

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Ferry-Morse Seed Company

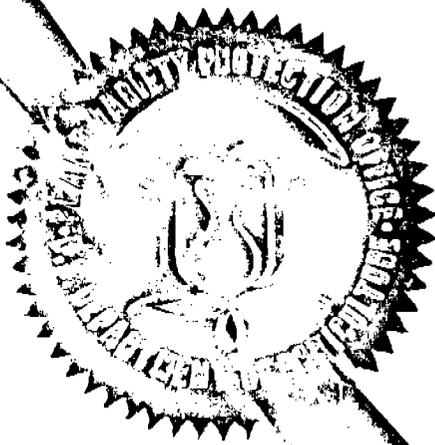
Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

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, 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

'Blue Crop'



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 12th day of August in the year of our Lord one thousand nine hundred and seventy-four.

Attest:

S. J. Rollin
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Earl L. Butz
Secretary of Agriculture

Variety: ~~E1209~~ (formerly designated 1C-32W) BLUE CROP

Exhibit A: Origin and Breeding History of the Variety

Selected as a single plant selection, involving the pedigree method of breeding, from a cross made in 1966 between the pedigreed line, 1H-25B(C)MsMsMsMs (later named Avalanche) as the seed parent and Bush Blue Lake 274 as the pollen parent. Single plant selections were made in the F₂ in 1967 for upright habit and long pods. Following 3 generations of bulk-massing of the F₃, F₄, and F₅ generations, single plant selections were made in 1969 in the F₆ for darker pod color with slower seed and fiber development. Following bulk massing of the F₇ generation, evaluation of the F₈ generation indicated uniformity of plant and pod type for desired pod color, length, and internal quality. The decision to increase this selection as a possible new variety was made August 24, 1970. The bulk-mass of the F₉ was inoculated in the winter 1970-71 and found resistant to the New York strain of Common Bean Mosaic Virus (BV1-A).

In the first generation of increase (F₉) no variants were found in a population of 180 plants. Similarly in the second generation of increase (F₁₀), no variants were found in a population of 2000 plants.

DMS 10-25-72

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1. VARIETY NAME OR TEMPORARY DESIGNATION BLUE CROP E1209 R/S 1/8/74		2. KIND NAME Snap Bean		FOR OFFICIAL USE ONLY PVPO NUMBER 73027	
3. GENUS AND SPECIES NAME Phaseolus vulgaris L.		4. FAMILY NAME (Botanical) Leguminosae		FILING DATE 11-13-72	TIME 3:00 P.M.
6. NAME OF APPLICANT(S) Ferry-Morse Seed Company Dr. George C. Emery, Breeder		5. DATE OF DETERMINATION 24 August 1970		FEE RECEIVED \$ 250	CHARGES
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION (corporation, partnership, association, etc.) Corporation		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P. O. Box 100 111 Ferry-Morse Way Mountain View, California 94040		8. TELEPHONE AREA CODE AND NUMBER (415) 967-6973	
10. STATE OF INCORPORATION California		11. DATE OF INCORPORATION 7 April 1969		12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:	

SELECT BELOW FOR EACH ATTACHMENT SUBMITTED:

- 12A. Exhibit A, Origin and Breeding History of the Variety (See Section 52, P.L. 91-577)
- 12B. Exhibit B, Botanical Description of the Variety
- 12C. Exhibit C, Objective Description of the Variety
- 12D. Exhibit D, Data Indicative of Novelty
- 12E. Exhibit E, Statement of the Basis of Applicant's Ownership

The applicant declares 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. (See Section 52, P.L. 91-577).

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), P.L. 91-577) (If "Yes," answer 14B and 14C below.) YES 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?

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes 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 (P.L. 91-577).

25 Oct. 1972
(DATE)

Ferry-Morse Seed Company
(SIGNATURE OF APPLICANT)
By: J. W. Prandyka, Executive Vice President
(SIGNATURE OF APPLICANT)

Variety: ~~E1209~~ BLUE CROP

Exhibit B: Botanical Description of the Variety

Seed germination and emergence are moderately rapid, early seedling growth vigorous. Time of flowering is similar to Tendercrop. Pods attain their mature size at the same time as Tendercrop but seed and fiber development are slightly slower than in Tendercrop pods.

Plants are determinate, bush, erect, medium tall (15-21 inches) with medium spread; the mature plant is similar in height to Tendercrop. Foliage is slightly darker green and more coarse than Tendercrop; leaflets are deltoid ovate, acuminate, with rounded or truncate bases. Stem and leaves are slightly pubescent. Inflorescences arising from the apex and leaf axils contain 4 to 8 white flower buds. Pods are borne medium to high in the plant and only occasionally touch the soil.

The stringless pods are $5\frac{1}{2}$ to 6 inches in length, round to slightly creaseback, $\frac{7}{16}$ to $\frac{1}{2}$ inch in diameter in cross-section and $\frac{7}{16}$ inches from suture to suture. The neck and spur are medium in length. The pod surface is smooth and slightly pubescent. Pod color is a medium blue green. Compared to Tendercrop, the pods average approximately $\frac{1}{2}$ inch longer, are slightly less creaseback, slightly lighter green with more of a blue hue, and with a shorter spur.

The seeds are white with a yellow eye ring, round in cross-section, oblong, and are similar in shape and size to Tendercrop.

AMB 10-25-72

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

FLOWERS STEMS PODS SEEDS LEAVES

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

<input type="checkbox"/> RUST (Specify race) _____	<input type="checkbox"/> ANGULAR LEAF SPOT
<input type="checkbox"/> BACTERIAL WILT	<input type="checkbox"/> COMMON BEAN MOSAIC
<input type="checkbox"/> ANTHRACNOSE	<input checked="" type="checkbox"/> YELLOW BEAN MOSAIC
<input type="checkbox"/> SOUTHERN BEAN MOSAIC	<input type="checkbox"/> FUSARIUM ROOT ROT
<input type="checkbox"/> CURLY TOP	<input checked="" type="checkbox"/> N.Y. 15 BEAN MOSAIC
<input type="checkbox"/> POWDERY MILDEW	<input type="checkbox"/> BEAN MOSAIC VIRUS 4
<input type="checkbox"/> HALO BLIGHT	<input type="checkbox"/> FUSCOUS BLIGHT
<input type="checkbox"/> ALFALFA MOSAIC VIRUS	<input type="checkbox"/> ALFALFA MOSAIC VIRUS 2
<input type="checkbox"/> POD MOTTLE VIRUS	<input type="checkbox"/> RED NODE VIRUS
<input type="checkbox"/> ROOT KNOT NEMATODE	<input type="checkbox"/> OTHER (Specify) _____

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

<input type="checkbox"/> APHIDS	<input type="checkbox"/> LEAF HOPPERS
<input type="checkbox"/> POD BORER	<input type="checkbox"/> LYGUS
<input type="checkbox"/> THRIPS	<input type="checkbox"/> WEAVILS
<input type="checkbox"/> SEED CORN MAGGOT	<input type="checkbox"/> OTHER (Specify) _____

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

HEAT COLD 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.

APPLICATION NO. 73027

VARIETY: ~~E1209~~ BLUE CROP

EXHIBIT D: DATA INDICATIVE OF NOVELTY

BLUE CROP

PER LETTER OF
R/S 6/7/74

~~E1209~~ most closely resembles the variety Bush Blue Lake 274, ~~in plant type, in pod texture, and in rate of seed and fiber development.~~ It is distinct from Bush Blue Lake 274 in having a slightly longer pod, lighter pod color, and smoother pod surface.

	<u>BLUE CROP</u> E1209	<u>Bush Blue Lake 274</u>
pod length	6.74 † .156 inches	6.44 † .114 inches

73027

EXHIBIT "E"

Plant Variety Protection Application

No: 73027

ASSIGNMENT

I, DR. GEORGE C. EMERY, agree and hereby do transfer and assign to FERRY-MORSE SEED COMPANY all of my rights, title, and interest in and to that certain variety namely, SNAP BEAN - #1209 BLUE CRCP for which application for Plant Variety Protection Certificate has been filed. This agreement shall be binding on my administrators, successors and assigns.

In Witness Whereof, I have executed this agreement this 11 day of January, 19 73.

BREEDER

George C. Emery

8

12/72

ASSIGNMENT OF INTELLECTUAL PROPERTY

WHEREAS, HARRIS MORAN SEED COMPANY, a corporation duly organized and existing under the laws of the State of Maryland, having its principal place of business at 4511 Willow Road, Suite 3, Pleasanton, California 94588 ("Assignor"), has, pursuant to that certain Bill of Sale and Assignment dated as of June 30, 1997, transferred to FERRY-MORSE SEED COMPANY (CALIFORNIA), a corporation duly organized and existing under the laws of the State of California, having its principal place of business at 555 Codoni Avenue, P.O. Box 4938, Modesto, California 95352-4938 ("Assignee"), all of the intellectual property Assignor had adopted, used and was using as of the effective date of this Assignment, including without limitation, the intellectual property represented by the United States Plant Variety Protection Certificates of Assignor identified on Schedule A hereto (collectively, the "Property"); and

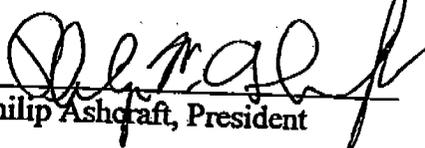
WHEREAS, on the date hereof, Assignee has changed its name to "Harris Moran Seed Company";

NOW, THEREFORE, effective by this instrument as of the close of business on June 30, 1997, and for good and valuable consideration, receipt of which is hereby acknowledged, Assignor hereby assigns to Assignee any and all right, title and interest worldwide in and to the Property and any and all recordations thereof, including, but not limited to, the use of the Property in any manner, all benefit of any and all prior use of the Property, and any and all rights to initiate claims or proceedings for past, present or future infringements of Assignor's rights, title and interest in and to the Property.

Dated: as of June 30, 1997

HARRIS MORAN SEED COMPANY

By:


Philip Ashcraft, President

CERTIFICATE OF AMENDMENT
OF THE
ARTICLES OF INCORPORATION
OF

FERRY-MORSE SEED COMPANY (CALIFORNIA)
(a California corporation)

17500010
ENDORSED
FILED
In the office of the Secretary of State
of the State of California

JUN 30 1997

Bill Jones
BILL JONES, Secretary of State

To the Secretary of State
State of California

Pursuant to the provisions of the General Corporation Law of the State of California, the undersigned officers of FERRY-MORSE SEED COMPANY (CALIFORNIA), a California corporation (the "Corporation"), do hereby certify as follows:

1. The name of the Corporation is Ferry-Morse Seed Company (California).
2. Article One of the Corporation's Articles of Incorporation, which relates to the name of the Corporation, is hereby amended in its entirety to read as follows:
 - One. The name of this Corporation is:
HARRIS MORAN SEED COMPANY.
3. The amendment herein provided for has been approved by the Corporation's Board of Directors.
4. The amendment herein provided for was approved by the written consent of the Corporation's sole shareholder in accordance with the provisions of Section 902 of the California General Corporation Law. The total number of outstanding shares of the corporation is 5,000.

IN WITNESS WHEREOF, each of the undersigned does hereby declare under the penalty of perjury that he or she signed the foregoing Certificate of Amendment as of June 30,

1997, in the Town of Modesto, State of California, in the official capacity set forth beneath his or her signature and that the statements set forth in this certificate are true of his or her own knowledge.

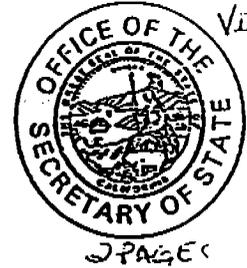


Yves Queste
Yves Queste, President

Helen Andritsakis
Helen Andritsakis, Secretary

State of California

SECRETARY OF STATE



I, *BILL JONES*, Secretary of State of the State of California, hereby certify:

That the attached transcript has been compared with the record on file in this office, of which it purports to be a copy, and that it is full, true and correct.

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this

JUN 30 1997



Bill Jones

Secretary of State

OBJECTIVE DESCRIPTION OF VARIETY
BEAN (PHASEOLUS VULGARIS)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S) FERRY-MORSE SEED COMPANY	FOR OFFICIAL USE ONLY
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) 111 FERRY-MORSE WAY P. O. BOX 100 MOUNTAIN VIEW, CALIFORNIA 94040	PVPO NUMBER 73027
	VARIETY NAME OR TEMPORARY DESIGNATION #1209 BLUE CROP

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

1. TYPE:

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

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

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

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

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

GREEN PODS GREEN SHELLS DRY SEEDS

NO. DAYS EARLIER THAN } 1 = TENDERCROP 2 = KENTUCKY WONDER 3 = KINGHORN WAX
 NO. DAYS LATER THAN } 4 = WHITE KIDNEY 5 = MICHELITE 62 6 = DWARF HORTI-CULTURAL
7 = BUSH BLUE LAKE 8 = OTHER (Specify)

4. PLANT:

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

CM. HEIGHT OR LENGTH OF VINE FROM PRIMARY LEAF NODE

NUMBER PRIMARY BRANCHES PER MAIN STALK

CM. SPREAD

Branching habit: 1 = COMPACT 2 = OPEN

NUMBER INTERNODES ON MAIN STALK BETWEEN PRIMARY LEAF AND BASE OF TERMINAL INFLORESCENCE

CM. LENGTH OF FIRST INTERNODE ABOVE PRIMARY LEAF.

MM. STALK DIAMETER ABOVE FIRST TRIFOLIATE LEAF

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

Flower position:

Pod Position: } 1 = LOW, CONCENTRATED 2 = HIGH, CONCENTRATED 3 = SCATTERED

5. LEAVES:

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

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

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

PUBESCENCE - Dorsal: } 1 = NONE 2 = SLIGHT 3 = CONSIDERABLE 4

PUBESCENCE - Ventral: }

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

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 6 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) _____

1 5 CM. LENGTH 1 1 MM. WIDTH (Between sutures) 1 3 MM. THICKNESS 8 5 $\frac{\text{WIDTH}}{\text{THICKNESS}} \times 10$

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

1 Curvature: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED 2 Pubescence: 1 = NONE 2 = SPARSE 3 = CONSIDERABLE

2 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

15 MM. SPUR LENGTH 2 Suture string: 1 = PRESENT 2 = ABSENT

1 Fiber: 1 = NONE 2 = SPARSE 3 = CONSIDERABLE 1 Seed development: 1 = SLOW 2 = MEDIUM 3 = FAST

6 NUMBER OF SEEDS PER POD 15 NUMBER PODS PER PLANT (Once over harvest)

9 NUMBER MARKETABLE PODS PER PLANT (Once over harvest) 1 Machine harvest: 1 = ADAPTED 2 = NOT ADAPTED

8. SEED COAT COLOR:

1 1 = MONOCHROME 2 = POLYCHROME 2 1 = SHINY 2 = DULL

1 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) _____

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

1 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

2 Vein-like under coat pattem: 1 = ABSENT 2 = PRESENT

9. SEED SHAPE AND SIZE:

1 Hilum view: 1 = ELLIPTICAL 2 = OVAL 3 = ROUND 1 Side view: 1 = OVAL 2 = ROUND
3 = KIDNEY 4 = TRUNCATE ENDS

4 Cross section: 1 = ELLIPTICAL 2 = OVAL 36 GM. WEIGHT PER 100 SEEDS
3 = CORDATE 4 = ROUND

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

6 MM. WIDTH (Dorsal to ventral) 5 MM. THICKNESS (Side to side) 5

1 4 MM. LENGTH 1 2 $\frac{\text{WIDTH}}{\text{THICKNESS}} \times 10$