

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## FMC Corporation

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

'Gem'

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 30th day of October in  
 the year of our Lord one thousand nine  
 hundred and seventy-four

Attest:

*J. J. Rollin*

Commissioner  
 Plant Variety Protection Office  
 Grain Division  
 Agricultural Marketing Service

*Earl L. Butz*

Secretary of Agriculture

SCULLY, SCOTT, MURPHY & PRESSER

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

200 GARDEN CITY PLAZA

GARDEN CITY, NEW YORK 11530-0299

OSWALD G. HAYES (1911-1982)

P. O. BOX 299

GARDEN CITY, NEW YORK 11530-0299

TELEPHONE: (516) 742-4343

CABLE: SCULLYSCOT

TELEX: 230 901 SANS UR

FAX: 0101 (516) 742-4366

JOHN F. SCULLY  
ANTHONY C. SCOTT  
STEPHEN D. MURPHY  
LEOPOLD PRESSER  
AUGUST G. MARON  
WILLIAM C. ROCH  
WILLIAM E. McNULTY  
NORTON S. JOHNSON

KENNETH L. KING\*  
FRANK S. DIGIGLIO  
JAMES J. O'CONNELL  
ROBERT J. EICHELBURG  
MARVIN BRESSLER  
JOHN S. SENSNY  
PAUL J. ESATTO, JR.  
JOHN M. GENOVA  
MARK J. COHEN  
EDWARD W. GROLZ

\*D.C. BAR ONLY

July 16, 1986

Plant Variety Protection Office  
National Agricultural Library Building  
Room 500  
Beltsville, MD 20705

Re: Recording of Assignments  
Our Ref: O.F. 43,002

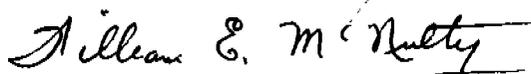
Dear Sir:

Enclosed are two assignments of Plant Variety Protection Certificates and Plant Variety Protection Applications from Joseph Harris Company, Inc. and Moran Seeds, Inc. to Les Produits Organiques du Santerre - Orsan S.A. which are being submitted herewith for recording in the Plant Variety Protection Office pursuant to 7 U.S.C. §2531.

Exhibit A of the assignment from Joseph Harris Company, Inc. refers to seven (7) certificates and Exhibit A of the assignment from Moran Seeds, Inc. refers to twenty (20) certificates and Exhibit B of said assignment refers to five (5) applications. Accordingly, our check, payable to The Treasurer of the United States, in the amount of \$160.00 is enclosed for the requisite recording fee calculated as follows, pursuant to 7 C.F.R. §180.175.

32 x \$5.00 = \$160.00

Respectfully submitted,



William E. McNulty

WEM:kjg

Enclosures

ASSIGNMENT

WHEREAS, Joseph Harris Company, Inc. ("Harris"), a corporation duly organized and existing under the laws of the State of Delaware is the owner of United States Plant Variety Protection Certificates listed in Exhibit A hereto; and

WHEREAS, in accordance with a Technology Transfer Agreement (the "Transfer Agreement") among Celanese Corporation ("Celanese"), Moran Seeds, Inc., Harris, CelPril Industries, Inc., Harris Moran International B.V. ("Sellers"), Virginia Chemicals, Inc., Les Produits Organiques du Santerre-Orsan S.A. ("Orsan"), HMS, CP Acquisition Inc., and Exploitatiemaatschappij Wolwevershaven B.V., dated January 10, 1985, and a Purchase Agreement dated December 7, 1985, as amended, among Celanese, Sellers and Orsan, has purchased from Harris said United States Plant Variety Protection Certificates.

NOW, THEREFORE, in accordance with said Transfer Agreement and Purchase Agreement, Harris assigns to Orsan all of its rights, title and interest in and to said United States Plant Variety Protection Certificates.

Harris hereby authorizes Orsan to apply for and obtain the recordation of this Assignment. Harris agrees that it shall, without further consideration, promptly and duly cause to be performed such lawful acts and execution of any other documents as Orsan may reasonably request in order for Orsan to obtain the full benefits of this Assignment and to permit Orsan to be duly recorded in each office, bureau and tribunal in the appropriate jurisdiction as the registered owner or proprietor of each of the rights hereby assigned. Such instruments and documents shall include, without limitation, such applications, affidavits and other documents for filing in such jurisdictions as Orsan may from time to time reasonably request.

By these presents HMS does hereby accept this Assignment and authorize the recording thereof with the appropriate authorities aforesaid.

IN WITNESS WHEREOF, the parties have caused this Assignment to be executed by its proper officers thereunto duly authorized this 10th day of January, 1985.

JOSEPH HARRIS COMPANY, INC.,  
Assignor

By: David A. Jenkins  
David A. Jenkins  
Vice President

LES PRODUITS ORGANIQUES DU  
SANTERRE-ORSAN S.A.

Assignee

By: [Signature]  
Title: Attorney-in-fact

STATE OF New York  
COUNTY OF New York

Before me, a Notary Public, in and for said County, personally appeared David Jenkins who acknowledged that he is Vice President of Joseph Harris Company, Inc., the corporation which executed the foregoing instrument and who acknowledged he signed said instrument on behalf of said corporation by authority of its Board of Directors; and that said instrument is the free corporate act and deed of said Joseph Harris Company, Inc.

Sworn before me at New York this 10th day  
of January, 1985

Alex C. Lengyel  
NOTARY PUBLIC

(Notary Public)

My Commission Expires:

ALEX C. LENGYEL  
Notary Public, State of New York  
No. 31-4805123  
Qualified in New York County  
Commission Expires March 30, 1986

STATE OF New York  
COUNTY OF New York

Before me, a Notary Public, in and for said County, personally appeared Patrice Leffordy who acknowledged that he is ~~Branch~~ Branch of Les Produits Organiques du Santerre-Orsan S.A. the corporation which executed the foregoing instrument and who acknowledged he signed said instrument on behalf of said corporation by authority of its Board of Directors; and that said instrument is the free corporate act and deed of said Les Produits Organiques du Santerre-Orsan S.A.

Sworn before me at New York this 10th day of January, 1985.

Alex C. Lengyel  
NOTARY PUBLIC

(Notary Public)

My Commission Expires:

ALEX C. LENGYEL  
Notary Public, State of New York  
No. 31-4805123  
Qualified in New York County  
Commission Expires March 30, 1986

United States Plant Variety Protection Certificates

<u>Cert. No.</u>	<u>Date Issued</u>	<u>Kind</u>	<u>Variety Name</u>	<u>Owner</u>
<del>7200087</del>	<del>8/8/75</del>	<del></del>	Gypsy Sunshine	Joseph Harris Company, Inc.
7605018	9/28/77	Marigold	Cabaret Orange	Joseph Harris Company, Inc.
7800033	12/21/78	Radish	Fancy Red	Joseph Harris Company, Inc.
7800086	1/25/79	Lettuce	Deep Red	Joseph Harris Company, Inc.
8200045	9/23/82	Turnip	Royal Gem	Joseph Harris Company, Inc.
8200068	12/30/82	Egg Plant	Little Fingers	Joseph Harris Company, Inc.
8300024	12/30/83	Radish	Red King	Joseph Harris Company, Inc.

35

ASSIGNMENT

WHEREAS, Moran Seeds, Inc. ("Moran"), a corporation duly organized and existing under the laws of the State of Delaware is the owner of United States Plant Variety Protection Certificates (the "Certificates"), listed in Exhibit A hereto and Pending United States Plant Variety Protection Applications (the "Applications"), listed in Exhibit B hereto; and

WHEREAS, in accordance with a Technology Transfer Agreement (the "Transfer Agreement") among Celanese Corporation ("Celanese"), Moran Seeds, Inc., Joseph Harris Company, Inc., CelPril Industries, Inc., Harris Moran International B.V. ("Sellers"), Virginia Chemicals, Inc., Les Produits Organiques du Santerre-Orsan S.A. ("Orsan"), HMS Acquisition Inc., CP Acquisition Inc., and Exploitiemaatschappij Wolwevershaven B.V., dated January 10, 1985, and a Purchase Agreement dated December 7, 1985, as amended, among Celanese, Sellers and Orsan, Orsan has purchased from Moran said Certificates and Applications.

NOW, THEREFORE, in accordance with said Transfer Agreement and Purchase Agreement, Moran assigns to Orsan all of its rights, title and interest in and to said Certificates and Applications.

Moran hereby authorizes Orsan to apply for and obtain the recordation of this Assignment. Moran agrees that it shall, without further consideration, promptly and duly cause to be performed such lawful acts and execution of any other documents as Orsan may reasonably request in order for Orsan to obtain the full benefits of this Assignment and to permit Orsan to be duly recorded in each office, bureau and tribunal in the appropriate jurisdiction as the registered owner or proprietor of each of the rights hereby assigned. Such instruments and documents shall include, without limitation, such applications, affidavits and other documents for filing in such jurisdictions as Orsan may from time to time reasonably request.

By these presents Orsan does hereby accept this Assignment and authorize the recording thereof with the appropriate authorities aforesaid.

IN WITNESS WHEREOF, the parties have caused this Assignment to be executed by its proper officers thereunto duly authorized this 10th day of January, 1985.

MORAN SEEDS, INC.,  
Assignor

By: David A. Jenkins  
David A. Jenkins  
Vice President

LES PRODUITS ORGANIQUES DU  
SANTERRE-ORSAN S.A.  
Assignee

By: [Signature]  
Title: Attorney-in-fact

STATE OF New York  
COUNTY OF New York

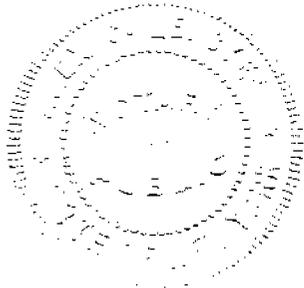
Before me, a Notary Public, in and for said County, personally appeared David Jenkins who acknowledged that he is Vice President of Moran Seeds, Inc., the corporation which executed the foregoing instrument and who acknowledged he signed said instrument on behalf of said corporation by authority of its Board of Directors; and that said instrument is the free corporate act and deed of said Moran Seeds, Inc.

Sworn before me at New York this 10th day  
of January, 1985

Alex C. Lengyel  
NOTARY PUBLIC

(Notary Public)

My Commission Expires:



ALEX C. LENGYEL  
Notary Public, State of New York  
Qualified in New York County  
Commission Expires March 20, 1986

STATE OF New York  
COUNTY OF New York

Before me, a Notary Public, in and for said County, personally appeared Patrice G. Hody who acknowledged that he is ~~Patrice G. Hody~~ Patrice G. Hody of Les Produits Organiques du Santerre-Orsan S.A., the corporation which executed the foregoing instrument and who acknowledged he signed said instrument on behalf of said corporation by authority of its Board of Directors; and that said instrument is the free corporate act and deed of said Les Produits Organiques du Santerre-Orsan S.A.

Sworn before me at New York this 10th  
day of January, 1985.

Alex C. Lengyel  
NOTARY PUBLIC

(Notary Public)

My Commission Expires:

ALEX C. LENGYEL  
Notary Public, State of New York  
No. 248724  
Qualified in New York County  
Commission Expires March 10, 1986

United States Plant Variety Protection Certificates

<u>Cert. No.</u>	<u>Date Issued</u>	<u>Kind</u>	<u>Variety Name</u>	<u>Owner</u>
7200145	10/30/74	Garden Bean	Gem	Moran Seeds, Inc.
7200146	11/15/74	Watermelon	Charleston 76	Moran Seeds, Inc.
7400013	5/9/74	Lettuce	Calmaria	Moran Seeds, Inc.
7400014	6/19/74	Lettuce	Cal K-60	Moran Seeds, Inc.
7400071	6/19/74	Lettuce	Cabrillo	Moran Seeds, Inc.
7600032	9/15/77	Lettuce	Vanagara	Moran Seeds, Inc.
7600039	12/8/77	Lettuce	Morangold	Moran Seeds, Inc.
7800028	5/31/79	Muskmelon	Valley Gold	Moran Seeds, Inc.
7900038	1/14/82	Garden Bean	Blue Duet	Moran Seeds, Inc.
7900039	7/15/82	Snapbean	Score	Moran Seeds, Inc.
7900066	11/27/79	Cauliflower	Snowball 123	Moran Seeds, Inc.
8000020	7/31/80	Muskmelon	Top Net	Moran Seeds, Inc.
8000082	12/10/81	Lettuce	Delmar	Moran Seeds, Inc.
8200019	10/28/82	Onion	OMO M	Moran Seeds, Inc. Oshita, Inc.
8200061	3/24/83	Watermelon	Sun Gold	Moran Seeds, Inc.
8200104	10/28/82	Tomato	Advantage	Moran Seeds, Inc.
8200105	11/26/82	Tomato	Moran 3053	Moran Seeds, Inc.
8200027	4/23/83	Lettuce	El Toro	Moran Seeds, Inc.
8100172	9/29/83	Lettuce	Van Mor	Moran Seeds, Inc.
8300113	8/31/84	Muskmelon	Top Net SR	Moran Seeds, Inc.

Pending United States Plant Variety Protection Applications

<u>Application No.</u>	<u>Filing Date</u>	<u>Kind</u>	<u>Variety Name</u>	<u>Owner</u>
8100167	9/9/81	Lettuce	Yuma	Moran Seeds, Inc.
8300155	7/18/83	Celery	Bishop	Moran Seeds, Inc.
8300156	7/18/83	Celery	Deacon	Moran Seeds, Inc.
8300172	9/1/83	Tomato	Diego	Moran Seeds, Inc.
8400013	12/1/83	Lettuce	Greenfield	Moran Seeds, Inc.

SCULLY, SCOTT, MURPHY & PRESSER

JOHN F. SCULLY  
ANTHONY C. SCOTT  
STEPHEN D. MURPHY  
LEOPOLD PRESSER  
AUGUST G. MARON  
WILLIAM C. ROCH  
WILLIAM E. McNULTY  
NORTON S. JOHNSON

A PROFESSIONAL CORPORATION  
ATTORNEYS AT LAW  
200 GARDEN CITY PLAZA  
GARDEN CITY, NEW YORK 11530-0299

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P. O. BOX 299  
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MARK J. COHEN  
EDWARD W. GROLZ  
\*D.C. BAR ONLY

July 16, 1986

Plant Variety Protection Office  
National Agricultural Library Building  
Room 500  
Beltsville, MD 20705

Re: Recording of Assignments  
Our Ref: O.F. 43,002

Dear Sir:

Enclosed are two assignments of Plant Variety Protection Certificates and Plant Variety Protection Applications from Joseph Harris Company, Inc. and Moran Seeds, Inc. to Les Produits Organiques du Santerre - Orsan S.A. which are being submitted herewith for recording in the Plant Variety Protection Office pursuant to 7 U.S.C. §2531.

Exhibit A of the assignment from Joseph Harris Company, Inc. refers to seven (7) certificates and Exhibit A of the assignment from Moran Seeds, Inc. refers to twenty (20) certificates and Exhibit B of said assignment refers to five (5) applications. Accordingly, our check, payable to The Treasurer of the United States, in the amount of \$160.00 is enclosed for the requisite recording fee calculated as follows, pursuant to 7 C.F.R. §180.175.

32 x \$5.00 = \$160.00

Respectfully submitted,

*William E. McNulty*  
William E. McNulty

WEM:kjg

Enclosures

SCULLY, SCOTT, MURPHY & PRESSER  
A PROFESSIONAL CORPORATION  
200 GARDEN CITY PLAZA  
GARDEN CITY, NEW YORK 11530

REMITTANCE ADVICE					
C949					
170002					
OF43002					

50-1063  
214  
6249

PAY		THE SUM <u>160 DOLLARS</u>		DOLLARS
DATE	TO THE ORDER OF		CHECK AMOUNT	
7/16/86	Treasurer of the United States		160.00	

LONG ISLAND TRUST COMPANY  
SEVENTH STREET OFFICE GARDEN CITY, N.Y.

*John J. Agnew*

⑈006249⑈ ⑆021410637⑆ ⑆01135148⑈5⑈

SCULLY, SCOTT, MURPHY & PRESSER

JOHN F. SCULLY  
 ANTHONY C. SCOTT  
 STEPHEN D. MURPHY  
 LEOPOLD PRESSER  
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July 16, 1986

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Respectfully submitted,

*William E. McNulty*  
 William E. McNulty

WEM:kjg

Enclosures

SCULLY, SCOTT, MURPHY & PRESSER A PROFESSIONAL CORPORATION 200 GARDEN CITY PLAZA GARDEN CITY, NEW YORK 11530		REMITTANCE ADVICE C 249 110002 DF43002	50-1063 214 6249
PAY <u>THE SUM 160 DOLS 00 CTS</u>		DOLLARS	
DATE 7/16/86	TO THE ORDER OF Treasurer of the United States		CHECK AMOUNT 160.00
LONG ISLAND TRUST COMPANY SEVENTH STREET OFFICE GARDEN CITY, N.Y.		<i>Lisa Argemeyer</i>	

⑈006249⑈ ⑆02440637⑆ ⑆01⑈3548⑈5⑈

PV # 72145

# FMC CORPORATION



NIAGARA CHEMICAL DIVISION

SEED DEPARTMENT • BOX 3091, MODESTO, CALIFORNIA 95353 • TELEPHONE: (209) 529-7500  
CABLE ADDRESS: RESEARCH MODESTO

## EXHIBIT A

### ORIGIN AND BREEDING HISTORY OF THE VARIETY

Maine Agriculture Experiment Station released several lines of wax beans in 1965 including one designated MEW 6211. This received Accession number 1190. A single plant selection was made in this line in 1965. This selection was increased by bulking in 1966 and 1967.

In 1968, 50 single plant selections were made from this bulk population. These plants were bulked and planted in 1969. In 1970 and 1971 seed from this bulked lot was sampled and planted in trials outside of California for adaptation evaluation. Results were promising so that in 1972 foundation seed is being produced from the 1969 bulk crop. Stock seed and a moderate amount of commercial seed will be available in 1974.

The only variant observed is a vining type with a frequency of 1 plant in 50 lb of seed (1:56,600). This variant is readily identified, particularly at the prebloom stage, as having elongated internodes and having a plant height of 3 times the normal determinate bush type.

Uniformity of ~~MEW 6211~~ <sup>GEM</sup> has been observed for several years at 5 locations throughout the United States. The variety has been uniform in all trials and no evidence has been observed of heterozygosity in the line.

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1. VARIETY NAME OR TEMPORARY DESIGNATION <del>NCX 006</del> <b>GEM</b>		2. KIND NAME Wax Snap Bean		FOR OFFICIAL USE ONLY PVPO NUMBER <b>72145</b>	
3. GENUS AND SPECIES NAME Phaseolous vulgaris		4. FAMILY NAME (Botanical) Leguminosae		FILING DATE <b>6/19/72</b>	TIME <b>2:00 P.M.</b>
6. NAME OF APPLICANT(S) FMC Corporation Niagara Chemical Div. Seed Department <i>Moran Seeds, Inc. sec 508 2)</i>		5. DATE OF DETERMINATION July, 1968		FEE RECEIVED <b>\$ 750</b>	CHARGES
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <b>Corporation</b>		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P. O. Box 3091 Modesto, California 95353		8. TELEPHONE AREA CODE AND NUMBER 209-529-7500	
			10. STATE OF INCORPORATION Delaware		11. DATE OF INCORPORATION 8-10-28

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:  
Tom V. Williams  
FMC Corporation  
Niagara Chemical Division  
P. O. Box 3091  
Modesto, Calif. 95353

13. CHECK BOX 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? **1**

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).

June 9, 1972  
(DATE)

June 9, 1972  
(DATE)

FMC Corporation  
Niagara Chemical Division  
Seed Department  
(SIGNATURE OF APPLICANT) **I**

*Tom V. Williams Seed Dept.*  
(SIGNATURE OF APPLICANT)

## FMC CORPORATION



NIAGARA CHEMICAL DIVISION

 SEED DEPARTMENT • BOX 3091, MODESTO, CALIFORNIA 95353 • TELEPHONE: (209) 529-7500  
 CABLE ADDRESS: RESEARCH MODESTO
EXHIBIT B

## BOTANICAL DESCRIPTION OF THE VARIETY

The seed of ~~NGX-006~~<sup>GEM</sup> are white and only slightly truncate. Seed are oval in cross section and more than twice as long as wide, thereby being placed in a medium shape class.

Seedlings are vigorous and possess no anthocyanin in leaves, stems or leaf petioles.

Plants are determinate with bush size slightly smaller than Kinghorn Wax. Leaves are dark green in color, flat and glossy, of medium size with pointed tips. Flowers are borne singly on racemes having 3 blossoms, two of which bloom almost simultaneously and the other opening 2-3 days later. Plants stand up well and resist lodging with a heavy load of fruit.

The sieve sizes of ~~NGX-006~~<sup>GEM</sup> wax bean pods at optimum maturity are intermediate between those of Kinghorn Wax and Earliwax. It has been reported that the best quality of ~~NGX-006~~<sup>GEM</sup> is obtained when harvested at 75-80% 4's and under.

Comparative photographs will be provided as soon as possible.



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 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 checked="" 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.

FMC Corporation

Agricultural Chemical Division  
1524 McHenry Avenue  
Modesto California 95353  
(209) 529 7500

PV # 72145



EXHIBIT D

DATA INDICATIVE OF NOVELTY

~~NGX-806~~<sup>GEM</sup> has been found to be a distinct and unique wax bean type when grown at various locations in the U.S., not resembling any commercially grown variety. Since this line was selected from Earliwax stock originally selected in Maine, ~~NGX-806~~<sup>GEM</sup> most closely resembles Earliwax. The most distinctive features of ~~NGX-806~~<sup>GEM</sup> compared to Earliwax are its pod shape and length. The following statistics on 100 pod samples of each variety support this distinction:

Pod Transverse Shape (4 or 5 sieve)

<del>NGX-806</del> <sup>GEM</sup>	<u>Earliwax</u>
9% semi-oval	9% oval
39% oval	48% round
50% round	41% oblate
2% oblate	

SNIPPED POD LENGTH

	<u>Sieve Size</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
<del>NGX-806</del> <sup>GEM</sup>		3.00	4.00	4.37	5.00	5.37
<u>Earliwax</u>		2.80	3.65	4.00	4.25	4.75

A 1971 Colorado report indicates that pods of ~~NGX-806~~<sup>GEM</sup> are straighter and smoother than Earliwax. ~~NGX-806~~<sup>GEM</sup> rated an A or above average pod appearance whereas Earliwax rated a C or below average grade. This feature is supported by

the attached comparative photograph taken in an Arkansas trial.

Waxing uniformity of ~~NGX-806~~<sup>GEM</sup> has been observed to be superior to Earliwax. To quote a 1973 New Jersey research report "Pods of ~~NGX-806~~<sup>GEM</sup> are of an excellent even color beginning in sieve 3, becoming very satisfactory in sieve-4". "Pods of Earliwax are of an acceptable color despite a sprinkling of sutures and necks exhibiting some greenish cast".

Seed development of ~~NGX-806~~<sup>GEM</sup> and Earliwax is moderately rapid but from sieve size 5 pods, the percent seed of ~~NGX-806~~<sup>GEM</sup> averages 9.4 and that of Earliwax 14.1.

The plant habit of ~~NGX-806~~<sup>GEM</sup> is slightly more sprawling than Earliwax with mature plants averaging 16" X 27" for ~~NGX-806~~<sup>GEM</sup> and 16" X 23" for Earliwax.

Processed pod color of ~~NGX-806~~<sup>GEM</sup> is slightly lighter than Earliwax. The only available data to support this statement is from an Erie County, New York report which on a scale of 1-5 for bright - pale yellow pod color rated ~~NGX-806~~<sup>GEM</sup> as 2.2 and Earliwax as 1.5.

Yields of ~~NGX-806~~<sup>GEM</sup> and Earliwax are comparable. On the average from trials in New Jersey, Wisconsin, New York and Colorado, ~~NGX-806~~<sup>GEM</sup> yielded 3.6 tons/acre and Earliwax 3.9 tons/acre.

PV # 72145

**FMC CORPORATION**

Reply to: P. O. Box 2303  
El Merido, California 95618  
Telephone: (916) 738-1882



NIAGARA CHEMICAL DIVISION

SEED DEPARTMENT • BOX 3091, MODESTO, CALIFORNIA 95353 • TELEPHONE: (209) 529-7500  
CABLE ADDRESS: RESEARCH MODESTO

EXHIBIT E

STATEMENT OF THE BASIS OF APPLICANT'S OWNERSHIP

The applicant is the employer of the plant breeding research personnel responsible for developing <sup>GEM</sup>~~NGX-806~~ WAX BEAN.



SCHEDULE A

PLANT VARIETY PROTECTION CERTIFICATES

<u>Certificate No.</u>	<u>Name of Kind</u>	<u>Issued DATE</u>	<u>Name of Variety</u>
7200145	Bean	741030 <sup>1st</sup>	Gem
7200146	Watermelon	741115 <sup>ENB</sup>	Charleston '76
7600032	Lettuce	770915 <sup>ENB</sup>	Vanagara
8 R/S 7600028	Muskmelon	790531 R/S	Valley Gold

## ASSIGNMENT

WHEREAS, Moran Seeds, Inc. ("Moran"), a corporation duly organized and existing under the laws of the State of Delaware is the owner of United States Plant Variety Protection Certificates (the "Certificates"), listed in Exhibit A hereto and Pending United States Plant Variety Protection Applications (the "Applications"), listed in Exhibit B hereto; and

WHEREAS, in accordance with a Technology Transfer Agreement (the "Transfer Agreement") among Celanese Corporation ("Celanese"), Moran Seeds, Inc., Joseph Harris Company, Inc., CelPril Industries, Inc., Harris Moran International B.V. ("Sellers"), Virginia Chemicals, Inc., Les Produits Organiques du Santerre-Orsan S.A. ("Orsan"), HMS Acquisition Inc., CP Acquisition Inc., and Exploitiemaatschappij Wolwevershaven B.V., dated January 10, 1985, and a Purchase Agreement dated December 7, 1985, as amended, among Celanese, Sellers and Orsan, Orsan has purchased from Moran said Certificates and Applications.

NOW, THEREFORE, in accordance with said Transfer Agreement and Purchase Agreement, Moran assigns to Orsan all of its rights, title and interest in and to said Certificates and Applications.

Moran hereby authorizes Orsan to apply for and obtain the recordation of this Assignment. Moran agrees that it shall, without further consideration, promptly and duly cause to be performed such lawful acts and execution of any other documents as Orsan may reasonably request in order for Orsan to obtain the full benefits of this Assignment and to permit Orsan to be duly recorded in each office, bureau and tribunal in the appropriate jurisdiction as the registered owner or proprietor of each of the rights hereby assigned. Such instruments and documents shall include, without limitation, such applications, affidavits and other documents for filing in such jurisdictions as Orsan may from time to time reasonably request.

By these presents Orsan does hereby accept this Assignment and authorize the recording thereof with the appropriate authorities aforesaid.

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 3 NUMBER FLOWERS PER RACEME

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

5 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) \_\_\_\_\_

14 CM. LENGTH 08 MM. WIDTH (Between sutures) 08 MM. THICKNESS 10  $\frac{\text{WIDTH}}{\text{THICKNESS}} \times 10$

4 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

2 Constrictions: 1 = NONE 2 = SLIGHT 3 = DEEP 2 Spur: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED

1 Surface: 1 = SHINY 2 = DULL 1 Surface: 1 = SMOOTH 2 = BLISTERED

1 Pod flesh: 1 = LIGHT 2 = DARK 1 Pod flesh: 1 = FIRM 2 = WATERY

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

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

5 NUMBER OF SEEDS PER POD 20 NUMBER PODS PER PLANT (Once over harvest)

14 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  
5 = BROWN 6 = PINK 7 = RED 8 = PURPLE  
Secondary color: 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

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

9. SEED SHAPE AND SIZE:

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

2 Cross section: 1 = ELLIPTICAL 2 = OVAL 32 GM. WEIGHT PER 100 SEEDS  
3 = CORDATE 4 = ROUND

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

06 MM. WIDTH (Dorsal to ventral) 05 MM. THICKNESS (Side to side)

13 MM. LENGTH 012  $\frac{\text{WIDTH}}{\text{THICKNESS}} \times 10$

5

IN WITNESS WHEREOF, the parties have caused this Assignment to be executed by its proper officers thereunto duly authorized this 10<sup>th</sup> day of January, 1985.

MORAN SEEDS, INC.,  
Assignor

By: David A. Jenkins  
David A. Jenkins  
Vice President

LES PRODUITS ORGANIQUES DU  
SANTERRE-ORSAN S.A.  
Assignee

By: [Signature]  
Title: Attorney-in-fact

STATE OF New York  
COUNTY OF New York

Before me, a Notary Public, in and for said County, personally appeared David Jenkins who acknowledged that he is Vice President of Moran Seeds, Inc., the corporation which executed the foregoing instrument and who acknowledged he signed said instrument on behalf of said corporation by authority of its Board of Directors; and that said instrument is the free corporate act and deed of said Moran Seeds, Inc.

Sworn before me at New York this 10th day  
of January, 1985

Alex C. Lengyel  
NOTARY PUBLIC

(Notary Public)

My Commission Expires:

ALEX C. LENGYEL  
Notary Public, State of New York  
Qualified Jan. 1, 1985  
Commission Expires March 30, 1986

STATE OF New York  
COUNTY OF New York

Before me, a Notary Public, in and for said County, personally appeared Patrice G. Herday who acknowledged that he is ~~Patrice G. Herday~~ of Les Produits Organiques du Santerre-Orsan S.A., the corporation which executed the foregoing instrument and who acknowledged he signed said instrument on behalf of said corporation by authority of its Board of Directors; and that said instrument is the free corporate act and deed of said Les Produits Organiques du Santerre-Orsan S.A.

Sworn before me at New York this 10th  
day of January, 1985.

Alfred C. Lengyel  
NOTARY PUBLIC

(Notary Public)

My Commission Expires:

ALFRED C. LENGYEL  
Notary Public, State of New York  
No. 1234567  
My Commission Expires: 12/31/1986

United States Plant Variety Protection Certificates

<u>Cert. No.</u>	<u>Date Issued</u>	<u>Kind</u>	<u>Variety Name</u>	<u>Owner</u>
7200145	10/30/74	Garden Bean	Gem	Moran Seeds, Inc.
7200146	11/15/74	Watermelon	Charleston 76	Moran Seeds, Inc.
7400013	5/9/74	Lettuce	Calmaria	Moran Seeds, Inc.
7400014	6/19/74	Lettuce	Cal K-60	Moran Seeds, Inc.
7400071	6/19/74	Lettuce	Cabrillo	Moran Seeds, Inc.
7600032	9/15/77	Lettuce	Vanagara	Moran Seeds, Inc.
7600039	12/8/77	Lettuce	Morangold	Moran Seeds, Inc.
7800028	5/31/79	Muskmelon	Valley Gold	Moran Seeds, Inc.
7900038	1/14/82	Garden Bean	Blue Duet	Moran Seeds, Inc.
7900039	7/15/82	Snapbean	Score	Moran Seeds, Inc.
7900066	11/27/79	Cauliflower	Snowball 123	Moran Seeds, Inc.
8000020	7/31/80	Muskmelon	Top Net	Moran Seeds, Inc.
8000082	12/10/81	Lettuce	Delmar	Moran Seeds, Inc.
8200019	10/28/82	Onion	OMO M	Moran Seeds, Inc. Oshita, Inc.
8200061	3/24/83	Watermelon	Sun Gold	Moran Seeds, Inc.
8200104	10/28/82	Tomato	Advantage	Moran Seeds, Inc.
8200105	11/26/82	Tomato	Moran 3053	Moran Seeds, Inc.
8200027	4/23/83	Lettuce	El Toro	Moran Seeds, Inc.
8100172	9/29/83	Lettuce	Van Mor	Moran Seeds, Inc.
8300113	8/31/84	Muskmelon	Top Net SR	Moran Seeds, Inc.

Pending United States Plant Variety Protection Applications

<u>Application No.</u>	<u>Filing Date</u>	<u>Kind</u>	<u>Variety Name</u>	<u>Owner</u>
8100167	9/9/81	Lettuce	Yuma	Moran Seeds, Inc.
8300155	7/18/83	Celery	Bishop	Moran Seeds, Inc.
8300156	7/18/83	Celery	Deacon	Moran Seeds, Inc.
8300172	9/1/83	Tomato	Diego	Moran Seeds, Inc.
8400013	12/1/83	Lettuce	Greenfield	Moran Seeds, Inc.