

No.

830098



# 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 *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

'Caesar'



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 May in the year of our Lord one thousand nine hundred and eighty-six.

Attest

*Kenneth H. Evans*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*Richard E. Lyng*  
Secretary of Agriculture

1906



**APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE**

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

INSTRUCTIONS: See Reverse.

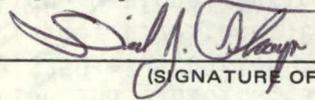
1a. TEMPORARY DESIGNATION OF VARIETY <b>E8270</b>		1b. VARIETY NAME <b>CAESAR</b>		<b>FOR OFFICIAL USE ONLY</b>	
				PV NUMBER <b>8300098</b>	
2. KIND NAME <b>GARDEN BEAN</b>		3. GENUS AND SPECIES NAME <b>PHASEOLUS VULGARIS L.</b>		FILING DATE <b>3/28/83</b>	TIME <b>9:30</b> A.M. <del>P.M.</del>
4. FAMILY NAME (BOTANICAL) <b>LEGUMINOSAE</b>		5. DATE OF DETERMINATION <b>APRIL 1979</b>		FEE RECEIVED \$ <b>1,000</b> \$ <del>500</del>	DATE <b>3/28/83</b> <b>4/23/86</b>
6. NAME OF APPLICANT(S) <b>FERRY-MORSE SEED COMPANY</b>		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) <b>P.O. DRAWER 7274 4938 MOUNTAIN VIEW - MODESTO CALIFORNIA 94039-95352-4938</b>		8. TELEPHONE AREA CODE AND NUMBER <b>(209) 579-7333 (415) 967-6973</b>	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <b>CORPORATION</b>		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION <b>CALIFORNIA</b>		11. DATE OF INCORPORATION <b>4 APRIL 1969</b>	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: <b>Dr. David J. Thompson, Vice President Ferry-Morse Seed Company P.O. Drawer 7274, Mountain View, California 94039-95352-4938</b>					
13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:					
<input checked="" type="checkbox"/> 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)					
<input checked="" type="checkbox"/> 13B. Exhibit B, Novelty Statement.					
<input checked="" type="checkbox"/> 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)					
<input checked="" type="checkbox"/> 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.) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED			
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)					
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)					
16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					

17. The applicant(s) declare(s) that a viable sample of basic seed 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 Act.

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

12 February 1983  
 (DATE)

  
 (SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

## INSTRUCTIONS

**GENERAL:** Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, 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 commercial 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 uniformity and 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, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.



VARIETY: Caesar (formerly E8270 (formerly 1D-52-(C)MsMs(formerly 1C-XR-1557-(GH)MsMs(W)3D(MT)Ms154(W)Ms)))

Exhibit A: Origin and Breeding History of the Variety

Caesar was selected as a single plant selection involving the pedigree method of breeding, from the cross 1C-XR1557 made between F<sub>3</sub> selections of the pedigreed line, 1C-X1261-Ms1,4,5,7, as the pollen parent and plants of the F<sub>2</sub> progeny, 1C-X1540-Ms, as the seed parent. Varieties in the ancestry of 1C-X1261-Ms1,4,5,7 include Tendercrop, Amigo, Bush Romano 71. Ancestors of 1C-X1540-Ms trace back to Custer, and Bush Romano 71.

Cross 1C-XR1557 was made in February, 1973, in the greenhouse at San Juan Bautista, California. The resulting four F<sub>1</sub> seed were planted back into the greenhouse in the spring of 1973. Bulk-massed F<sub>2</sub> seed, 1C-XR1557-(GH)Ms, was again planted in the greenhouse in the fall of 1973 at San Juan Bautista, California; the F<sub>3</sub> seed from these plants was in turn bulk-massed.

The F<sub>3</sub> seed, 1C-XR1557-(GH)MsMs, was planted in the field nursery at Columbus, Wisconsin, in the summer of 1974 and fourteen single plants were selected for tall, upright plant habit, heavy yield, with 6 inch, medium wide pods.

F<sub>4</sub> seed of the third selection, 1C-XR1557-(GH)MsMs(W)3, was planted back in a progeny row in the field in Wisconsin the following summer in 1975. The row was given a high rating for its upright habit, high pod height, and good concentration of maturity; seven F<sub>4</sub> plants were selected from the row.

F<sub>5</sub> seed of the fourth selection, 1C-XR1557-(GH)MsMs(W)3D, was planted in the greenhouse in Wisconsin in the fall of 1975. 160 plants were inoculated with Common Bean Mosaic Virus New York Strain (BV-1A); five plants were discarded with possible mosaic symptoms. The resulting F<sub>6</sub> seed was bulk-massed and grown out in the greenhouse in the spring of 1976; the F<sub>6</sub> plants were again inoculated in the seedling stage with BV-1A virus. The population of 160 plants was found resistant. F<sub>7</sub> seed from the individual plants was grown in progeny rows in the field in Wisconsin in the summer of 1976. The F<sub>7</sub> row designated 1C-XR1557-(GH)MsMs(W)3D(MT)Ms154 was rated highly for its good yield concentration of maturity; F<sub>8</sub> seed from this row was bulk-massed and was redesignated 1D-152 in anticipation of further seed increase and testing as a possible new Bush Romano-type variety.

1D-152 seed was planted at San Juan Bautista, California, in the summer of 1977. From a population of 161 plants, one necrotic type plant was rogued out; the seed from the remaining plants was bulk-massed. The trial row of the same seed in Wisconsin in 1977 was given a very high rating for its performance.

VARIETY: Caesar (formerly E8270 (formerly ID-52-(G)MaMa(formerly  
IC-XR-1557-(GH)MaMa(W)3D(MT)MaMa(W)Ma))

Exhibit A: Origin and Breeding History of the Variety

Caesar was selected as a single plant selection involving the pedigree method of breeding, from the cross IC-XR1557 made between F<sub>2</sub> selections of the pedigreed line, IC-X1261-Ma, A, 5, 7, as the pollen parent and plants of the F<sub>2</sub> progeny, IC-X1540-Ma, as the seed parent. Varieties in the ancestry of IC-X1261-Ma, A, 5, 7 include Tendercrop, Amigo, Bush Romano VI. Ancestors of IC-X1540-Ma trace back to Caesar, and Bush Romano VI.

Cross IC-XR1557 was made in February, 1973, in the greenhouse at San Juan Bautista, California. The resulting four F<sub>1</sub> seed were planted back into the greenhouse in the spring of 1973. Bulk-massed F<sub>2</sub> seed, IC-XR1557-(GH)Ma, was again planted in the greenhouse in the fall of 1973 at San Juan Bautista, California; the F<sub>3</sub> seed from these plants was in turn bulk-massed.

The F<sub>3</sub> seed, IC-XR1557-(GH)MaMa, was planted in the field nursery at Columbus, Wisconsin, in the summer of 1974 and fourteen single plants were selected for tall, upright plant habit, heavy yield, with 6 inch medium wide pods.

F<sub>4</sub> seed of the third selection, IC-XR1557-(GH)MaMa(W)3, was planted back in a progeny row in the field in Wisconsin the following summer in 1975. The row was given a high rating for its upright habit, high pod height, and good concentration of maturity; seven F<sub>4</sub> plants were selected from the row.

F<sub>5</sub> seed of the fourth selection, IC-XR1557-(GH)MaMa(W)3D, was planted in the greenhouse in Wisconsin in the fall of 1975. 100 plants were inoculated with Common Bean Mosaic Virus New York Strain (BV-IA); five plants were discarded with possible mosaic symptoms. The resulting F<sub>5</sub> seed was bulk-massed and grown out in the greenhouse in the spring of 1976; the F<sub>5</sub> plants were again inoculated in the seedling stage with BV-IA virus. The population of 100 plants was found resistant. F<sub>5</sub> seed from the individual plants was grown in progeny rows in the field in Wisconsin in the summer of 1976. The F<sub>5</sub> row designated IC-XR1557-(GH)MaMa(W)3D(MT)MaMa was rated highly for its good yield concentration of maturity; F<sub>5</sub> seed from this row was bulk-massed and was redesignated ID-152 in anticipation of further seed increase and testing as a possible new Bush Romano-type variety.

ID-152 seed was planted at San Juan Bautista, California, in the summer of 1977. From a population of 101 plants, one necrotic type plant was rogued out; the seed from the remaining plants was bulk-massed. The trial row of the same seed in Wisconsin in 1977 was given a very high rating for its performance.



✓ 1D-152(C)Ms seed was again grown for increase in California and grown in trial in Wisconsin, New York, and Oregon in 1978. The line continued to rate well in the various trial locations. The California planting of 2000 plants for increase showed no off-types and the line was considered quite stable genetically.

The decision to increase the line as a new variety was made in the spring of 1979. In the summer of 1979 the variety was further increased at San Juan Bautista, California; in a half-acre planting of E8270 no off types were again recovered.

Stock seed increases were made again in the summer of 1980 and 1981 in Hansen, Idaho. No off-types were noted in either planting.

E8270 was named Caesar in 1981.

19-152 (U) seed was again grown for increase in California and grown in trial in Wisconsin, New York, and Oregon in 1978. The line continued to rate well in the various trial locations. The California planting of 1980 plants for increase showed no off-types and the line was considered quite stable genetically.

The decision to increase the line as a new variety was made in the spring of 1979. In the summer of 1979 the variety was further increased at San Juan Bautista, California; in a half-acre planting of 28270 no off types were again recovered.

Stock seed increases were made again in the summer of 1980 and 1981 in Hansen, Idaho. No off-types were noted in either planting.

28270 was named Cassia in 1981.

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VARIETY: Caesar (formerly E8270 (formerly 1D-52-(C)MsMs (formerly 1C-XR1557-(GH)MsMs(W)3D(MT)Ms154(W)Ms)))

EXHIBIT B: Data Indicative of Novelty (AMENDED 3/3/86 m.w.)

Caesar most closely resembles the bean cv. Roma. Caesar is differentiated from Roma by having (1) a slightly narrower pod width (suture to suture), but (2) a wider (sidewall to sidewall) pod thickness.

A. Measurements were taken from field plots planted June 4, 1981, at Sun Prairie, Wisconsin.

	<u>Caesar</u>	<u>Roma</u>	<u>t</u>	<u>p</u>
1. Pod width (mm) (100 measurements)	18.4	19.9	8.26	<.001
2. Pod thickness (mm) (100 measurements)	10.4	8.5	10.16	<.001

B. Measurements were taken from field plots planted June 8, 1981, at San Juan Bautista, California.

	<u>Caesar</u>	<u>Roma</u>	<u>t</u>	<u>p</u>
1. Pod width (mm) (100 measurements)	15.3	17.1	8.97	<.001

C. Measurements were taken from field plots planted May 20, 1982, at Sun Prairie, Wisconsin.

	<u>Caesar</u>	<u>Roma</u>	<u>t</u>	<u>p</u>
1. Pod width (mm) (100 measurements)	17.9	19.0	4.58	<.001

D. Measurements were taken from field plots planted June 14, 1982, at San Juan Bautista, California.

	<u>Caesar</u>	<u>Roma</u>	<u>t</u>	<u>p</u>
1. Pod width (mm) (100 measurements)	17.4	18.6	4.34	<.001
2. Pod thickness (mm) (100 measurements)	11.2	9.9	8.61	<.001

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U. S. DEPARTMENT

OF AGRICULTURE

AMS  
PVPO

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) FERRY-MORSE SEED COMPANY	FOR OFFICIAL USE ONLY
	PVPO NUMBER 8300098
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O., DRAWER 7274 BOX 4938 MOUNTAIN VIEW, CALIFORNIA 94039 MODESTO 95352-4938	VARIETY NAME OR TEMPORARY DESIGNATION CAESAR

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 \_\_\_\_\_ . 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
- 3 = Kinghorn Wax
- 5 = Michelite 62
- 7 = Bush Blue Lake 290

- 2 = Kentucky Wonder
- 4 = White Kidney
- 6 = Dwarf Horticultural
- 8 = Other (specify below)  
Roma

3. PLANT:

1 = Determinate      2 = Indeterminate

cm height

cm shorter than .....

Same as .....

cm taller than .....

cm spread

cm narrower than .....

width same as .....

cm wider than .....

Main stalk: 1 = brittle      2 = wirey

comparison variety from above

Number primary branches near base

comparison variety from above

Branching habit:  
1 = compact      2 = open

1 = stout      2 = thin

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

2 1 = truncate ends 2 = rounded ends

5  1 gm/100 seed

0  7 gm/100 seed lighter than

8

gm/100 seed same as

-

comparison variety from page one

-  - gm/100 seed heavier than

-

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

0 Flowers

0 Stems

0 Pods

0 Seeds

0 Leaves

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

0 Anthracnose (specify race below)

0 Fuscous 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)  
**BV-1A**

0 Pythium root rot

2 Mosaic mottle

0 Rhizoctonia root rot

0 Black root

0 Pythium wilt

0 Bean yellow mosaic virus

0 Angular leaf spot

0 Curly top

0 Bacterial wilt

0 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

0 Other (specify below)

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

0 Heat

0 Cold

0 Drought

0 Air pollution

13. COMMENTS:

8

VARIETY: Caesar (formerly E8270 (formerly 1D-152-(C)MsMs (formerly IC-XR1557-(GH)MsMs(W)3D(MT)Ms154(W)Ms)))

Exhibit D. Botanical Description of the Variety

Seed germination is moderately rapid, emerging seedlings are large and vigorous; the unifoliate leaves develop rapidly and often are large as the hypocotyls straighten up from the crook position. The unifoliate leaves in this situation develop below the soil level in the absence of light and first appear yellow until mature chloroplasts develop.

Plants are generally determinate, tall, upright, with a narrow spread. However, under warm temperatures, high moisture, reduced light conditions, the internodes become extended and the plants appear less determinate, semi-viney, and less upright. The leaves are small (8.6 cm. long x 6.9 cm. wide), deltoid ovate, acuminate, with rounded bases, pubescent, lightish green, on medium length petioles. The stems and petioles are moderately stout and brittle, but become thinner and more wirey when low light, warm, humid-rainy conditions prevail. Inflorescences arise from the apex and axils of the leaves and contain 4 to 8 white flower buds. Pods are generally borne high on the plants, but touch the soil when the plant tends to go toward a less determinate type growth.

The pods are 12 to 15 cm. in length, 14 to 18 cm. in width, 9 to 13 cm. in thickness, with a 9 mm. spur; the pedicels are relatively short. The pod surface is medium bumpy over the seed, pubescent, and medium green in color. Seed development in the pods is slow and the pods remain fleshy for a long period of time. The pods frequently do not develop a full complement of seed; as a result the pods frequently are not fully filled out.

The seed are white, oval-shaped, large (14 mm. long x 8 mm. wide x 7 mm. deep).

8300038

VARIETY: Gaear (formerly R8270) (formerly ID-151-(C)MaMa (formerly IC-XR1527-(CH)MaMa(W)3D(MT)Ma154(W)Ma))

Exhibit D. Botanical Description of the Variety

Seed germination is moderately rapid, emerging seedlings are large and vigorous; the unifoliate leaves develop rapidly and often are large as the hypocotyls straighten up from the crook position. The unifoliate leaves in this situation develop below the soil level in the absence of light and first appear yellow until mature chloroplasts develop.

Plants are generally determinate, tall, upright, with a narrow spread. However, under warm temperatures, high moisture, reduced light conditions, the internodes become extended and the plants appear less determinate, semi-viney, and less upright. The leaves are small (8.6 cm. long x 6.9 cm. wide), deltoid ovate, acuminate, with rounded bases, pubescent, lightish green, on medium length petioles. The stems and petioles are moderately stout and brittle, but become thinner and more wiry when low light, warm, humid-rainy conditions prevail. Inflorescences arise from the apex and axils of the leaves and contain 4 to 8 white flower buds. Buds are generally borne high on the plants, but touch the soil when the plant tends to go toward a less determinate type growth.

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The seed are white, oval-shaped, large (14 mm. long x 8 mm. wide x 7 mm. deep).



EXHIBIT "E"

Plant Variety Protection Application

No: 8300098, 'Caesar'

ASSIGNMENT

I, 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, Bean 'Caesar', 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 18 day of February, 19 86.

BREEDER

George C. Emery

12/72

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AMS

EVPO

## ASSIGNMENT OF INTELLECTUAL PROPERTY

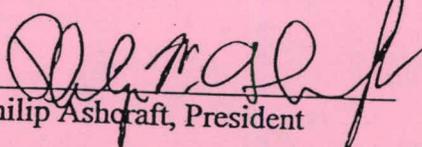
WHEREAS, HARRIS MORAN SEED COMPANY, a corporation duly organized and existing under the laws of the State of Maryland, having its principal place of business at 4511 Willow Road, Suite 3, Pleasanton, California 94588 ("Assignor"), has, pursuant to that certain Bill of Sale and Assignment dated as of 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)

1400010

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

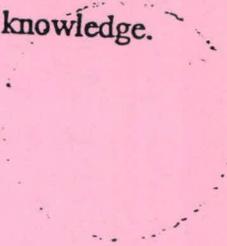
Pursuant to the provisions of the General Corporation Law of the State of California, the undersigned officers of FERRY-MORSE SEED COMPANY (CALIFORNIA), a California corporation (the "Corporation"), do hereby certify as follows:

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



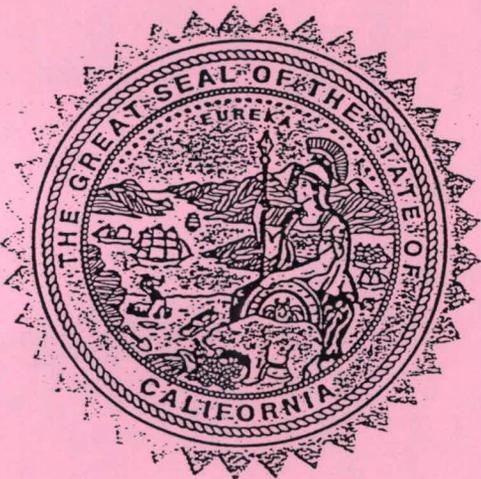
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I, *BILL JONES*, Secretary of State of the State of California, hereby certify:

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 1937



*Bill Jones*

Secretary of State

