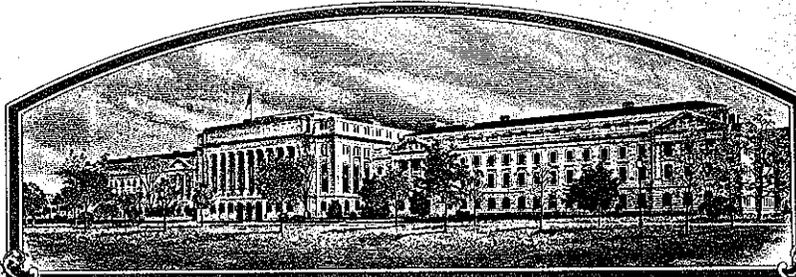


No.



8000111

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Keystone Seed Co., Inc.

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

BEAN

'Keypgold'



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 October in the year of our Lord one thousand nine hundred and eighty.

Attest:

*Samuel R. Gentry*  
Commissioner  
Plant Variety Protection Office  
Grain Division

*W. B. Gentry*

**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		1b. VARIETY NAME		FOR OFFICIAL USE ONLY	
		Keygold		PV NUMBER	
				8000111	
2. KIND NAME		3. GENUS AND SPECIES NAME		FILING DATE	
Snapbean		Phaseolus vulgaris		5/12/80	
				TIME	
				12:00 A.M.	
				P.M.	
4. FAMILY NAME (BOTANICAL)		5. DATE OF DETERMINATION		FEE RECEIVED	
Leguminosae		September 1979		\$ 500.00	
				\$ 250.00	
				DATE	
				5/12/80	
				9/17/80	
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	
Keystone Seed Co. Inc.		P.O. Box 1438 Hollister, Ca 95023		408-637-5782	
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		10/19/76
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:					
Albert E. Braun, Keystone Seed Co. Inc. P.O. Box 1438, Hollister, Ca 95023					

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)

13B. Exhibit B, Novelty Statement.

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  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

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES?  YES  NO (If "Yes," give name of countries and dates.)

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES?  YES  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?  YES  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.

4/28/80  
 (DATE)

James W. Chaney  
 (SIGNATURE OF APPLICANT)  
 President, Keystone Seed Co.

00:21  
MAY 1 2 1981

## 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.

APPLICATION FOR PLANT VARIETY PROTECTION

Bush Wax Bean, 'Keygold'

8000111

Exhibit 13 A

Origin and Breeding History of the Variety

Keygold originated from a hand pollinated cross between 'Rebel' and 'Goldcrop.'

Rebel was developed by Keystone Seed Co. from a cross of Provider x Harvester. Rebel is a compact bush type of fairly early maturity. The pods are round, very straight, and pod set is concentrated from center to high in plant. Color of the pods is medium green. Rebel is resistant to bean common mosaic.

Goldcrop was developed by Dr. Mat Silbernagel at the U.S.D.A. Experiment Station in Prosser, Washington. Plants are compact and pods are borne high on a strong upright bush. It is a wax type with pods of a deep yellow color. Pods are round and straight when moisture is adequate but tend to curve under slight moisture stress. Goldcrop is resistant to Curly Top virus, bean common mosaic, and Summer Death disease. Maturity is mid-season.

Cross of Rebel x Goldcrop was made in the winter of 1974. In the summer of 1974 the F-1 seed was sown at Hollister, Ca. The progeny were all green podded. In 1975 the F-2 plants segregated to both green and wax podded plants. Two vigorous wax podded plants, of early maturity, with straight, long, round pods concentrated high in the plant, were selected for increase.

The F-3 seed was sown at Hollister in the summer of 1976. All plants produced waxed pods of a good uniform yellow color. Plants were compact, upright; pods round and straight with good seed fill. There were no variants from the desired type.

The F-4 seed was sown in Hawaii in the winter of 1977. Plants were taller and more spreading than experienced in California, but no variants were observed.

The F-5 seed was sown in the summer of 1977 at Hollister, Ca. All plants were of the desired type except four with oval to flat pods.

The F-6 plants, grown in the summer of 1978 were similar to the F-5. The only variants were six plants with flat pods and one plant with green pods.

In the 7th generation, in an acre with an estimated population of 90,000 plants, there were 10 plants with green pods and 40 plants with flat pods, giving a frequency of one green podded plant in 9000 and one flat podded plant in 2250.

Due to parentage of this variety, roguing of the green and flat podded types is required.

The genetic makeup of the variety was stabilized in the sixth generation.

APPLICATION FOR PLANT VARIETY PROTECTION

Bush Wax Bean 'Keygold'

8000111

Exhibit 13 B

Data Indicative of Novelty

Novelty is based on the unique combination of the following characters:

Keygold closely resembles Earliwax, except that (1) pods are longer,  
(2) it is resistant to Curly Top virus.

(1) Pod Length

Sieve size	<u>KEYGOLD</u>		<u>EARLIWAX</u>	
	Mean length	95% Conf. level	Mean length	95% Conf. level
2	9.8	+ 1.1 - 1.1	7.5	+ 1.3 - 1.3
3	11.5	+ 1.2 - 1.2	11.0	+ 0.9 - 0.9
4	13.3	+ 1.1 - 1.1	12.7	+ 0.6 - 0.6
5	14.5	+ 0.7 - 0.7	13.7	+ 0.6 - 0.6
6	15.3	+ 0.4 - 0.4	14.5	+ 0.3 - 0.3

From the average of all sieve sizes, Keygold pods are 1 centimeter longer than Earliwax.

(2) Keygold was found to be resistant to Curly Top virus in tests by Dr. Mat Silbernagel at the U.S.D.A. Experiment Station at Prosser, Wa. Earliwax is susceptible to the virus.

COPIES OF THIS DOCUMENT ARE AVAILABLE FROM THE NATIONAL LIBRARY OF MEDICINE, 5600 DUKE STREET, BETHESDA, MARYLAND 20894

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) Keystone Seed Company Inc.	FOR OFFICIAL USE ONLY	
	PVPO NUMBER	8000111
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O. Box 1438 Hollister, Ca 95023	VARIETY NAME OR TEMPORARY DESIGNATION	
	Keygold	

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: Spectral Reflectance. The location of test area is Hollister California. Please answer questions appropriate for your variety if the information is available.

1. TYPE:

1 = Field (dry-edible)      2 = Garden

2. MARKET MATURITY:

Days to edible pods        Days to green shells

Days to dry seeds

Heat units to edible pods          Heat units to green shells

Heat units to dry seeds

No. days earlier than .....

..... Same as ...

No. days later than .....

- 1 = Tendercrop
- 2 = Kentucky Wonder
- 3 = Kinghorn Wax
- 4 = White Kidney
- 5 = Michelite 62
- 6 = Dwarf Horticultural
- 7 = Bush Blue Lake 290
- 8 = Other (specify below)  
Earliwax
- 9. Top-notch

3. PLANT:

1 = Determinate      2 = Indeterminate

cm height

cm shorter than .....

..... Same as ...

cm taller than .....

cm spread

Number primary branches near base

cm narrower than .....

..... width same as ...

cm wider than .....

comparison variety from above

Branching habit:  
1 = compact    2 = open

Main stalk: 1 = brittle    2 = wirey

1 = stout    2 = thin

3. PLANT: (Cont'd)

8000111

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

4 Bush form (illustrated below):



1 = spherical bush form

2 = stem bush form

3 = wide bush form

4 = high bush form

5 = other (specify) \_\_\_\_\_

4. LEAVES:

1 1 = smooth 2 = wrinkled

1 1 = dull 2 = glossy

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

1 Color: 1 = light green (as light or lighter than Bountiful) 2 = medium green  
3 = dark green (as dark or darker than Bush Blue Lake 290)

5. FLOWERS:

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

4  7 Days to 50% bloom

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

4 Exterior color: 1 = light green (as light or lighter than Bountiful)  
2 = medium green  
3 = dark green (as dark or darker than Bush Blue Lake 290)  
4 = light yellow (Brittlewax)  
5 = golden yellow (Cherokee Wax)  
6 = green-red variegated (Horticultural)  
7 = other (specify) \_\_\_\_\_

% Sieve size distribution at optimum maturity for non-flat pods

Note:

1 = 4.76 mm to 5.76 mm      4 = 8.34 mm to 9.53 mm  
2 = 5.76 mm to 7.34 mm      5 = 9.53 mm to 10.72 mm  
3 = 7.34 mm to 8.34 mm      6 = 10.72 mm or larger

1	2	3	4	5	6
1.8	9.2	14.5	32.5	32	10

3 sieve  1  2 cm length       0  7 mm width       0  7 mm thickness

4 sieve  1  4 cm length       0  8 mm width       0  9 mm thickness

5 sieve  1  5 cm length       0  8 mm width       1  0 mm thickness

6 sieve  1  5 cm length       0  9 mm width       1  1 mm thickness

6. FRESH PODS: (Cont'd)

8000111

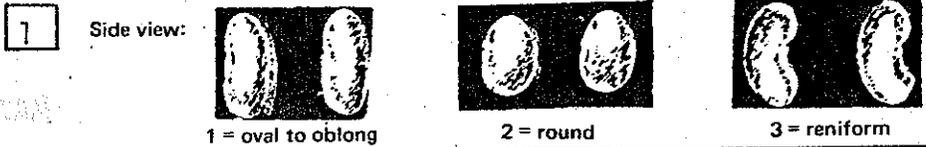
- 3 Cross section pod shape: 1 = flat 2 = oval 3 = round 4 = heart
- 1 Creaseback: 1 = present 2 = absent
- 2 Pubescence: 1 = none 2 = sparse 3 = considerable
- 1 Spur: 1 = straight 2 = slightly curved 3 = curved
- 1 Constrictions: 1 = none 2 = slight 3 = deep
- 1 Pod flesh: 1 = light 2 = medium 3 = dark
- 1 0 mm spur length
- 2 Fiber: 1 = none 2 = sparse 3 = considerable
- 6 Number of seeds per pod
- 1 Surface: 1 = smooth 2 = rough
- 2 Suture string: 1 = present 2 = absent
- 2 Seed development (Snap Bean): 1 = slow 2 = medium 3 = fast
- 1 Machine harvest: 1 = adapted 2 = not adapted
- 6 Pod flavor: (1) Standard (Tendercrop)  
 (2) Mild Blue Lake (BBL 274)  
 (3) Strong Blue Lake (Pole FM1)  
 (4) Mild Romano (Roma)  
 (5) Strong Romano (Pole Romano)  
 (6) Other (specify) Earliwax

7. SEED COAT COLOR:

- SEA*  
*800604*  12 1 = Monochrome 2 = Polychrome  1 1 = shiny 2 = dull
- 1 Primary color: 1 = white 2 = yellow 3 = buff 4 = tan
- 11 Secondary color: 5 = brown 6 = pink 7 = red 8 = purple Yellow  
 9 = blue 10 = black 11 = other (specify)
- 1 Color Pattern: 1 = none 2 = splashed 3 = mottled 4 = striped 5 = flecked 6 = dotted
- 1 Secondary color location: 1 = hilar ring 2 = ventral surface  
 3 = sides 4 = dorsal surface  
 5 = not restricted to any area 6 = combination of location (specify below)
- 2 Hilar ring on colored seeds: 1 = absent 2 = narrow 3 = butterfly shaped

8. SEED SHAPE AND SIZE:

- 1 Hilum view: 1 = elliptical 2 = oval 3 = round  4 Cross section: 1 = elliptical 2 = oval 3 = cordate 4 = round



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

8000111

2 1 = truncate ends 2 = rounded ends

2  8 gm/100 seed

0  5 gm/100 seed lighter than.....  3

gm/100 seed same as ....

comparison variety from page one.

0  3 gm/100 seed heavier than .....  8

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

1 Flowers

1 Stems

1 Pods

1 Seeds

1 Leaves

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

0 Anthracnose (specify race below) \_\_\_\_\_

0 Fuscous blight

1 Rust (specify race below) \_\_\_\_\_

0 Red node virus

0 Powdery mildew

0 Pod mottle virus

1 Fusarium root rot

2 Bean common mosaic virus (specify strain below)  
Double D Witte type

0 Pythium root rot

0 Mosaic mottle

1 Rhizoctonia root rot

0 Black root

0 Pythium wilt

1 Bean yellow mosaic virus

0 Angular leaf spot

2 Curly top

0 Bacterial wilt

2 Other (specify below)  
N.Y. 15 Sanilac type

1 Halo blight (specify race below) \_\_\_\_\_

11. INSECT RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)

0 Aphids

0 Root knot nematode

0 Leaf hopper

0 Seed corn maggot

0 Lygus

0 Thrips

0 Pod borer

0 Weavils

Other (specify below) \_\_\_\_\_

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

0 Heat

0 Cold

0 Drought

2 Air pollution

13. COMMENTS:

APPLICATION FOR PLANT VARIETY PROTECTION

Exhibit 13 D

8000111

Additional Description of the Variety

Keygold is a bush wax bean which has a strong, compact plant structure with pods concentrated in the upper portion of the plant. Plant habit is well adapted to mechanical harvesting.

Except for pod length and resistance to Curly Top virus, Keygold resembles Earliwax in respect, to seed plant size, leaflet size, inflorescence, pod color, pod shape, maturity, and resistance to common mosaic and N.Y. 15 virus.

The seeds of Keygold are white with a tint of yellow around the hilum. The seed shape is elliptical in hilar view and mostly oval to oblong in side view, however, some seed is slightly reniform. Seed weight is slightly higher in Keygold than Earliwax when grown side by side, but this may depend on moisture content.

The seedling stages are similar in both varieties and in mature plants, height and width are also quite similar.

	<u>KEYGOLD</u>		<u>EARLIWAX</u>
	95% Conf. level		95% Conf. level
Mean height	51cm $\pm 3$		49 cm. $\pm 4$
Mean width	46 $\pm 5$		45 $\pm 5$

Inflorescence is similar in both varieties. Terminal racemes average 9 cm. in length. Lower racemes are shorter. Flowers on terminal racemes range from 7-9. The number of primary branches varies from 2-3.

The center leaflets of mature plants are approximately the same size in both varieties.

	<u>KEYGOLD</u>	<u>EARLIWAX</u>
Mean length	11 cm.	11.9 cm.
Mean width	8.3	8.2

The color of the 4 sieve pod of Keygold and Earliwax is the same. Measurement by spectral reflectance gave the following tristimulus values and trichromatic coefficients.

	<u>KEYGOLD</u>	<u>EARLIWAX</u>
X	53.308	54.338
Y	56.258	56.797
Z	26.518	26.427
x	0.391	0.395
y	0.413	0.413

The dominant wave length is 5760 Angstroms and excitation purity 40% for both varieties.

References:

Color: Principles of Color Technology  
Billmeyer & Saltzman  
Bausch and Lomb Operations Manual

Statistics: Statistical Methods, G.W. Snedecor

Heat unit requirement to market stage is approximately the same for both varieties. Using a 50 degree F. base, the requirement for Keygold is 1036 units with a 95% confidence interval of  $\pm 45$ . For Earliwax the requirement is 1096 with a confidence interval of  $\pm 60$ . Two other wax varieties Goldcrop and Goldrush mature a day later than Keygold.

A full complement of seed development is usual in mature pods of Keygold even under slight moisture stress. In Earliwax and Goldcrop, under slight moisture stress, ovules at the proximal end of the pods usually abort and the pods become misshapen.

Keygold, like Earliwax, is resistant to bean common mosaic and N.Y. 15 virus. Isolates for testing were obtained from Dr. R. Hampton, U.S.D.A., Oregon State University. Type form for bean common mosaic wax from the variety Double D Witte and for N.Y. 15 from Sanilac. Inoculation on Sutter Pink gave positive results with the two types, but inoculation on Keygold was negative.

In Rust trial nurseries, Dr. J.P. Meiners reported that Keygold was susceptible to three strains and also to natural inoculations in 4 locations. Dr. Meiners also reported that Keygold was resistant to air pollution.

Keygold has performed well in trial plantings in Oregon for two seasons. In comparison to Earliwax, pods were consistantly straighter and of a more even maturity. In comparative trials in New Jersey at Rutgers Experiment Station the pods were straighter than Goldrush and maturity was a day earlier.

DEC 1 1961  
10000111

PLANT VARIETY PROTECTION CERTIFICATE

ASSIGNMENT

The Sunseeds Division of Agrigenetics Corporation, a Delaware corporation having a place of business at 3575 Mitchell Lane, Boulder, Colorado 80301 ("Agrigenetics"), represents that it is the owner of the entire right, title and interest in and to the plant variety protection certificates and applications for plant variety protection certificates shown below.

For good and valuable consideration, receipt of which is hereby acknowledged, Agrigenetics hereby assigns to UF Genetics, Inc., a Delaware corporation having a place of business at 9800 Fairview Road, Hollister, California 95024, Agrigenetics' entire right, title and interest in and to the following plant variety protection certificates and applications therefore, together with all Agrigenetics' rights to the sexually reproduced plants that are the subject of such certificates and applications:

I. Registered Certificates

<u>Title</u>	<u>Certificate Number</u>	<u>Date</u>
Empress	7900045	4/15/82
9014	Ap8100174	9/28/81
9293	Ap8100175	9/28/81
9400	Ap8200007	10/22/81
Paymaster	7600058	12/7/77
Lakeland	7600059	1/26/78
Triumph	7600061	12/30/77
Broker's Choice	8100175	4/28/83
Profit Maker	8100174	4/28/83
Shannon	8200007	4/28/83
Sunrise	7100029	6/24/74
Lake Shasta	7100030	8/12/74
Lake Erie	7100031	8/12/74
Rebel	7100033	9/30/74
Lake Superior	7100034	5/21/74
Miami	7100036	2/28/74
Lake Geneva	7200068	5/21/74
Scanion	7300001	11/15/74
Picoverde	7300016	4/10/73
Raider	7400069	7/26/74

Lake Largo	7400104	9/30/74
Lake Seneca	7500096	11/24/75
Chaparral	7600052	5/16/77
Costaverde	7600053	8/24/77
Gustoverde	7600054	8/24/77
Mesaverde	7600055	5/31/77
Conquest	7700058	7/26/77
Commander	7900067	7/26/79
Keygold	8000111	10/16/80
Snapbean, Exp. 163	7600058	12/7/77
Snapbean, Exp. 195	7600059	1/6/78
'Green Genes' Bean	7600060	12/7/77
Snapbean, Exp. 116-0	7600061	12/30/77
Mikado (AVX 450)	Ap8400037	12/30/83
Mystro	8500064	4/16/85

## II. Pending Certificate Applications

<u>Title</u>	<u>Application Number</u>	<u>Filing Date</u>
Cajun Queen	Pending	--
Mendota	Pending	--
Sunset	Pending	--
Alpine	Pending	--
Polaris	Pending	--

AGRIGENETICS CORPORATION

By: Murray Colvin  
 Title: Executive Vice President

COMMONWEALTH OF MASSACHUSETTS )

County of Suffolk )

On this 30<sup>th</sup> day of April, 1986, before me appeared Murray Watson, the person who signed this instrument, who acknowledged that he signed it as a free act on behalf of Agrigenetics Corporation.

Susan J. Haherty  
Notary Public  
My Commission Expires: 11/21/90

June 7, 1988  
Kenneth H. Evans  
Page 2

Title	Certificate No.	Date
Miami	7100036	2/28/74
Lake Geneva	7200068	5/21/74
Scanion	7300001	11/15/74
Picoverde	7300016	4/10/73
Raider	7400069	7/26/74
Lake Largo	7400104	9/30/74
Lake Seneca	7500096	11/24/75
Chaparral	7600052	5/16/77
Costaverde	7600053	8/24/77
Gustoverde	7600054	8/24/77
Mesaverde	7600055	5/32/77
Conquest	7700058	7/26/77
Commander	7900067	7/26/79
Keygold	8000111	10/16/80
Snapbean, Exp. 163	7600058	12/7/77
Snapbean, Exp. 195	7600059	1/6/78
'Green Genes' Bean	7600060	12/7/77
Snapbean, Exp. 116-0	7600061	12/30/77
Mikado (AVX 450)	Ap8400037	12/30/83

Sincerely,



Gene Hookstra  
Vice President, Research

GH/mo

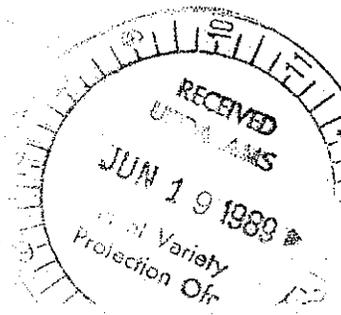
enc: Check  
Copy of Correspondence from K.H. Evans

8000111

BILL OF SALE AND ASSIGNMENT

FOR VALUE RECEIVED, Sunseeds Genetics Inc, a Delaware Corporation, with its principal offices at 2320 Technology Parkway, Hollister, California, ("Sun") does hereby sell, transfer, assign and convey to Rogers Brothers Seed Company, a Delaware Corporation with principal offices at 1755 Westgate Drive, Boise, Idaho, ("Rogers") the following:

1. All Sun's intangible assets relating to its pea, snap pea, garden bean, runner bean, cow pea, dry bean, and lima bean business ("Products").
2. All plant variety protection rights and all plant variety protected materials along with the rights to use the names thereof including all varieties listed on Schedule A attached hereto and incorporated herein by this reference.
3. All proprietary plant varieties and all other proprietary information relating thereto which are related to Products.
4. All patents, patent application and patent applications relating to the Products.
5. All research property relating to Products including notebooks, findings, pedigrees, records of experiments and their results, seed stocks, know how, techniques, all other proprietary information in whatever form stored, germ plasm, the germ plasm uses, seed samples and their coding and indexing methods.
6. All trademarks, trade names, service marks and copyrights which apply to the Products excluding any name which includes the corporate name of Sun and its affiliates.
7. Any and all other intangible assets and property rights relating to Products not specifically mentioned herein.



SUNSEEDS GENETICS, INC.  
 PLANT VARIETY PROTECTION - USA  
 AS OF 8/10/88

Variety	Cert #	Issued	Expires	Issued To
<b>Peas</b>				
Alpine	8500101	09/27/85	09/27/03	Sunseeds, A Div. of Agri. Sunseeds Genetics, Inc.
Blizzard	8700022	06/30/87	06/30/05	
Mendota	AP 8500163	05/30/85		
Polaris	AP 8600017	11/12/85		Agrigenetics Corporation
Sunset	8300074	04/30/84	04/30/02	
Titania	AP 8200008	10/26/81		
<b>Beans</b>				
Brokers Choice	8100175	04/28/83	04/28/01	Agrigenetics Corporation
Conquest	7700058	07/26/77	07/26/94	Keystone Seed Co., Inc.
Empress	7900045	04/15/82	04/15/00	Agrigenetics Corporation
Green Genes	7600060	12/07/77	12/07/94	Northrup King
Keygold	8000111	10/16/80	10/16/97	Keystone Seed Co., Inc.
Lake Erie	7100031	08/12/74	08/12/91	Keystone Seed Co., Inc.
Lake Geneva	7200068	05/21/74	05/21/91	Keystone Seed Co., Inc.
Lake Largo	7400104	09/30/74	09/30/91	Keystone Seed Co., Inc.
Lake Seneca	7500096	11/24/75	11/24/92	Keystone Seed Co., Inc.
Lake Shasta	7100030	08/12/74	08/12/91	Keystone Seed Co., Inc.
Lake Superior	7100034	05/21/74	05/21/91	Keystone Seed Co., Inc.
Lakeland	7600059	01/26/78	01/26/95	Agrigenetics Corporation
Miami	7100036	02/28/74	02/28/91	Keystone Seed Co., Inc.
Mikado (AVX 450)	8400037	03/31/87	03/31/05	Sunseeds Genetics, Inc.
Paymaster	7600058	12/07/77	12/07/94	Agrigenetics Corporation
Profit Maker	8100174	04/28/83	04/28/01	Agrigenetics Corporation
Raider	7400069	07/26/74	07/26/91	Keystone Seed Co., Inc.
Rebel	7100033	09/30/74	09/30/91	Keystone Seed Co., Inc.
Shannon	8200007	04/28/83	04/28/01	Agrigenetics Corporation
Sunrise	7100029	06/24/74	06/24/91	Keystone Seed Co., Inc.
Triumph	7600061	12/30/77	12/30/94	Agrigenetics Corporation

AP = PVP applied for

DATED this the 26 day of May, 1989.

SUNSEEDS GENETICS INC:

BY [Signature]  
its: EXECUTIVE VICE PRESIDENT

ATTEST:

[Signature]

State of CALIFORNIA       )  
  ) ss  
County of SAN BENITO     )

On this 26th day of May, 1989, before me, the undersigned Notary Public, personally appeared WILLIAM FRAZIER and ROBERT VAN MARTER known to me to be the EXECUTIVE V.P. and V.P. OF FINANCE respectively of the corporation that executed the instrument, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal, the day and year in this certificate first above written.



Cindy J Actis

Notary Public  
Residing at: Hollister, CA  
My commission expires: 8/7/91



From Technology To Life

P.O. Box 1438, 2320 Technology Parkway, Building 11 Suite A, Hollister, CA 95024-1438 USA 408/636-9505 TWX 910-3720254

June 7, 1988

Kenneth H. Evans, Commissioner  
Plant Variety Protection Office  
National Agriculture  
Library Building, Room 500  
Beltsville, MD 20705

Re: Change of Assignment.

Dear Mr. Evans:

This letter is in reference to your correspondence to me, dated July 14, 1987. I wish to make it clear that this change of assignment is to indicate a name change only, from U.F. Genetics, Inc. to Sunseeds Genetics, Inc.

Also, in reference to 'Mystro' tomato, have Item 1 read Sunseeds Genetics, Inc. and issue the certificate to Sunseeds Genetics, Inc.

Enclosed please find a check in the amount of \$170.00 to cover the cost of changing the certificates.

Title	Certificate No.	Date
Empress	7900045	4/15/82
9014	Ap8100174	9/28/81
9293	Ap8100175	9/28/81
9400	Ap8200007	10/22/81
Paymaster	7600058	12/7/77
Lakeland	7600059	1/26/78
Triumph	7600061	12/30/77
Broker's Choice	8100175	4/28/83
Profit Maker	8100174	4/28/83
Shannon	8200007	4/28/83
Sunrise	7100029	6/24/74
Lake Shasta	7100030	8/12/74
Lake Erie	7100031	8/12/74
Rebel	7100033	9/30/74
Lake Superior	7100034	5/21/74

**SUNSEEDS**