of deseeded pods from canned samples. The seed removed in deseeding the pods is weighed and the percent seed is calculated.

Data from the 1976 trials are summarized in the accompanying table.

	THOR				Bush Blue Lake 92 ~~XP-B 92~~			
HARVEST DATE	LBS/ACRE	5% SIEVE & OVER	% SEED 5's	% SEED 6's	LBS/ACRE	5% SIEVE & OVER	% SEED 5's	% SEED 6's
7/31/76					7,500	12	3.5	
8/3/76					11,500	37	4.4	
8/5/76					> 11,400	53	4.7	6.2
8/7/76	8,100	61	2.1		14,800	57	7.5	
8/9/76	> 10,900	81	3.0		16,100	68	6.5	8.5
8/11/76	12,500	86	2.7	4.8				

The data indicate that ~~XP-B92~~ Bush Blue Lake 92 is much earlier than Thor. ~~XP-B92~~ Bush Blue Lake 92 has consistently higher percent seed than Thor, even though sieve sizes are smaller. This indicates that ~~XP-B92~~ Bush Blue Lake 92 pods are actually older and this is excellent evidence that ~~XP-B92~~ Bush Blue Lake 92 is:

1. Considerably earlier than Thor
2. Smaller sieve than Thor

J.D. Atkin
6/8/77

JEA 780119

~~XP B92~~ Bush Blue Lake 92 JEF 780119

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-1
(10-2-72)

EXHIBIT C
(Bean)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

OBJECTIVE DESCRIPTION OF VARIETY

INSTRUCTIONS: See Reverse.

BEAN (*PHALEOLUS VULGARIS*)

NAME OF APPLICANT(S)
Asgrow Seed Company

ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*)

Kalamazoo, Michigan 49001

FOR OFFICIAL USE ONLY

PVPO NUMBER 7700098

VARIETY NAME OR TEMPORARY DESIGNATION
Bush Blue Lake 92

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. TYPE:

[1] 1 = SNAPBEAN 2 = GREEN SHELL 3 = DRY EDIBLE 4 = MULTIPURPOSE

2. SEASON AND REGION OF ADAPTABILITY IN THE U.S.:

[2] Grows best during: 1 = SPRING 2 = SUMMER 3 = FALL 4 = WINTER

[6] Best adopted in: 1 = NORTHWEST 2 = NORTHCENTRAL 3 = NORTHEAST 4 = SOUTHEAST 5 = SOUTHWEST 6 = MOST REGIONS

3. MATURITY (*Days from seeding to first harvest*):

[6][8] GREEN PODS [ ][ ] GREEN SHELLS [ ][ ] DRY SEEDS

[0][2] NO. DAYS EARLIER THAN --------- [1]
[ ][ ] 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 8 = OTHER (*Specify*)

4. PLANT:

[1] 1 = DETERMINATE, ERECT BUSH 2 = DETERMINATE, SPRAWLING BUSH 3 = DETERMINATE, SEMIPOLE 4 = INDETERMINATE, POLE

[0][4][8] CM. HEIGHT OR LENGTH OF VINE FROM PRIMARY LEAF NODE

[0][0][4] NUMBER PRIMARY BRANCHES PER MAIN STALK

[4][8] CM. SPREAD

[1] Branching habit: 1 = COMPACT 2 = OPEN

[0][4] NUMBER INTERNODES ON MAIN STALK BETWEEN PRIMARY LEAF AND BASE OF TERMINAL INFLORESCENCE

[0][2] CM. LENGTH OF FIRST INTERNODE ABOVE PRIMARY LEAF

[0][7] MM. STALK DIAMETER ABOVE FIRST TRIFOLIATE LEAF

[2] Main stalk: 1 = BRITTLE 2 = WIREY [1] 1. STOUT 2. THIN

[2] Flower position:
[2] Pod Position:
1 = LOW, CONCENTRATED 2 = HIGH, CONCENTRATED 3 = SCATTERED

5. LEAVES:

[2] 1 = SMOOTH 2 = WRINKLED [1] 1 = DULL 2 = GLOSSY [2] Thickness: 1 = THIN 2 = MEDIUM 3 = THICK

[3] Size: 1 = SMALL (*Earliwax*) 2 = MEDIUM 3 = LARGE (*Tendercrop*) [12] CM. PETIOLE LENGTH (*To basal leaflets of first trifoliate leaf*)

[2] Tip shape of center leaflet: 1 = ROUNDED 2 = TAPER POINTED 3 = SHARP POINTED

[2] PUBESCENCE - Dorsal:
[2] PUBESCENCE - Ventral:
1 = NONE 2 = SLIGHT 3 = CONSIDERABLE

[3] Color: 1 = LIGHT GREEN (*Bountiful*) 2 = MEDIUM GREEN 3 = DARK GREEN (*Bush Blue Lake*)

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7700098

6. FLOWERS:

[1] Color: 1 = WHITE 2 = CREAM 3 = PINK 4 = LILAC 5 = PURPLE 6 = OTHER (Specify)_____

[2] Racemes: 1 = LONG 2 = MEDIUM 3 = SHORT [5] NUMBER FLOWERS PER RACEME

7. FRESH PODS: (Edible maturity, averages for 10 pods)

[2] Color: 1 = LIGHT GREEN (Bountiful) 2 = MEDIUM GREEN (Tendergreen) 3 = DARK GREEN (Wade) 4 = LIGHT YELLOW (Brittlewax) 5 = GOLDEN YELLOW (Cherokee Wax) 6 = GREEN-RED VARIAGATED (Horticultural) 7 = OTHER (Specify)_____

[15] CM. LENGTH [09] MM. WIDTH (Between sutures) [10] MM. THICKNESS [09] WIDTH/THICKNESS X 10

[3] Cross section pod shape: 1 = FLAT 2 = OVAL 3 = CREASEBACK 4 = ROUND

[2] Curvature: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED

[2] Pubescence: 1 = NONE 2 = SPARSE 3 = CONSIDERABLE

[1] Constrictions: 1 = NONE 2 = SLIGHT 3 = DEEP

[2] Spur: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED

[2] Surface: 1 = SHINY 2 = DULL

[1] Surface: 1 = SMOOTH 2 = BLISTERED

[2] Pod flesh: 1 = LIGHT 2 = DARK

[1] Pod flesh: 1 = FIRM 2 = WATERY

[11] MM. SPUR LENGTH

[2] Suture string: 1 = PRESENT 2 = ABSENT

[2] Fiber: 1 = NONE 2 = SPARSE 3 = CONSIDERABLE

[1] Seed development: 1 = SLOW 2 = MEDIUM 3 = FAST

[6] NUMBER OF SEEDS PER POD

[ ] NUMBER PODS PER PLANT (Once over harvest)

[ ] NUMBER MARKETABLE PODS PER PLANT (Once over harvest)

[2] Machine harvest: 1 = ADAPTED 2 = NOT ADAPTED

8. SEED COAT COLOR:

[1] 1 = MONOCHROME 2 = POLYCHROME

[1] 1 = SHINY 2 = DULL

[1] Primary color: [ ] Secondary color: 1 = WHITE 2 = YELLOW 3 = BUFF 4 = TAN 5 = BROWN 6 = PINK 7 = RED 8 = PURPLE 9 = BLUE 10 = BLACK 11 = OTHER (Specify)_____

[ ] Color pattern: 1 = SPLASHED 2 = MOTTLED 3 = STRIPED 4 = FLECKED 5 = DOTTED

[ ] Secondary color location: 1 = HILAR RING 2 = HILAR SURFACE 3 = STROPHIOLE 4 = MICROPYLE 5 = SIDES 6 = DORSAL SURFACE 7 = NOT RESTRICTED TO ANY AREA 8 = COMBINATION OF LOCATIONS (Specify)_____

[1] Hilar ring: 1 = NOT PRESENT 2 = NARROW 3 = BUTTERFLY SHAPED

[1] Vein-like under coat pattern: 1 = ABSENT 2 = PRESENT

9. SEED SHAPE AND SIZE:

[1] Hilum view: 1 = ELLIPTICAL 2 = OVAL 3 = ROUND

[3] Side view: 1 = OVAL 2 = ROUND 3 = KIDNEY 4 = TRUNCATE ENDS

[4] Cross section: 1 = ELLIPTICAL 2 = OVAL 3 = CORDATE 4 = ROUND

[32] GM. WEIGHT PER 100 SEEDS

[4] Classification: 1 = PEA 2 = MEDIUM 3 = MARROW 4 = KIDNEY 5 = PINTO

[06] MM. WIDTH (Dorsal to ventral)

[06] MM. THICKNESS (Side to side)

[14] MM. LENGTH

[010] WIDTH/THICKNESS X 10

~~XP-B92~~ Bush Blue Lake 92 JEF 780119

FORM GR-470-12 (PAGE 3 OF 3 PAGES) Asgrow Seed Company 7700098 EXHIBIT C, continued

10. ANTHOCYANIN: *(1 = Absent 2 = Present):*

1 FLOWERS	1 STEMS	1 PODS	1 SEEDS	1 LEAVES

11. DISEASE RESISTANCE *(0 = Not tested; 1 = Susceptible; 2 = Resistant):*

0 RUST *(Specify race)* _____	0 ANGULAR LEAF SPOT
0 BACTERIAL WILT	2 COMMON BEAN MOSAIC
0 ANTHRACNOSE	0 YELLOW BEAN MOSAIC
0 SOUTHERN BEAN MOSAIC	0 FUSARIUM ROOT ROT
0 CURLY TOP	2 N.Y. 15 BEAN MOSAIC
0 POWDERY MILDEW	0 BEAN MOSAIC VIRUS 4
0 HALO BLIGHT	0 FUSCOUS BLIGHT
0 ALFALFA MOSAIC VIRUS	0 ALFALFA MOSAIC VIRUS 2
0 POD MOTTLE VIRUS	0 RED NODE VIRUS
0 ROOT KNOT NEMATODE	OTHER *(Specify)* _____

12. INSECT RESISTANCE: *(0 = Not tested; 1 = Susceptible; 2 = Resistant)*

0 APHIDS	0 LEAF HOPPERS
0 POD BORER	0 LYGUS
0 THRIPS	0 WEAVILS
0 SEED CORN MAGGOT	OTHER *(Specify)* _____

13. PHYSIOLOGICAL RESISTANCE: *(0 = Not tested; 1 = Susceptible; 2 = Resistant)*

0 HEAT	0 COLD	0 DROUGHT	OTHER *(Specify)* _____

REFERENCES: The following publications may be used as a reference in completing this form:

1. Beans of New York. Vol. 1 Part II of Vegetables of New York. U.P. Hedrick et al. J. B. Lyon Company, Albany, N.Y. 1931.
2. Yarnell, S. H., Cytogenetics of the Vegetable Crops IV. Legumes. Bot. Rev. 31:247 - 330. 1965.
3. USDA Yearbook of Agriculture. 1937.

COLOR: Nickerson's or any recognized color fan may be used to determine the colors.