No. 7400014

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

'Cal K-60

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:

R. L. Rollin

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Earl L Butz

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	2. KIND NAME	FOR OFFICIAL USE ONLY	
Cal K-60	Lettuce	PVPO NUMBER 7400014	
3. GENUS AND SPECIES NAME	4. FAMILY NAME *(Botanical)*	FILING DATE 9/7/73	TIME 11:00 A.M.
Lactuca sativa	Compositae		
	5. DATE OF DETERMINATION September 11, 1972	FEE RECEIVED $150.00	CHARGES $200

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, 196

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] 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 [ ] 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).

September 4, 1973
(DATE)

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

(DATE)

(SIGNATURE OF APPLICANT)

EXHIBIT A

Origin and Breeding History of the Variety

1. Cal K-60 originated in the Hollister area of California from a single plant selection made in early June, 1965, in Calmar, a variety jointly released by the University of California and the U. S. D. A. in 1960. The origin and history of Calmar can be found in California Agriculture, "Calmar - A New Lettuce Variety Resistant to Downy Mildew", Volume 19, Number 8, August 1965. The single plant selection was designated F406 A4.

2. Three plants were selected in F406 A4 in early July, 1966, followed by four generations of mass selection in the years 1967-1970. The original single plant selection was selected for earlier maturity, better heading ability and butt appearance in relation to Calmar. The same criteria were used in making the subsequent mass selections as well as selecting for superior uniformity of maturity and horticultural type. Maturity and/or yield tests were made in six locations in the Salinas Valley for two years. (See data attached.) A small basic seed increase was produced in the Swan Hill area of Australia for harvest in April 1971. Seed of F406 A4 for commercial sale was first produced in Australia for harvest in April 1972. F406 A4 was given the varietal name Cal K-60 following final release August 21, 1972, by the Imperial Valley - Yuma Mosaic Committee stating that the lot of commercial seed produced in Australia and submitted to them for mosaic testing had been cleared as being free of mosaic in 30,000 seeds tested. The sample submitted to the Imperial Valley - Yuma Mosaic Committee was designated as K60, Lot # K-115.

3. Two plant-type rogues are found in the variety Cal K-60:
   (1) a large, coarse plant with smoother leaf texture, plainer leaf margins and outer leaves approximately 50% larger than Cal K-60. The rogue develops a soft, loose non-marketable head. The frequency of this rogue in Cal K-60 is one plant out of 1,500. In Calmar the frequency of this rogue is 2.7 plants out of 1,500.
   (2) a natural rogue mutation found in 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 Cal K-60 is one plant out of 8,500. In Calmar the frequency of this rogue is five plants out of 8,500.

In Addition to the two plant-type rogues described above, a black seed mutation is found in normally white seeded Cal K-60 but at a much lower frequency than found in Calmar. The frequency of plants with the black seed mutation in Cal K-60 is one plant out of 18,000. The frequency of the black seed mutation in Calmar is seven plants out of 18,000. 1:2,571

4. The genetic make-up of Cal K-60 was relatively stable after the original single plant selection based on subjective observation in the breeding trials. A program of critical rogueing of any

variable types in the mass selections was maintained through the fifth generation following the original selection. Subjective observation of the variety in the last generation of mass selection in comparison with Calmar indicated that the genetic make-up of Cal K-60 was more stable than that variety. The lower frequency of variants found in Cal K-60 in comparison with Calmar as described in section 3 of this exhibit and the attached data from our trial reports further indicates a homogeneous variety.

EXHIBIT A

Origin and Breeding History of the Variety

Yield and Maturity Data

The following yield and maturity data was obtained from six trial plantings in the Salinas Valley of California in 1971 and 1972. Similar cultural practices were used in the growing of the trial plantings as used in commercial plantings. The varieties were replicated four times in each trial planting using fifty foot length of bed per replication with two rows per bed. Maturity data is based on the period from first irrigation to harvest.

Trial No. 1: Moran Trial Grounds. Irrigated June 1, 1971

Cal K-60		
First cutting - August 3	Yield:	605 cartons per acre
Second cutting - August 10	Yield:	200 cartons per acre
		805
Calmar		
First cutting - August 7	Yield:	340 cartons per acre
Second cutting - August 14	Yield:	390 cartons per acre
		730

Trial No. 2: Moran Trial Grounds. Irrigated July 5, 1971

Cal K-60		
First cutting - September 7	Yield:	595 cartons per acre
Second cutting - September 14	Yield:	180 cartons per acre
		775
Calmar		
First cutting - September 12	Yield:	380 cartons per acre
Second cutting - September 18	Yield:	370 cartons per acre
		750

Trial No. 3: Harden Farms Ranch 4. Irrigated July 18, 1971

Cal K-60		
First cutting - September 24	Yield:	560 cartons per acre
Second cutting - September 29	Yield:	190 cartons per acre
		750
Calmar		
First cutting - September 27	Yield:	375 cartons per acre
Second cutting - October 1	Yield:	345 cartons per acre
		720

Trial No. 4: Harden Farms. Irrigated March 31, 1972

Cal K-60		
First cutting - June 10	Yield:	515 cartons per acre
Second cutting - June 14	Yield:	170 cartons per acre
		685
Calmar		
First cutting - June 14	Yield:	365 cartons per acre
Second cutting - June 19	Yield:	260 cartons per acre
		625

Trial No. 5: Moran Trial Ground. Irrigated May 1, 1972

Cal K-60		
First cutting - July 5	Yield:	610 cartons per acre
Second cutting - July 11	Yield:	155 cartons per acre
		765
Calmar		
First cutting - July 9	Yield:	350 cartons per acre
Second cutting - July 15	Yield:	360 cartons per acre
		710

Trial No. 6: Harden Farms Ranch 12. Irrigated May 25, 1972

Cal K-60		
First cutting - July 29	Yield:	520 cartons per acre
Second cutting - August 4	Yield:	110 cartons per acre
		630
Calmar		
First cutting - August 1	Yield:	310 cartons per acre
Second cutting - August 7	Yield:	280 cartons per acre
		590

NOTE: Maturity dates are difficult to establish on varieties planted in December and January in the Salinas Valley and Santa Maria area for early spring harvest due to variations in winter weather conditions. Generally, Calmar, the standard variety grown in this period, averages 120 days from planting in early December to first harvest. Growers in these areas have reported that Cal K-60 averages 2 to 4 days earlier and yields a significantly higher number of cartons of lettuce on the first cutting than Calmar.

EXHIBIT B

Botanical Description of the Variety

Cal K-60 belongs to the crisphead class of lettuce varieties and to the Great Lakes varietal type. Cal K-60 most closely resembles the varieties Calmar, Montemar and Calmaria. Cal K-60 is earlier, more uniform in maturity and horticultural type, has less of a tendency to produce puffy heads when maturing during the warmer periods of the summer season, has slower seedstalk elongation and a lower frequency of rogues than Calmar. Cal K-60 is lighter green in color, slightly earlier and has less of a tendency to produce puffy heads during periods of higher temperatures in the summer season than Montemar. The tendency of Cal K-60 not to produce puffy heads is less marked in relation to Montemar than to Calmar. Cal K-60 makes larger head size than Calmaria, especially when grown for spring harvest. Cal K-60 can consistently be grown successfully for harvest during the spring and summer seasons in the California coastal valleys while Calmaria is consistent in its performance in these areas only when planted for harvest from early July to late September. Adequate irrigation and use of pre-plant fertilizer is also more critical in the growing of Calmaria.

Plant and head color of Cal K-60 is medium dark green similar to Calmar but lighter green than Montemar. The heads are round, have good to adequate cover and have little tendency to spiral. The heads of Cal K-60 are larger than Calmaria when grown for spring harvest in the California coastal valleys and are comparable in size to Calmar. Cal K-60 has the ability to produce solid heads under most conditions. This characteristic is most apparent during the summer season in the warmer portions of the California coastal valleys when Calmar and Montemar, to a lesser degree, have a tendency to produce puffy heads. The butt shape of Cal K-60 is flat and overall butt appearance is better than Calmar. Heads trimmed for carton packs are not as ribby as Calmar but are ribbier than Great Lakes 118. Butt color averages darker green than Calmar but not as dark green as Montemar. The margins of the leaves near the core are frilly and similar to Calmar in this respect. Seedstalk elongation is slower in Cal K-60 than in Calmar and the variety has less of a tendency to produce "bolters" in periods of higher temperatures during the summer season in the Salinas Valley. Head leaf texture and flavor of Cal K-60 is similar to Calmar. Harvested heads of Cal K-60 have no suckers of significant size. The basal core diameter is comparable to Calmar but is larger than Calmaria during the spring harvest season.

Cal K-60 is primarily adapted to the coastal valleys of California for harvest from early April into the latter part of the summer season. Commercial plantings in the Imperial Valley in 1972 indicate that Cal K-60 performs well in that area when planted September 25 to October 5 for harvest from early to mid-December. Cal K-60 has consistently matured 2 to 4 days earlier than Calmar and 1 to 2 days earlier than Montemar in the spring harvest season in the

California coastal valleys; and 3 to 5 days earlier than Calmar and 2 to 3 days earlier than Montemar in the summer harvest season. The heads of Cal K-60 mature more uniformly in comparison with Calmar and has consistently yielded a significantly higher number of cartons of lettuce per acre on the first cutting. During the spring season in the Salinas Valley, Cal K-60 produces heads with better size and color than Calmaria.

Cal K-60 has good resistance to downy mildew, a disease caused by the fungus Bremia lactucae Regal. The variety is also resistant to tipburn, brown blight and brown rib and is susceptible to big vein and mosaic.

Cal K-60 is white seeded and has a much lower incidence of the black seed mutation than Calmar. The variety also has a much lower incidence of the plant-type variants described in Exhibit A, section 3, than Calmar.

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 - 7400014
VARIETY NAME OR TEMPORARY DESIGNATION
CAL K-60

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.) *See Attached Sheet

[5][2] mm. LENGTH OF SEEDLING [2][3] mm. LENGTH OF COTYLEDON [0][8] 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 [1] 3 = DAMPING OFF [2] 4 = DOWNY MILDEW
[1] 5 = SCLEROTINIA ROT [2] 6 = BROWN BLIGHT [1] 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

FORM GR-471 (REVERSE)

16. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY
Leaf color	*Calmar*
Leaf pigmentation	*Calmar*
Leaf shape	*Calmar*
Plant size	*Calmar*
Head size	*Calmar*

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			*64 - 69*	*Salinas Valley*	*79 Days (Average)*	*Salinas Valley*
Similar			*67 - 74*	*Salinas Valley*	*77 Days (Average)*	*Salinas Valley*
Name of similar variety →			*Calmar*		*Calmar*	

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

EXHIBIT C

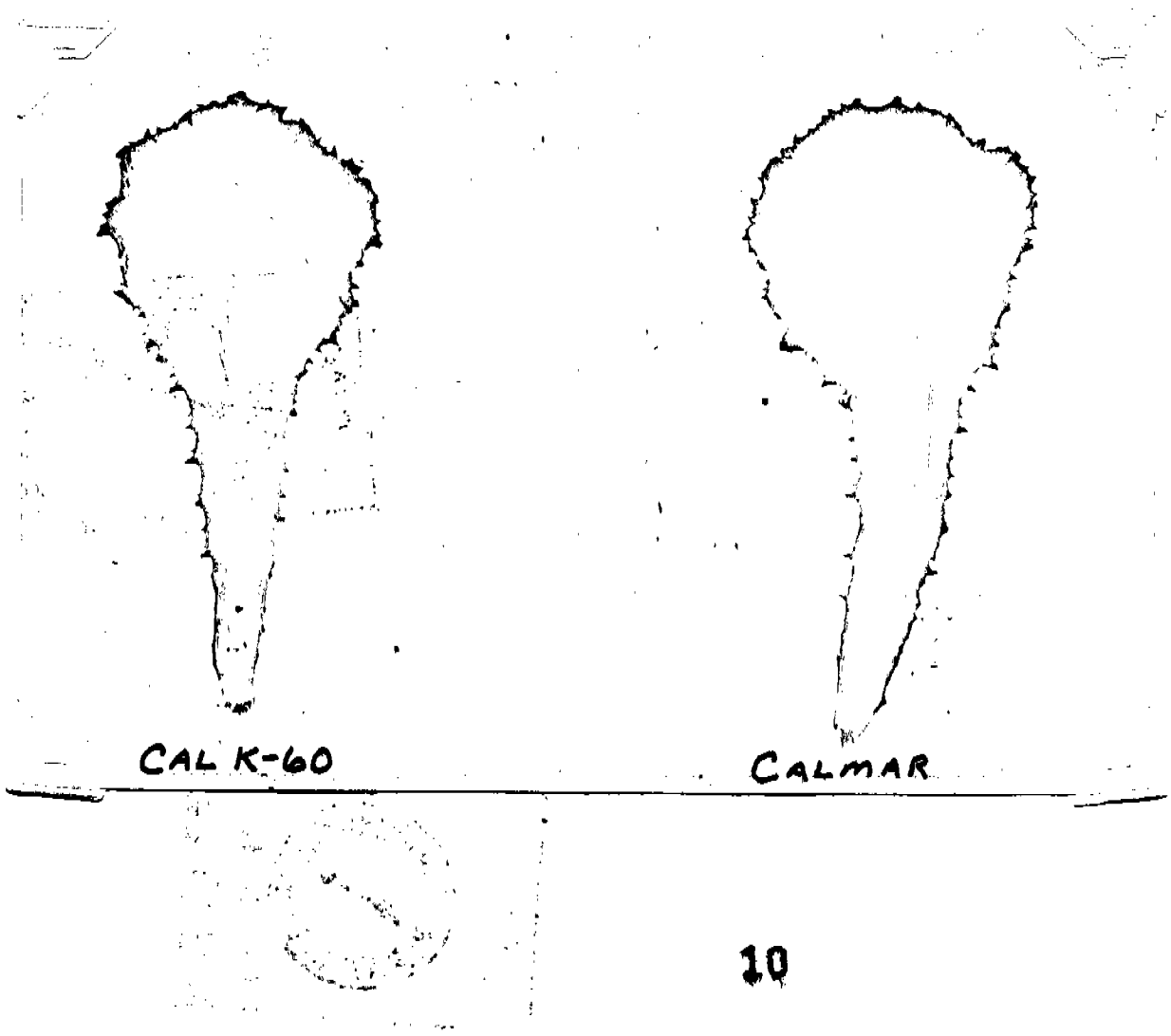
Objective Description of the Variety

13. Size of 10 day old seedling grown under constant light (Growth chamber) at 25°C.

No growth chamber available. Data obtained from growing seedlings in flats in the greenhouse under constant light. Temperatures were maintained at 25°C. as closely as possible. Length of seedling was measured from soil level in the flats.

15. Outline the fourth leaf.

Outline of fourth leaf taken from 20-day old plants grown under constant light in flats in the greenhouse with temperatures maintained at 25°C. as closely as possible. Outlines of the fourth leaf illustrated below are from a 20-day old plant of Cal K-60 and a 20-day old plant of Calmar.



'Cal K-60' PV#7400014

13D. Exhibit D:

'Cal K-60' most closely resembles 'Montemar' but differs in: (1) lighter green plant and head color, (2) 1-2 days earlier in spring harvest; 2-3 days earlier in summer harvest and (3) less tendency to puffy heads during high summer temperatures.

Donald G. Bergam

Mr. 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 Cal K-60 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.

September 4, 1973
(Date)

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

EXHIBIT D

Data Indicative of Novelty (Photograph)

Photograph No. 1 - External appearance of the variety Cal K-60 illustrating the varietal characteristics of plant and head type, leaf cover, texture, and leaf margin.

Cal K-60

7400014

Not from Cert. Insects

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 Cal K-60 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 Cal K-60 was ever a public variety before Moran Seeds, Inc. development thereof; that it is the sole owner of the variety; that the variety was not a public variety more than 1 year prior to the effective filing date of the application, the variety was not effectively available to workers in this country 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.

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: _____
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 [illegible] State of New York
[illegible]
Commission Expires March 30, 19[illegible]6

STATE OF New York

COUNTY OF New York

Before me, a Notary Public, in and for said County, personally appeared Patrice LeHoday 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. 4[illegible]
Qualified in New York County
Commission Expires March 30, 1986

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.