No. 7300016

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.)

LETTUCE

Picoverde

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* tenth *day of* April *in the year of our Lord one thousand nine hundred and* seventy three.

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 Picoverde	2. KIND NAME Lettuce	FOR OFFICIAL USE ONLY PVPO NUMBER 73016
3. GENUS AND SPECIES NAME Lactuca sativa	4. FAMILY NAME *(Botanical)* Compositae	FILING DATE 10-16-72 / TIME 3:30 P.M.
	5. DATE OF DETERMINATION 1966	FEE RECEIVED $250 / CHARGES
6. NAME OF APPLICANT(S) Keystone Seed Co	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* 9870 Fairview Road Hollister, California 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 11/23/1955

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

Same as above (6)

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).

KEYSTONE SEED CO

October 12, 1972
(DATE)

By James W. Chaney
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

RECEIVED
OCT 16 1972
U. S. DEPARTMENT OF AGRICULTURE
AMS, GRAIN DIV.
PVPO

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $50.00 fee to U.S. Dept. of Agriculture, Consumer and Marketing Service, Grain Division, Hyattsville, Maryland 20782. Retain one copy for your files. All items on the face of the form are self-explanatory unles noted below.

ITEM

5 Insert the date the applicant determined that he had a new variety.

12a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.

12b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.

12c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

12d Provide complete data indicative of novelty. Seed and plant specimens may be submitted and seeds submitted may be sterile. Where possible, include photographs of plant comparisons, chemical tests, etc.

12e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

Keystone Seed Co
P.O. Box 1438
Hollister, California
October 12, 1972

LETTUCE
Picoverde

Exhibit A - Origin and Breeding History

In 1964, an off type plant was found and saved in a commercial field of lettuce, Empire, near Oakland, California. Subsequent generations indicated this to be an outcross to a large, smooth textured type. Further selections were made in 1965 and the selection named Picoverde was determined true breeding in 1966. Two subsequent mass increases indicate stability.

Exhibit B - Botanical Description

Normal white seed. Growth is normal during seedling stage, flowering stage and fruiting stage. Heads obovate, approximately 14cm high and 12cm across on major axis and 10cm across on minor axis. Torus rounded and extending into head for a distance of approximately 2cm. Greatest width of core approximately 2.5cm. Leaves glaborus, sessile, entire, pinnatifid; glaucuous on dorsal and ventral side. Lamina margin rugose, sinuate and spinulose. Leaves pie-shaped, length approximately 17cm with greatest width of 25cm. Outer leaves deepest green color at margin of lamina and grading to lighter green at base. Color of leaves toward margin approximates Plate 23 J-7 of Maerz and Paul Index. Inner leaves light yellow corresponding to Plate 17 J-1 of Maerz and Paul Index. Compared to Empire, the leaves are larger and smoother, heads are larger and smoother, color is more gray-green.

Exhibit C - Objective Description

This description is based on a planting date of March 14 in Hollister, California. Full maturity at June 11. Frame averages 17" in diameter, skirt leaves are sparse, semi-procumbent, slightly puckered; slightly waved margins; cap leaves are rather sparse, giving a rather bald appearance but have at least two good, erect flags. Butts are flat and well colored. Foliage and heads are glossy. Heads are slightly flattened at the poles, average 6" in diameter. Typical Great Lakes texture. Performs well on an increasing daylight basis.

Exhibit D - Novelty Data

Five to seven days earlier than the smooth textured Great Lakes types used in the West. Larger head and much smoother textured than the Eastern muck types. Same maturity.

Exhibit E - Basis of Ownership

Applicant made selection.

FORM GR-471
(4-3-72)

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

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY
(LETTUCE)

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 Road
Hollister, California 95023

FOR OFFICIAL USE ONLY
PVPO NUMBER
297 - 1 - 73016

VARIETY NAME OR TEMPORARY DESIGNATION
Picoverde

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

1. PLANT TYPE: [4][2]
10 = CUTTING (Leaf) 20 = STALK
50 = BUTTERHEAD 60 = LATIN
70 = OTHER (Specify) _____

30 = COS
31 = SELF-CLOSING GROUP
32 = LOOSE-CLOSING GROUP

40 = CRISPHEAD
41 = IMPERIAL GROUP
42 = GREAT LAKES GROUP
43 = VANGUARD
44 = NEW YORK GROUP

2. SEED COLOR: [1]
1 = WHITE 2 = BLACK 3 = YELLOW

3. ANTHOCYANIN: [1]
1 = ABSENT 2 = PRESENT

4. LEAF CONTAINING ANTHOCYANIN: [4]
1 = COVERED 2 = SPOTTED 3 = ALONG MARGIN 4 = ABSENT 5 = OTHER (Specify) _____

5. LEAF SURFACE TEXTURE: [1]
1 = SMOOTH 2 = BLISTERED

6. LEAF SURFACE REFLECTANCE: [2]
1 = DULL 2 = GLOSSY 3 = OTHER (Specify) _____

7. LEAF MARGIN: [2]
1 = STRAIGHT 2 = WAVY
3 = CURLED

[5]
1 = ENTIRE 2 = DENTATE 3 = INCISED
4 = DEEPLY INCISED 5 = OTHER (Specify) Spinulose

8. LEAF SHAPE: [1]
1 = ROUNDED 2 = POINTED

[1]
1 = BROADER THAN LONG 2 = LONGER THAN BROAD 3 = OTHER (Specify) _____

9. LEAF COLOR: (See reverse.) [4]
1 = RED 2 = REDDISH-BROWN 3 = YELLOW 4 = YELLOWISH-GREEN 5 = GREYISH-GREEN
6 = BLUE-GREEN 7 = DARK-GREEN 8 = VERY DARK GREEN

10. HEADS: [2]
1 = SPHERICAL 2 = FLATTENED 3 = ELONGATE
4 = POINTED 5 = NON-HEADING

11. PLANT SIZE: (See reverse.) [3]
1 = SMALL 2 = MEDIUM 3 = LARGE

12. CULTURE: [3]
1 = SUMMER CROP 2 = WINTER CROP 3 = NOT SPECIFIC 4 = UNDER GLASS 5 = OTHER (Specify) _____

13. SIZE OF 10-DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT (Growth Chamber) **AT 25° C.:** (Place a zero in first box (i.e. [0][2]) when size is 9 mm. or less.)

[4][5] mm. LENGTH OF SEEDLING [1][3] mm. LENGTH OF COTYLEDON [0][3] mm. WIDTH OF COTYLEDON

14. DISEASE RESISTANCE TO: (Enter zeroes in box(es) where there is no special disease resistance.)

[0] 1 = TIPBURN [0] 2 = MOSAIC [0] 3 = DAMPING OFF [0] 4 = DOWNY MILDEW
[0] 5 = SCLEROTINIA ROT [0] 6 = BROWN BLIGHT [0] 7 = BIG VEIN [0] 8 = OTHER (Specify) _____

15. OUTLINE THE FOURTH LEAF: (For standardization purposes, the fourth leaf should be taken from a 20-day old plant grown under constant light.)

FORM GR-471 (REVERSE)

16. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY
Leaf color	Great Lakes
Leaf pigmentation	Great Lakes
Leaf shape	Great Lakes
Plant size	Great Lakes
Head size	Great Lakes

VARIETY	NO. OF DAYS TO HEAD MATURITY UNDER WINTER CROPPING	LOCATION	NO. OF DAYS TO HEAD MATURITY UNDER SUMMER CROPPING	LOCATION	NO. OF DAYS TO SEED STALK EMERGENCE UNDER SUMMER CROPPING	LOCATION
Submitted	110	Morana, Ariz.	90 days	Hollister, CA	150	Hollister, Ca
Similar	125	" "	95 days	" "	140	" "
Name of similar variety →	Premier Great Lakes					

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

1. C. M. Rodenburg, 1960, Varieties of Lettuce, An International Monograph, Institunt Voor de Veredeling van Tuinbouwgewassen, Wageningen, Holland.

2. L. L. Morse, 1930, Field Notes on Lettuce, published by Ferry-Morse Seed Co.

LEAF COLOR: Nickerson's or any recognized color fan may be used to determine the leaf color of the described variety. The following lettuce varieties may be used as a guide to identify the eight colors listed on the form.

Color	Variety
Red	"Salad Trim"
Reddish-brown	"Ruby"
Yellow	"Salad Bowl"
Yellowish-green	"Oakleaf"
Greyish-green	"White Boston"
Bluish-green	"Bibb"
Dark-green	"Imperial" group
Very dark green	"Deer Tongue"

PLANT SIZE: The following varieties may be used as a guide to identify the plant type size:

TYPE	COMPARABLE VARIETIES		
	SMALL	MEDIUM	LARGE
Cutting (leaf)	Boston-Curled	Prize Head	Grand Rapids
Stalk (stem)	Celtuce	--	--
Cos	Express	Parris Island	Giant White
Crisphead	Mignonette	Hanson (Merit)	Climax
Butterhead	Tom Thumb	Big Boston	Mammoth Butter
Latin	Sucrine	Creole	Deer Tongue

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 Polumin

Title: Executive Vice President

COMMONWEALTH OF MASSACHUSETTS)

County of Suffolk)

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

_____
Notary Public
My Commission Expires:

7300016	4-10-73	Keystone Seed Company	"Picoverde" Lettuce

6. In addition, under the terms of the Supplementary Security Agreement, Sunseeds has granted to Agent, on behalf of Banks, a security interest in any and all right, title, and interest in, to, and under all of Sunseeds' Applications for Plant Variety Protection currently pending with the United States Department of Agriculture, Plant Variety Protection Office, including, but not limited to, the following Applications, copies of which are attached hereto as "Exhibit C":

Application Number	Filing Date	Applicant	Variety
8900171	4-18-89	Sunseeds Genetics, Inc.	"White Diamond" Cauliflower
8700194	8-24-87	Sunseeds Genetics, Inc.	"Sunex 1643" Tomato

6. This Affidavit is to evidence the transfer of a security interest only, and does not reflect the transfer of any other interest in the above-referenced Certificates and Applications.

Dated: December 15, 1989.

Roderick N. Stacey

Roderick N. Stacey

Agreement (the "Agreement"), a copy of which is attached hereto as "Exhibit A" and is incorporated herein by this reference. Under the terms of the Agreement, Sunseeds granted to Security Pacific, as Agent for Banks, a security interest in any and all right, title, and interest in, to, and under all Certificates of Plant Variety Protection granted to Sunseeds and/or any of its predecessors in interest, subsidiaries, and/or divisions, including, but not limited to, the following Certificates of Plant Variety Protection, copies of which are attached hereto as "Exhibit B":

Certificate Number	Date Issued	Grantee	Variety Protected
8800057	9-30-88	Sunseeds Genetics, Inc.	"Prima Belle" Pepper
8500064	9-30-87	Sunseeds Genetics, Inc.	"Mystro" Tomato
8300168	9-27-85	Sunseeds, A Division of Agrigenetics	"Cajun Queen" Okra
7900067	7-26-79	Keystone Seed Co., Inc.	"Commander" Lettuce
7600053	8-24-77	Keystone Seed Company	"Costaverde" Lettuce
7600055	5-31-77	Keystone Seed Company	"Mesaverde" Lettuce
7600052	5-16-77	Keystone Seed Company	"Chaparral" Lettuce
7300001	11-15-74	Keystone Seed Company	"Scanion" Onion

AFFIDAVIT

Roderick N. Stacey, being first duly sworn, says:

1. I am the President and Chief Executive Officer of Sunseeds Genetics, Inc. ("Sunseeds"), a corporation organized and existing pursuant to the laws of the state of Delaware, and having its principal place of business in Hollister, California. I am authorized to make this affidavit on behalf of Sunseeds.

2. Sunseeds is a former division of Agrigenetics Corporation and is successor to certain Certificates of Plant Variety Protection granted to Agrigenetics Corporation, including, but not limited to, those Certificates listed in paragraph number five (5) of this affidavit which designate Agrigenetics Corporation as a grantee.

3. Sunseeds has acquired by merger or purchase all of the Certificates of Plant Variety Protection listed in Paragraph number five (5) of this affidavit.

4. Sunseeds, Security Pacific National Bank, ("Security Pacific"), Cooperatieve Centrale Raiffeisen-Boerenleenbank, B.A., New York Branch ("Rabobank Nederland"), and Caisse Nationale De Credit Agricole ("Credit Agricole") (Security Pacific, Rabobank Nederland, and Credit Agricole are collectively referred to as the "Banks") and Security Pacific as Agent for the Banks, are parties to a Credit Agreement dated as of January 6, 1989.

5. As of August 3, 1989, Sunseeds and Security Pacific as Agent for the Banks, entered into a Supplementary Security

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

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