No. 7400071

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Moran Seeds, 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 (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

LETTUCE

'Cabrillo'

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* 19th *day of* June *in the year of our Lord one thousand nine hundred and* seventy-four

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(12-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL 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	2. KIND NAME	FOR OFFICIAL USE ONLY	
Cabrillo	Lettuce	PV NUMBER 7400071	
3. GENUS AND SPECIES NAME	4. FAMILY NAME *(Botanical)*	FILING DATE 3·11·74	TIME 12:00 NOON
Lactuca sativa	Compositae	FEE RECEIVED $250	BALANCE DUE $ —
	5. DATE OF DETERMINATION	$250	$ —
	September 20, 1971	$250	$ —
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
Moran Seeds, Inc.	1155 Harkins Road Salinas, California 93901		(408) 424-1875

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*	10. STATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	California	August 15, 1963

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

Donald G. Bergam, Vice-president
Moran Seeds, Inc.
1155 Harkins Road
Salinas, California 93901

13. **CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:**

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

[X] 13B. Exhibit B, Botanical Description of the Variety

[X] 13C. Exhibit C, Objective Description of the Variety

[X] 13D. Exhibit D, Data Indicative of Novelty

[X] 13E. Exhibit E, Statement of the Basis of Applicant's Ownership

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 [X] 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

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.

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.

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

March 7, 1974
(DATE)

Donald B. Bergam, Vice-president
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

RECEIVED
MAR 11 '74
U. S. DEPARTMENT OF AGRICULTURE
AMS, GRAIN DIV.
PVPO

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, 6525 Belcrest Road, Hyattsville, Maryland 20782. (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 Insert the date the applicant determined that he had a new variety based on the definition in Section 41 (a) of the Act and decision is made to increase the seed.

13a 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.

13b 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.

13c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

13d Provide complete data indicative of novelty. Seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty may be submitted. Seeds submitted may be sterile.

13e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

FORM GR-470
(12-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL 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 Cabrillo	2. KIND NAME Lettuce	FOR OFFICIAL USE ONLY PV NUMBER 7400071
3. GENUS AND SPECIES NAME Lactuca sativa	4. FAMILY NAME *(Botanical)* Compositae	FILING DATE 3.11.74 / TIME 12:00 NOON FEE RECEIVED $ 250 / BALANCE DUE $ —
	5. DATE OF DETERMINATION September 20, 1971	$ 250 / $ — $ 250 / $ —
6. NAME OF APPLICANT(S) Moran Seeds, Inc.	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* 1155 Harkins Road Salinas, California 93901	8. TELEPHONE AREA CODE AND NUMBER (408) 424-1875

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 August 15, 1963

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Donald G. Bergam, Vice-president
Moran Seeds, Inc.
1155 Harkins Road
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March 7, 1974
(DATE)

Donald G. Bergam, Vice-president
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

EXHIBIT A

Origin and Breeding History of the Variety

1. Cabrillo originated in Salinas, California from a hand-pollinated cross between Merit (U.S.D.A. No. 3186) and Mesa 659. Merit, originated by the United States Department of Agriculture, is a Great Lakes varietal type that is slow-bolting, tolerant to big vein disease, black seeded, and produces heads with a large basal butt core. Mesa 659, originated by Asgrow Seed Company, is a Great Lakes varietal type with good size and uniformity, deeply frilled outer leaves, resistance to tipburn, slow-bolting, and is white seeded.

2. The cross was made in 1964 and assigned the pedigree number 6X13. A mass selection was made in the F_2 generation of plants producing white seeds followed by four generations of single plant selections. The single plant selections were made in the central coast area of California primarily for plants producing heads with large basal butt cores, slow-bolting tendency, good resistance to tipburn and tolerance to big vein disease. In 1969, an F_6 generation line, 6X13-1-2A3B, had excellent uniformity of maturity and horticultural type indicating that the genetic make-up had been stabilized. A mass selection, designated 6X13-1-2A3B-1, was made in 1970 in the F_7 generation for use as breeders seed and for trial purposes. Yield, maturity and performance evaluations were made at nine locations in the central coast area of California for three years and at two locations in the lower Rio Grande Valley area of Texas for two years. (See data attached.)

3. Based on the performance of 6X13-1-2A3B-1 in trials evaluated up to that time, a decision was made September 20, 1971 to make a small basic seed increase in Australia. The basic seed increase was harvested in April 1972 and used in the planting of two acres in the Five Points area of California to produce seed for commercial sales in 1973 in the event that additional trial evaluations in 1972 showed that the variety had sufficient merit for release. The two acres were harvested in October 1972. Evaluation of the variety in the trials conducted in 1972 indicated that 6X13-1-2A3B-1 had sufficient merit for release and a decision was made to name the variety Cabrillo. The first commercial sale of Cabrillo was made March 12, 1973 and consisted of two pounds of seed.

4. The following off-types or rogues are found in Cabrillo:
   (1) A natural rogue mutation that is common to most Great Lakes varietal types. The rogue is a semi-cos type plant with leaves longer than broad, darker green color and poor heading ability resulting in non-marketable heads. The frequency of this rogue in Cabrillo is one plant out of 3,600.

(2) A large, coarse plant, darker green in color, leaves broader than long and averaging 30 per cent larger than Cabrillo. The rogue develops a soft, loose, non-marketable head. The frequency of this rogue is one plant out of 5,750.

All packets of seed of Cabrillo for trial plantings and all packages of seed for commercial sale have been labelled: "NOTICE - Propagation prohibited. Application for plant variety protection contemplated."

EXHIBIT A

Origin and Breeding History of the Variety

Yield, Maturity and Performance Data

The following information is based on nine variety or field trials in the central coast area of California in 1971-73 and two locations in the lower Rio Grande Valley area of Texas in 1972-73. Maturity data is based on the period from the date of the first application of water following planting to the date of the first cutting for harvest.

Trial No. 1: Variety trials - Salinas, California area
First irrigation - June 1, 1971
Harvested August 10, 1971

Performance: Cabrillo was five days later and more uniform in maturity, larger in plant and head size and darker green in color than Mesa 659 with less spiraling. Cabrillo yielded 625 cartons per acre in two cuttings. Mesa 659 yielded 480 cartons per acre in three cuttings.

Trial No. 2: Variety trials - Hollister, California area
First irrigation - July 6, 1971
Harvested September 15, 1971

Performance: Cabrillo was two days later in maturity, had better head weight, larger core at the base of head when cut, and slightly more sunburn due to less leaf cover in head than Mesa 659. Cabrillo yielded 680 cartons per acre in two cuttings. Mesa 659 yielded 620 cartons per acre in two cuttings.

Trial No. 3: Variety trials - Salinas, California area
First irrigation - May 1, 1972
Harvested July 15, 1972

Performance: Cabrillo was four days later in maturity, more concentrated in maturity, had less frequency of spiraling, and better quality heads than Mesa 659. Cabrillo yielded 570 cartons per acre in two cuttings. Mesa 659 yielded 560 cartons per acre in three cuttings.

Trial No. 4: Variety trials - Hollister, California area
First irrigation - June 26, 1972
Harvested September 7, 1972

Performance: Trials were not well-grown due to poorer soil type and lateness of irrigation following thinning. Cabrillo had superior plant vigor to Mesa 659 throughout growing season and reached thinning stage five days earlier. Big vein disease was moderately severe in field but limited the development of Cabrillo to a much lower degree than it limited Mesa 659, Calmar and other Great Lakes varieties in the trial. Cabrillo had

better uniformity of maturity, better head weight and size, larger core at the base of the head when cut, and less tendency to spiral than Mesa 659. Cabrillo was ready for harvest on the same date as Mesa 659 and yielded 495 cartons per acre in two cuttings. Mesa 659 yielded 360 cartons per acre in two cuttings.

Trial No. 5: Variety trials - Salinas, California area
First irrigation - July 1, 1972
Harvested September 6, 1972

Performance: Both Cabrillo and Mesa 659 showed much ribbiness following high temperatures for several days prior to harvest. Cabrillo was two days later in maturity, headed more uniformly and was darker green in color than Mesa 659. Cabrillo yielded 610 cartons per acre in one cutting. Mesa 659 yielded 585 cartons per acre in two cuttings.

Trial No. 6: Field trials - Lower Rio Grande Valley area, Texas
First irrigation - September 15, 1972
Harvested November 24, 1972

Performance: Two beds of Cabrillo planted in commercial field of Mesa 659. Cabrillo was three days later, averaged larger plant and head size, and was more uniform in type and maturity than Mesa 659. Cabrillo yielded 495 cartons per acre in two cuttings. Mesa 659 averaged 430 cartons in four cuttings.

Trial No. 7: Variety trials - Salinas, California area
First irrigation - July 4, 1972
Harvested October 2, 1972

Performance: Cabrillo was four days later in maturity, more concentrated in maturity, larger size heads and darker green color than Mesa 659. Cabrillo yielded 720 cartons per acre in two cuttings. Mesa 659 yielded 660 cartons per acre in three cuttings.

Trial No. 8: Field trial - King City, California area
First irrigation - June 12, 1973
Harvested August 27, 1973

Performance: Eight beds of Cabrillo planted in commercial field of Mesa 659. Cabrillo was five days later in maturity, larger in size of plant and head, and was darker green in color than Mesa 659. The overall quality and condition of Mesa 659 was markedly poorer than Cabrillo and had a higher frequency of natural rogues. Cabrillo yielded 650 cartons per acre. Mesa 659 averaged 375 cartons per acre.

Trial No. 9: Field trial - Soledad, California area
First irrigation - June 18, 1973
Harvested August 24, 1973

Performance: Eight beds of Cabrillo planted in commercial fields of Montemar. No yield data available but Cabrillo was two days earlier than Montemar, had better head size and solidity, and larger basal butt core.

Trial No. 10: Field trial - Greenfield, California area
First irrigation - June 22, 1973
Harvested September 1, 1973

Performance: Four beds Cabrillo planted in commercial field of Mesa 659. Cabrillo was four days later, had better size and darker green color, and was more uniform in type and maturity than Mesa 659. Cabrillo yielded 675 cartons per acre in one cutting. Mesa 659 yielded 660 cartons per acre in two cuttings.

Trial No. 11: Field trials - Lower Rio Grande Valley area, Texas
First irrigation - September 28, 1973
Harvested December 4, 1973

Performance: Four acres of Cabrillo planted in 26 acre field of Mesa 659. Both varieties showed ribbiness due to period of high temperatures during latter part of growing season. Cabrillo headed more uniformly than Mesa 659 and averaged a lower frequency of non-headers and off-type plants. Cabrillo yielded 625 cartons per acre in three cuttings. Mesa 659 yielded 300 cartons per acre in seven cuttings.

EXHIBIT B

Botanical Description of the Variety

Cabrillo belongs to the crisphead class of lettuce varieties and to the Great Lakes varietal type. Cabrillo possesses characteristics that most closely resemble those of Merit and Mesa 659, the two parents used in the cross from which the variety was originated. Cabrillo is three to five days earlier, has better uniformity of maturity, slightly larger frame and head size, slightly lighter green color, the leaves are less savoyed and the leaf margins are more deeply incised and wavy than Merit. Cabrillo has a similar level of big vein disease tolerance as Merit and the size of the basal butt core is comparable. Cabrillo is three to five days later, averages slightly larger plant and head size, has more resistance to spiraling, and a higher degree of big vein disease tolerance than Mesa 659. Cabrillo has slightly more prominent ribs and the size of the basal butt core is larger than Mesa 659 with a more pronounced tendency to produce suckers.

Plant and head color of Cabrillo is dark green with leaves of the Great Lakes type. The leaves are thick, slightly savoyed with wavy, moderately incised leaf margins. Fold and texture of the head leaves are similar to Merit. The heads are slightly flattened round with adequate leaf cover under most growing conditions but may tend to sunburn following periods of high light intensity and temperatures in excess of 90 degrees Fahrenheit. During periods for which the variety is adapted, Cabrillo produces slightly larger frames and heads than Merit or Mesa 659. Cabrillo has less tendency to produce spiraled heads than Mesa 659 and is similar in this respect to Merit. The butts of the cut heads of Cabrillo are flat with basal cores larger in size than Mesa 659, and similar in size to Merit. The butts tend to be "ribby" and the midribs protrude more than Mesa 659. Suckers occur above the point where the heads are cut for market and the lowest wrapper leaves on heads are trimmed for carton packs. Butt color averages darker green than Mesa 659 and slightly lighter green than Merit. The margins of the leaves near the core are more frilly than Merit and similar to Mesa 659. The firmness, or solidity, of the heads of Cabrillo is good except during prolonged periods prior to harvest when daytime temperatures exceed 85 degrees Fahrenheit and the night temperatures are relatively warm. Under most growing conditions, Cabrillo matures three to five days later than Mesa 659 and has good uniformity of maturity that may surpass that of Mesa 659. Yields of Cabrillo maturing during periods of the year suited to the variety and under similar growing conditions consistently exceed those of Mesa 659.

Stem, or "seedstalk", length in market-stage heads of Cabrillo is slightly longer than Mesa 659 and similar to Merit. The variety has slower seedstalk emergence than Calmar, slightly faster seedstalk emergence than Mesa 659 and is similar in this respect to

Merit. The color of the seed of Cabrillo and Mesa 659 is white. Merit is a black seeded variety.

Cabrillo has about the same level of resistance to tipburn as Mesa 659 and a higher level of resistance than Merit. Cabrillo is tolerant to big vein, a soil-borne virus disease transmitted by the fungus Olpidium brassicae (Wor.) Dang. Cabrillo develops milder big vein symptoms than Mesa 659 and has a similar level of tolerance as Merit. Cabrillo is susceptible to downy mildew, a disease caused by the fungus Bremia lactucae Regal and to lettuce mosaic.

Cabrillo is best adapted to the central coast area of California for planting from June 15 to July 31 and to the lower Rio Grande Valley area of Texas for planting from September 15 to October 5.

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)
Moran Seeds, Inc.

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)
1155 Harkins Road
Salinas, California 93901

FOR OFFICIAL USE ONLY
PVPO NUMBER
297 - 1 - 7400071

VARIETY NAME OR TEMPORARY DESIGNATION
CABRILLO

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: [2] 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

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

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.) [7] 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: [1] 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: [1] 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.)
[6][0] mm. LENGTH OF SEEDLING [1][3] mm. LENGTH OF COTYLEDON [0][4] mm. WIDTH OF COTYLEDON

14. DISEASE RESISTANCE TO: (Enter zeroes in box(es) where there is no special disease resistance.)
[2] 1 = TIPBURN [1] 2 = MOSAIC [0] 3 = DAMPING OFF [1] 4 = DOWNY MILDEW
[1] 5 = SCLEROTINIA ROT [0] 6 = BROWN BLIGHT [2] 7 = BIG VEIN [ ] 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.)

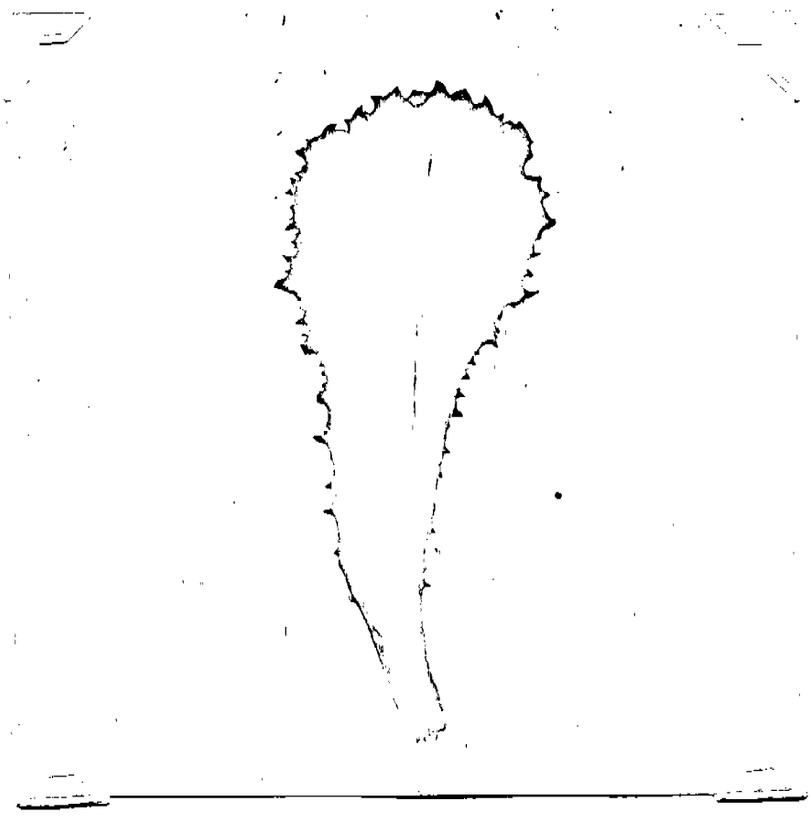
*See attached sheet

EXHIBIT C

Objective Description of the Variety

*15. Outline the Fourth Leaf.

Outline of fourth leaf taken from a 20-day old plant of the lettuce variety Cabrillo grown under constant light in the greenhouse. Temperatures were maintained at 25°C. as closely as possible.



'Cabrillo' PV#7400071

13D. Exhibit D:

'Cabrillo' most closely resembles 'Mesa 659' but differs in: (1) slightly larger frame and head size, (2) larger basal butt core, (3) 3 - 5 days later maturity under most growing conditions, (4) greater concentration of maturity, (5) more resistant to spiraling, (6) slightly more exposed heads, and (7) higher degree of tolerance to big vein disease.

Donald G. Bergam

Mr. Donald G. Bergam
Vice President

'CABRILLO'
7900071

EXHIBIT D

Data Indicative of Novelty (Photograph)

Photograph No. 1 - External appearance of the variety Cabrillo illustrating the varietal characteristics of plant and head type, leaf cover, texture and leaf margin.

'CADRIL.0'
7400071

EXHIBIT D

Data Indicative of Novelty (Photograph)

Photograph No. 2 - **Illustration of uniformity** of plant type and maturity of the variety Cabrillo.

'CABRILLO'
7400071

EXHIBIT C

Objective Description of the Variety

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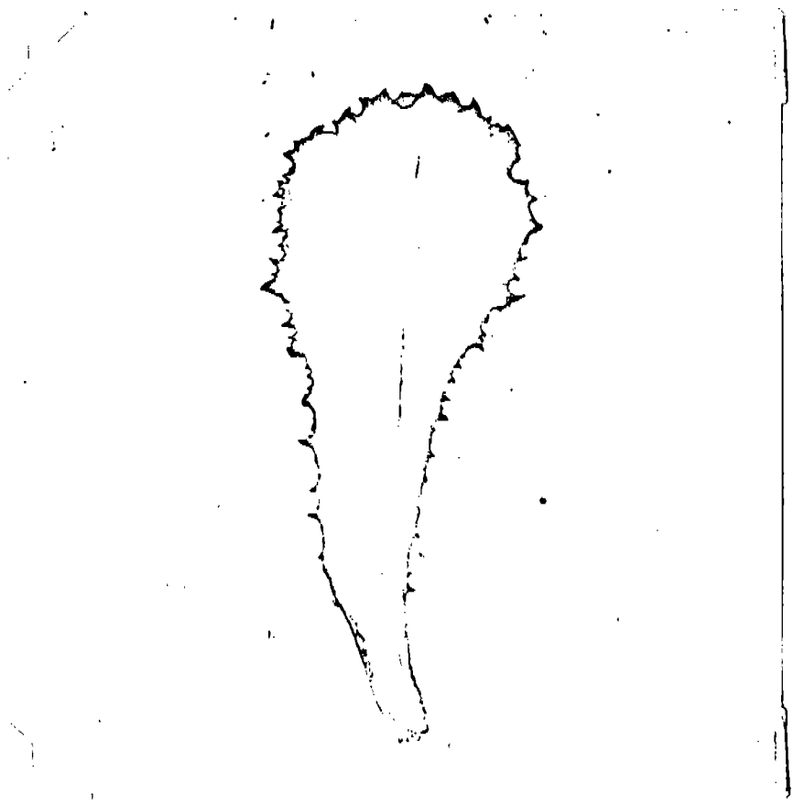
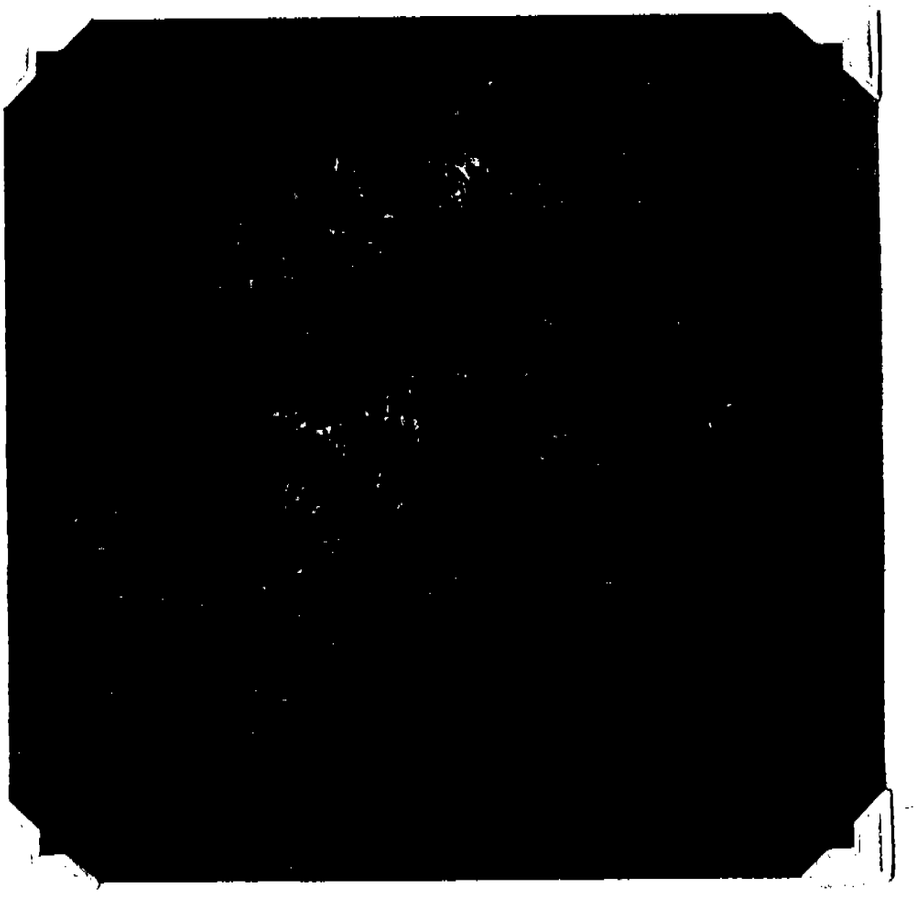


EXHIBIT D

Data Indicative of Novelty (Photograph)

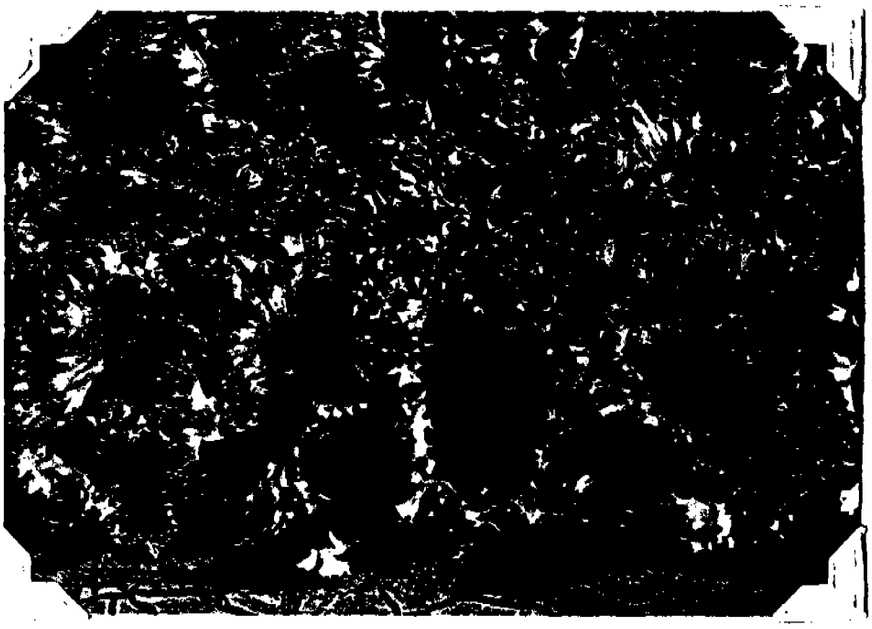


Photograph No. 1 - External appearance of the variety Cabrillo illustrating the varietal characteristics of plant and head type, leaf cover, texture and leaf margin.

Photo pages 13-16 in binder
AB 12-17-87

EXHIBIT D

Data Indicative of Novelty (Photograph)



Photograph No. 2 - Illustration of uniformity of plant type and maturity of the variety Cabrillo.

EXHIBIT D

Data Indicative of Novelty (Photograph)

Photograph No. 3 - Standard carton pack of the variety Cabrillo illustrating the butt appearance; e.g. size of basal core, color, midribs and frilly leaf margin near the core.

EXHIBIT D

Data Indicative of Novelty (Photograph)

Photograph No. 4 - Illustration showing the location of suckers in a marketable head of the variety Cabrillo. The suckers are located above the point where the heads are cut for market and the lowest wrapper leaves are trimmed for carton packs.

EXHIBIT E

Statement of the Basis of Applicant's Ownership

Moran Seeds, Inc., Salinas, California, believes it is the sole, original and first breeder of the Cabrillo variety of lettuce for which it solicits a certificate of protection; that it has sexually reproduced the variety; that it does not know and does not believe that Cabrillo was ever a public variety before Moran Seeds, Inc. development therof; that it is the sole owner of the variety; that Cabrillo was not a public variety more than one year prior to the effective filing date of the application; that before the date of determination of the variety by Moran Seeds, Inc., or more than one year before the effective filing date of the application, the variety was not effectively available to workers in the United States and adequately described by a publication reasonably deemed a part of the public technical knowledge in this country; and that it has not filed an application for the protection of this variety in a foreign country prior to the date of this application.

Moran Seeds, Inc.

March 7, 1974
(Date)

By: Donald G. Bergam
Donald G. Bergam, Vice-president

Amendment: Application for Plant Variety Protection Certificate

The applicant, Moran Seeds, Inc., Salinas, California, declares that a viable sample of basic seed necessary for the propagation of the lettuce variety Cabrillo will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

Moran Seeds, Inc.

March 7, 1974
(Date)

By: Donald G. Bergam
Donald G. Bergam, Vice-president

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 Exploitatiemaatschappij 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: [illegible]
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
[illegible] 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 LeFoday who acknowledged that he is ~~President~~ Attorney-in-Fact 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. [illegible]
Qualified in New York County
Commission Expires [illegible] 1988

Exhibit A

United States Plant Variety Protection Certificates

Cert. No.	Date Issued	Kind	Variety Name	Owner
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.

Exhibit B

Pending United States Plant Variety Protection Applications

Application No.	Filing Date	Kind	Variety Name	Owner
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.

FORM GR-471 (REVERSE)

16. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY
Leaf color	Mesa 659
Leaf pigmentation	Mesa 659
Leaf shape	Mesa 659
Plant size	Climax
Head size	Mesa 659

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			68 - 75	Salinas Valley	84 Days	Hollister, California
Similar			66 - 72	Salinas Valley	86 Days	Hollister, California
Name of similar variety →			Mesa 659		Mesa 659	

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"

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AMS, GRAIN DIV.
PVPO

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