No. 7500096

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Keystone Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'Lake Seneca'

PLANT VARIETY PROTECTION OFFICE · U.S. DEPARTMENT OF AGRICULTURE

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* 24th *day of* November *in the year of our Lord one thousand nine hundred and* seventy-five

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(2-12-71)

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

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION 'LAKE SENECA' ~~(Temporary) 2320~~ R/S	2. KIND NAME Bush Bean	FOR OFFICIAL USE ONLY PVPO NUMBER 7500096	
3. GENUS AND SPECIES NAME Phaseolus vulgaris	4. FAMILY NAME *(Botanical)* Leguminosae	FILING DATE 6/2/75	TIME 2 ~~A.M.~~ P.M.
	5. DATE OF DETERMINATION August 1973	FEE RECEIVED $ 750	CHARGES —
6. NAME OF APPLICANT(S) Keystone Seed Co.	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* P. O. Box 1438 Hollister, Calif. 95023		8. TELEPHONE AREA CODE AND NUMBER 408 637-5781
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* corporation	10. STATE OF INCORPORATION California		11. DATE OF INCORPORATION 11/23/55

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.
P. O. Box 1438
Hollister, Calif. 95023

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

[X] 12A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52, P.L. 91-577)*

[X] 12B. Exhibit B, Botanical Description of the Variety

[X] 12C. Exhibit C, Objective Description of the Variety

[X] 12D. Exhibit D, Data Indicative of Novelty

[X] 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 [X] NO

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

14C. If "Yes," to 14B, how many generations of production beyond breeder seed?

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

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act (P.L. 91-577).

May 16, 1975
(DATE)

Fred Waldo Rohrer
(SIGNATURE OF APPLICANT)
Chairman of the Board

(DATE)

(SIGNATURE OF APPLICANT)

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APPLICATION FOR PLANT VARIETY PROTECTION

BUSH BEAN VARIETY ~~2320~~ 'LAKE SENECA' R/S

Exhibit A

Origin and Breeding History of the Variety

1. ~~2320~~ 'LAKE SENECA' originated from a hand pollinated cross between Bush Blue Lake 274 and New York Experiment Station breeding line G103-6-1 and a backcross to Bush Blue Lake 274. The crosses were completed in 1968 and the variety appeared to be stable by the 6th generation.

   Beginning with the F-2, selections were made for a vigorous plant of medium bush size with pods concentrated close to the vertical axis from the middle to the upper portion of the plant. From the desired plant type selections were made for straight pods of 12 to 15 cm. in length and having the familiar Blue Lake characteristics. Concomitantly, selections were made for yield potential and seed quality.

2. Pure line selections based on even maturity and yield potential were made in the 5th and 6th generations. From the 5th to the 7th generation, the variety was evaluated in Pennyslvania and Florida as well as in California for plant habit, yield potential and processed quality. Performance and plant habit were similar in all areas, except that in winter plantings in Florida the plant was more spreading.

   During the course of selection, the most prevalent off types were plants with a greater spread than desired as well as plants with short curved pods. The frequency of these off types was reduced to less than 1 in 4500 by the 6th generation.

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APPLICATION FOR PLANT VARIETY PROTECTION

BUSH BEAN VARIETY ~~2320~~ 'LAKE SENECA' R/S

Exhibit B

Botanical Description of the Variety

Seeds are white, shiny and with a faint vein-like under coat pattern. Around the hilum there is a slight tint of yellow pigment. The seed is relatively large - averaging 46 grams per 100 seeds. In hilar view, the seed is elliptical in shape and in cross-section it is round. From side view, the seed is kidney shaped.

The seedling stage is normal for bush beans. Hypocotyl is green; anthocyanin pigment is absent.

'LAKE SENECA' ~~2320~~ is a determinate, erect bush type snapbean which performs best in summer plantings, but also does well in the winter in Florida. It matures 3 days later than Lake Superior and 1 to 2 days earlier than Blue Lake 274.

'LAKE SENECA' ~~2320~~ is a vigorous plant with a strong stem structure. Most of the pods are located close to the central axis in the middle and upper portion of the plant. Up to 3 sieve size pods are bumpy and then becoming smooth. The pods have a deep green color and 4 sieve size will range from 14 to 17 centimeters in length. The pods of both varieties are round, but at 6 sieve size there is a slight indentation which could be classified as creaseback. Racemes are usually below foliage. At harvest maturity, 4 sieve size will range from 24 to 35%.

Seed development in 'LAKE SENECA' ~~2320~~ is slower than in Lake Superior. At 6 sieve size 'LAKE SENECA' ~~2320~~ averages 5.6% seed as compared to 9% for Lake Superior.

'LAKE SENECA' ~~2320~~ is resistant to common mosaic, N. Y. 15 virus and to some races of rust.

The morphology of 'LAKE SENECA' ~~2320~~ most closely resembles that of Lake Superior, except that:

1. Spread of 'LAKE SENECA' ~~2320~~ averages 49 cm. while Lake Superior averages 60 cm.

2. Number of internodes on main stalk between primary leaf and base of terminal inflorescence is 4 for ~~2320~~ 'LAKE SENECA' and 5 to 7 for Lake Superior.

3. Terminal inflorescence extends above leaves on Lake Superior, but is lower, and within the plant on ~~2320~~ 'LAKE SENECA' due to the internode below the terminal inflorescence being 2 cm. shorter. See attached photograph, Exhibit 1.

4. The pods of ~~2320~~ 'LAKE SENECA' are closer to the vertical axis than in Lake Superior. In ~~2320~~ 'LAKE SENECA' most of the pods are within a 5 cm. radius as compared to 6 cm. for Lake Superior.

5. The leaflets are larger in ~~2320~~ 'LAKE SENECA' than in Lake Superior. Center leaflet of first trifoliolate leaf of ~~2320~~ 'LAKE SENECA' measures 16 x 11.5 cm. while that of Lake Superior measures 15 x 9 cm.

6. The first true simple leaf is considerably larger in ~~2320~~ 'LAKE SENECA'. ~~2320~~ 'LAKE SENECA' measures 18.5 x 12.0 cm. as compared to 16.0 x 8.0 cm. for Lake Superior. See attached print, Exhibit 2.

7. The fresh pods of ~~2320~~ 'LAKE SENECA' are comparable in length to Lake Superior. Up to 4 sieve size, pods of both varieties are straight and slightly bumpy. At 5 to 6 sieve size, the pods of ~~2320~~ 'LAKE SENECA' remain almost straight while those of Lake Superior become slightly curved.

   The curvature ratio of 5 sieve Lake Superior averages 0.933 while that of ~~2320~~ 'LAKE SENECA' averages 0.982. Curvature ratio is taken as the ratio of the length of the cord to the length of the arc formed by the curved pod.

8. The number of marketable pods per plant averages higher for ~~2320~~ 'LAKE SENECA' than for Lake Superior.

~~2320~~ 'LAKE SENECA'	at 2" spacing	- 15 per plant
	Lake Superior at 2" spacing	- 10 per plant
~~2320~~ 'LAKE SENECA'	at 4" spacing	- 22 per plant
	Lake Superior at 4" spacing	- 18 per plant

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'LAKE SENECA' ~~2320~~ at 12" spacing - 42 per plant

Lake Superior at 12" spacing - 35 per plant

9. Color of raw pods is the same for 'LAKE SENECA' ~~2320~~ and Lake Superior as measured by spectral reflectance. The dominant wave length for both varieties is at 567 nm. and Y values are the same.

After blanching, the 4 sieve pod color is brighter and more green than Lake Superior. The Y value for 'LAKE SENECA' ~~2320~~ is 11.4 and dominant wave length is at 556 nm., while Lake Superior has a Y value of 14.55 with dominant wave length at 561 nm. The excitation purity of the blanched 4 sieve pod is 33.8% for 'LAKE SENECA' ~~2320~~ and 28.9% for Lake Superior.

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-12 (11-15-72)

EXHIBIT C (Bean)

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

OBJECTIVE DESCRIPTION OF VARIETY

BEAN (*PHALEOLUS VULGARIS*)

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S): Keystone Seed Co.

ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*): 9870 Fairview Rd., Hollister, Calif. 95023

FOR OFFICIAL USE ONLY

PVPO NUMBER: 7500096

VARIETY NAME OR TEMPORARY DESIGNATION: 'LAKE SENECA' RJS

Temporary - 2320

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in first box (e.g. [0 8 9] or [0 9]) when number is either 99 or less or 9 or less.

1. TYPE:

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

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

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

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

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

[5 7] GREEN PODS [ ] GREEN SHELLS [9 0] DRY SEEDS

[0 2] NO. DAYS EARLIER THAN ---------- [7]

[0 3] NO. DAYS LATER THAN ---------- [8]

1 = TENDERCROP 2 = KENTUCKY WONDER 3 = KINGHORN WAX 4 = WHITE KIDNEY 5 = MICHELITE 62 6 = DWARF HORTICULTURAL 7 = BUSH BLUE LAKE 8 = OTHER (*Specify*) 274 Lake Superior

4. PLANT:

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

[0 5 0] CM. HEIGHT OR LENGTH OF VINE FROM PRIMARY LEAF NODE

[0 0 4] NUMBER PRIMARY BRANCHES PER MAIN STALK

[4 9] CM. SPREAD

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

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

[0 1] CM. LENGTH OF FIRST INTERNODE ABOVE PRIMARY LEAF

[0 9] MM. STALK DIAMETER ABOVE FIRST TRIFOLIATE LEAF

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

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

5. LEAVES:

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

[2] Size: 1 = SMALL (*Earliwax*) 2 = MEDIUM 3 = LARGE (*Tendercrop*) [8] CM. PETIOLE LENGTH (*To basal leaflets of first trifoliate leaf*)

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

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

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

 PV # 7500096 'LAKE SENECA'

6. FLOWERS:

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

[3] Racemes: 1 = LONG 2 = MEDIUM 3 = SHORT [7] NUMBER FLOWERS PER RACEME

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

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

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

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

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

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

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

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

[2] 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

[12] 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

[32] NUMBER PODS PER PLANT *(Once over harvest)*

[22] 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

[1] 1 = SHINY 2 = DULL

[1] Primary color: 1 = WHITE 2 = YELLOW 3 = BUFF 4 = TAN

[ ] Secondary color: 5 = BROWN 6 = PINK 7 = RED 8 = PURPLE 9 = BLUE 10 = BLACK 11 = OTHER *(Specify)*_____

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

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

[2] 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

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

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

[46] GM. WEIGHT PER 100 SEEDS

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

[07] MM. WIDTH *(Dorsal to ventral)*

[06] MM. THICKNESS *(Side to side)*

[15] MM. LENGTH

[011] WIDTH/THICKNESS X 10

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

[1] FLOWERS [1] STEMS [1] PODS [1] SEEDS [1] LEAVES

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

[2]	RUST *(Specify race)* Some, but not specificed	[0]	ANGULAR LEAF SPOT
[0]	BACTERIAL WILT	[2]	COMMON BEAN MOSAIC
[0]	ANTHRACNOSE	[1]	YELLOW BEAN MOSAIC
[0]	SOUTHERN BEAN MOSAIC	[1]	FUSARIUM ROOT ROT
[0]	CURLY TOP	[2]	N.Y. 15 BEAN MOSAIC
[0]	POWDERY MILDEW	[0]	BEAN MOSAIC VIRUS 4
[0]	HALO BLIGHT	[0]	FUSCOUS BLIGHT
[0]	ALFALFA MOSAIC VIRUS	[0]	ALFALFA MOSAIC VIRUS 2
[0]	POD MOTTLE VIRUS	[0]	RED NODE VIRUS
[0]	ROOT KNOT NEMATODE	[ ]	OTHER *(Specify)*

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

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

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

[2] HEAT [0] COLD [0] DROUGHT [ ] OTHER *(Specify)*

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

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

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

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APPLICATION FOR PLANT VARIETY PROTECTION

BUSH BEAN VARIETY ~~2320~~ 'LAKE SENECA' NY-5

Exhibit D

Data Indicative of Novelty

Novelty is based on the unique combination of the following characteristics:
'LAKE SENECA'
~~2320~~ most closely resembles Lake Superior, except it (1) matures 3 days later, (2) has slower seed development, (3) more narrow plant, (4) fewer and shorter internodes to terminal inflorescence, (5) pods more concentrated and closer to central axis, (6) larger leaves, (7) straighter pods, (8) higher potential yield, (9) deeper green pod color after blanch.

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APPLICATION FOR PLANT VARIETY PROTECTION

BUSH BEAN VARIETY ~~2320~~ 'LAKE SENECA' RJS

Exhibit E

Statement of Applicant's Ownership

Keystone Seed Co., Hollister, California, believes it is the sole, original and first breeder of the ~~2320~~ 'LAKE SENECA' variety of bush bean for which it solicits a certificate of protection.

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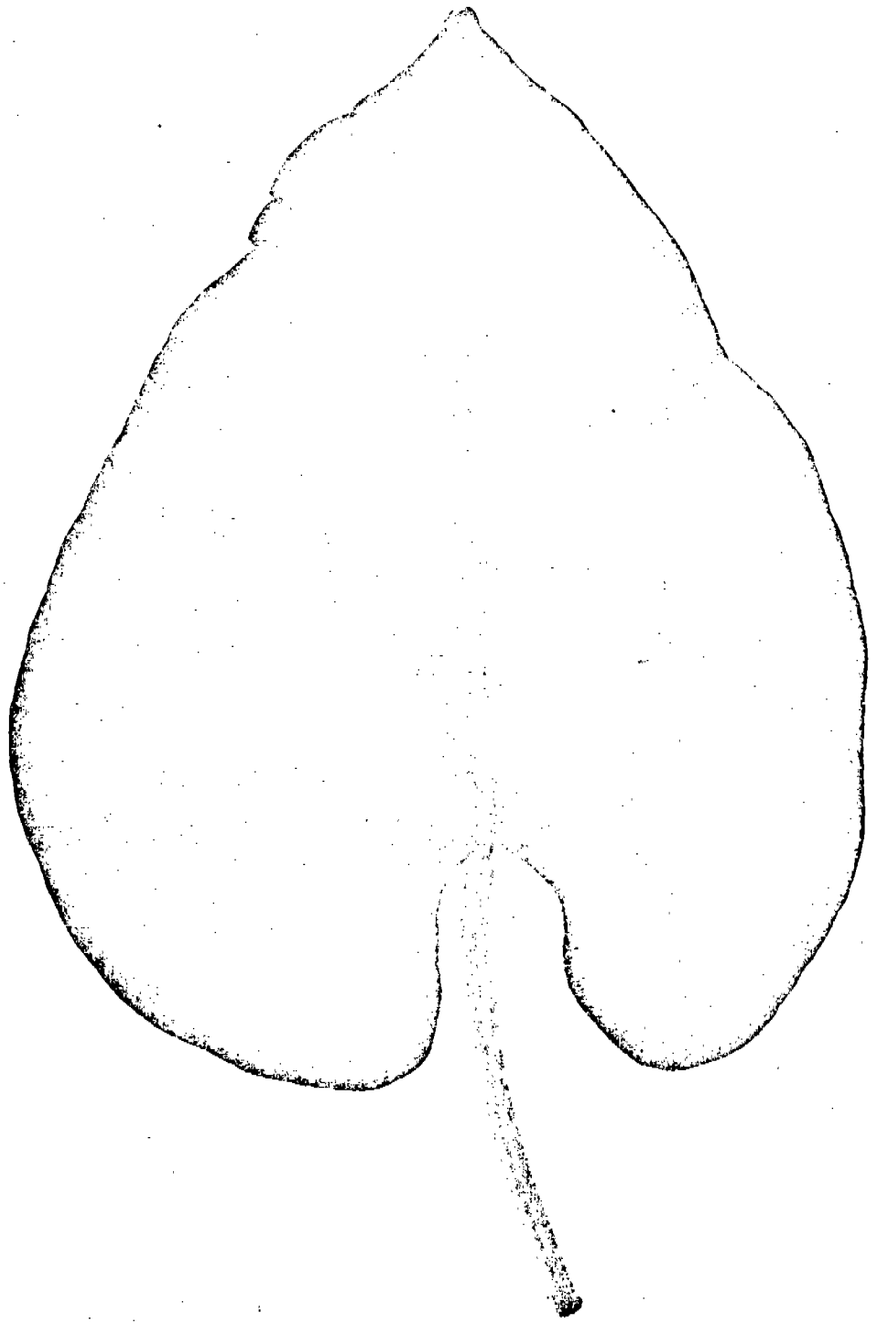
Exhibit 1

Showing shorter terminal raceme on ~~2320~~ 'LAKE SENECA' RJS

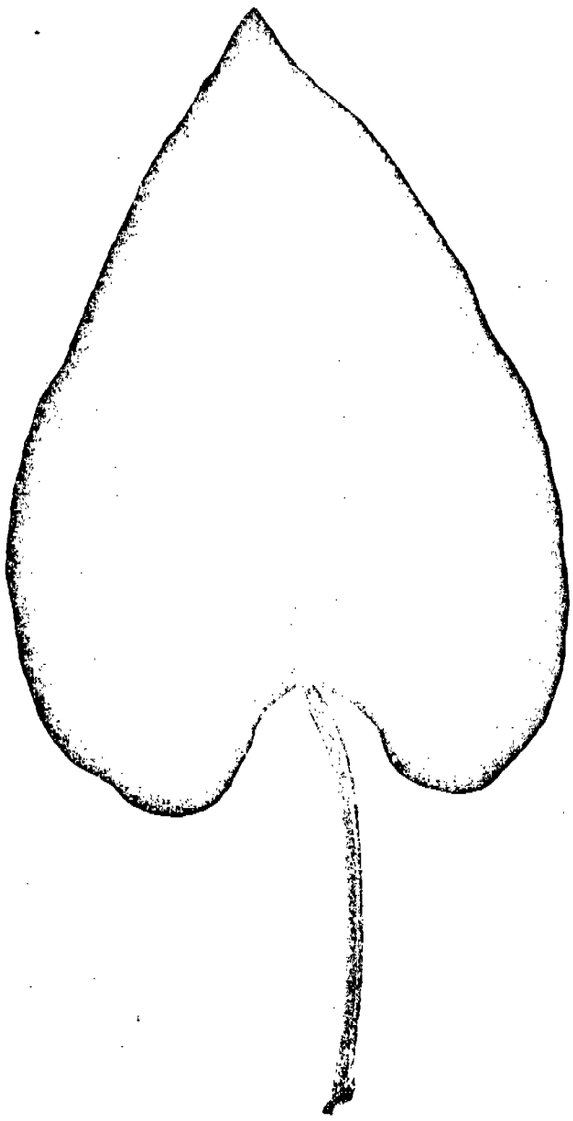
7500096



Primary leaf of ~~2320~~ 'LAKE SENECA' - Actual size

Exhibit 2

7500096



Primary leaf of Lake Superior - Actual size

Exhibit 2

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

Title	Certificate Number	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
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

Title	Application Number	Filing Date
Cajun Queen	Pending	--
Mendota	Pending	--
Sunset	Pending	--
Alpine	Pending	--
Polaris	Pending	--

AGRIGENETICS CORPORATION

By: Murray Robinson

Title: Executive Vice President

COMMONWEALTH OF MASSACHUSETTS)

County of Suffolk)

On this 30th day of April, 1986, before me appeared Wesley Johnson, the person who signed this instrument, who acknowledged that he signed it as a free act on behalf of Agrigenetics Corporation.

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

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

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

Gene Hookstra
Vice President, Research

GH/mo

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

7500096

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 Suns 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.

RECEIVED
JUN 1 3 1989
Variety
Protection Of

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

Variety	Cert #	Issued	Expires	Issued To
Peas				
Alpine	8500101	09/27/85	09/27/03	Sunseeds, A Div. of Agri.
Blizzard	8700022	06/30/87	06/30/05	Sunseeds Genetics, Inc.
Mendota	AP 8500163	05/30/85		
Polaris	AP 8600017	11/12/85		
Sunset	8300074	04/30/84	04/30/02	Agrigenetics Corporation
Titania	AP 8200008	10/26/81		
Beans				
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

SCHEDULE A

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.

OFFICIAL SEAL
CINDY J. ACTIS
NOTARY PUBLIC - CALIFORNIA
SAN BENITO COUNTY
My Comm. Expires Aug. 7, 1991

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