



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Harnish-Brinker Seed Company
and Marvin's Seed, 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

'Winterhaven'

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 June in the year of our Lord one thousand nine hundred and seventy-four

Attest:

J. J. Rollin
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Earl L. Butz

Secretary of Agriculture

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1. VARIETY NAME OR TEMPORARY DESIGNATION Winterhaven	2. KIND NAME Lettuce	FOR OFFICIAL USE ONLY	
		PVPO NUMBER 7400015	
3. GENUS AND SPECIES NAME Lactuca Sativa	4. FAMILY NAME (Botanical) Compositae	FILING DATE 9/7/73	TIME 11:00 A.M.
	5. DATE OF DETERMINATION April 27, 1973	FEE RECEIVED \$ 250	CHARGES —
6. NAME OF APPLICANT(S) Harnish-Brinker Seed Co. Marvin's Seed, Inc.	7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Box 277, Five Points, Ca. 93624 Box 1068, El Centro, Ca. 92243	8. TELEPHONE AREA CODE AND NUMBER (209) 884-2380 (714) 352-1536	
	9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Harnish-Brinker, a Corporation Marvin's Seed, a Corporation	10. STATE OF INCORPORATION California California	11. DATE OF INCORPORATION 8/1/52 4/22/62

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

Richard F. Brinker
Harnish-Brinker Seed Co.
P.O. Box 277
Five Points, California 93624

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- 12A. Exhibit A, Origin and Breeding History of the Variety (See Section 52, P.L. 91-577)
- 12B. Exhibit B, Botanical Description of the Variety
- 12C. Exhibit C, Objective Description of the Variety
- 12D. Exhibit D, Data Indicative of Novelty
- 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 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).

August 27, 1973
(DATE)

By: [Signature] Pres.
(SIGNATURE OF APPLICANT)

August 31, 1973
(DATE)

By: [Signature] Sec.
(SIGNATURE OF APPLICANT)

HARNISH-BRINKER SEED COMPANY

EXHIBIT A

Origin and Breeding History of the Variety

1. 'Winterhaven' originated in California from a single plant selection of 'Vanguard' in the Imperial Valley in 1968. The breeding history and description of the parent 'Vanguard' may be found in Technical Bulletin No. 1244 U.S.D.A., "Descriptions and Pedigrees of Nine Varieties of Lettuce".

2. Selections were made in succeeding generations based on head size, color, confirmation, and uniformity.

3. Rouging of a typical 'Vanguard' bluish-green type is required. The frequency of this off-type is approximately 5 in 2600. 1:520

This variety was stabilized in the fourth generation.

Field notes are attached

Eevaluation of Vanguard selections, Sec. 27

<u>No.</u>	<u>No. of plants</u>	<u>Open headers</u>	<u>Small heads</u>
1.	58	7	3
2.	57	2	2 smooth
3.	64	10	
4.	29	2	7
5.	56	5 (very early bolter)	1 smooth
6.	67	3	1 smooth(Winterhaven)
7.	55	6	2
8.	61	11 (early bolter)	5
9.	65	10 (early bolter)	2
10.	61	15 (early bolter)	5 smooth
11.	49	5 (early bolter)	5 small & smooth

Harnish-Brinker trial notes

July 15, 1971

Evaluation of Vanguard selections, Sec. 27

No.

1. 6 open headers, 1 bolter, good size, very uniform, medium hard heads
2. 4 open headers, very uniform, good size, medium hard heads
3. 10 open headers, good size, very uniform, medium hard heads
4. 17 bolters, 5 bluish types with loose heads, fairly uniform, good size, soft heads
5. 40% bolters, 90% bluish types, very soft heads, good size
6. Very very uniform, good size heads, medium hard heads, 4 open headers, 1 bluish type, frame not too large compared to head size (Winterhaven)
7. 30% bluish types, small plants, soft heads, 6 bolters
8. Approximately 50-50 mix of green and blue types, 20% bolters, 2 open headers, fair size
9. Approximately 50-50 mix of green and blue types, 10% bolters, 1 open header, small size
10. 60% blue types, 10% bolters, small size, 2 open headers

4 beds each, two rows to bed 110 feet long
Approximately 800 plants per selection

Harnish-Brinker Trial Notes

A

Winterhaven

- 1968 Single plant selection
- 1969 10 plants grown out in greenhouse
- 1970 #3 67 plants grown in trial ground on Sec. 27, 3 open headers, 1 smooth head.
- F₄ 1971 #5 800 plants in trial ground on Sec. 27, Very very uniform, good size heads, frame size not to large compared to head size, medium hard heads, 4 open headers, 1 bluish type
- 1972 $\frac{1}{2}$ acre for stock seed increase and testing, Sec. 26, 1 open header per half mile of row and average of 5 blue types per half mile of row
- 1972-73 Winter and spring, trial in commercial planting of Vanguard, Grower-Calflax Ranch, Five Points Calif.. Shipper- Pacific Farm Co. Firebaugh, Calif.
- 1973 6 acres, 1 open header per 2600 plants, 5 blue types per 2600 plants

Comparative seed sizes per year for Vanguard and Winterhaven. Seed counts are for ungraded seed. *seed/lb.*

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
Winterhaven	491,000	465,000	360,000	401,000 ✓ <i>sta 12/29/73</i>
Vanguard	525,000	530,000	535,000	494,000 ✓ <i>H-F</i>

Harnish-Brinker Trial Notes

A

Winterhaven

- 1968 Single plant selection
- 1969 10 plants grown out in greenhouse
- 1970 67 plants grown in trial ground on Sec. 27, 3 open headers, 1 smooth head
- 1971 800 plants in trial ground on Sec. 27, Very very uniform, good size heads, frame size not to large compared to head size, medium hard heads, 4 open headers, 1 bluish type
- 1972 $\frac{1}{2}$ acre for stock seed increase and testing, Sec. 26, 1 open header per half mile of row and average of 5 blue types per half mile of row
- 1972-73 Winter and spring, trial in commercial planting of Vanguard, Grower-Calflax Ranch, Five Points Calif.. Shipper- Pacific Farm Co. Firebaugh, Calif.
- 1973 6 acres, 1 open header per 2600 plants, 5 blue types per 2600 plants

Comparative seed sizes per year for Vanguard and Winterhaven. Seed counts are for ungraded seed.

	<u>1970</u>	<u>1971</u>	<u>4[?] 1972</u>	<u>1973</u>
Winterhaven	491,000	465,000	360,000	406,000
Vanguard	525,000	530,000	535,000	494,000

Sizes are in seeds per lb.

The figure of 360,000 is correct

R. F. Brinker
Harnish-Brinker Seed Co.

HARNISH-BRINKER SEED COMPANY

EXHIBIT B

Botanical Description of the Variety

'Winterhaven' is a winter and spring season lettuce and is similar in plant characteristics to 'Vanguard' but is more vigorous and the frame size is larger. Seeds are black and resistant to dormancy. The growth rate in the seedling stage is similar to 'Vanguard', but it accelerates in growth during the vegetative development and reaches market stage a week earlier.

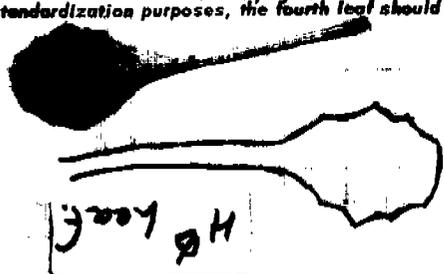
'Winterhaven' makes a larger head than 'Vanguard', (spring 1973 San Joaquin Valley, 54 lbs. per carton against 47 lbs. in the same field). The plants are more uniform and on the first cut in this same field the yield for 'Winterhaven' was 745 cartons against 469 for 'Vanguard'. The frame leaves are large and cover the head well. The leaves are thick and tender, slightly blistered and glossy, with wavy margins. A little lighter green than 'Vanguard'. The butt is large and of good appearance. The heads are broad at the base and well rounded. The interior color is creamy and the leaves are well folded. Eating quality is excellent. Tests on this cultivar have been limited and its range of adaptation has not definitely been established, however, we believe that it will fit into the late fall, winter and spring seasons in the desert areas and the San Joaquin Valley.

OBJECTIVE DESCRIPTION OF VARIETY
(LETTUCE)

INSTRUCTIONS: See reverse.

NAME OF APPLICANT(S) Harnish-Brinker Seed Co. And Marvin's Seed, Inc.		FOR OFFICIAL USE ONLY	
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P.O. Box 277 Five Points, Calif. 93624		PVPO NUMBER 297-1-7400015	VARIETY NAME OR TEMPORARY DESIGNATION WINTERHAVEN
P.O. Box 1068 El Centro, Calif. 92243			

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

1. PLANT TYPE: <input type="checkbox"/> 10 = CUTTING (Leaf) <input type="checkbox"/> 20 = STALK <input type="checkbox"/> 50 = BUTTERHEAD <input type="checkbox"/> 60 = LATIN <input type="checkbox"/> 70 = OTHER (Specify)		30 = COS <input type="checkbox"/> 31 = SELF-CLOSING GROUP <input type="checkbox"/> 32 = LOOSE-CLOSING GROUP	40 = CRISPHEAD <input type="checkbox"/> 41 = IMPERIAL GROUP <input type="checkbox"/> 42 = GREAT LAKES GROUP <input type="checkbox"/> 43 = VANGUARD <input type="checkbox"/> 44 = NEW YORK GROUP
2. SEED COLOR: <input type="checkbox"/> 1 = WHITE <input type="checkbox"/> 2 = BLACK <input type="checkbox"/> 3 = YELLOW		3. ANTHOCYANIN: <input type="checkbox"/> 1 = ABSENT <input type="checkbox"/> 2 = PRESENT	
4. LEAF CONTAINING ANTHOCYANIN: <input type="checkbox"/> 1 = COVERED <input type="checkbox"/> 2 = SPOTTED <input type="checkbox"/> 3 = ALONG MARGIN <input type="checkbox"/> 4 = ABSENT <input type="checkbox"/> 5 = OTHER (Specify)			
5. LEAF SURFACE TEXTURE: <input type="checkbox"/> 1 = SMOOTH <input type="checkbox"/> 2 = BLISTERED		6. LEAF SURFACE REFLECTANCE: <input type="checkbox"/> 1 = DULL <input type="checkbox"/> 2 = GLOSSY <input type="checkbox"/> 3 = OTHER (Specify)	
7. LEAF MARGIN: <input type="checkbox"/> 1 = STRAIGHT <input type="checkbox"/> 2 = WAVY <input type="checkbox"/> 3 = CURLED		8. LEAF SHAPE: <input type="checkbox"/> 1 = ROUNDED <input type="checkbox"/> 2 = POINTED <input type="checkbox"/> 3 = BROADER THAN LONG <input type="checkbox"/> 4 = LONGER THAN BROAD <input type="checkbox"/> 5 = OTHER (Specify) <u>Approx. even</u>	
9. LEAF COLOR: (See reverse.) <input type="checkbox"/> 1 = RED <input type="checkbox"/> 2 = REDDISH-BROWN <input type="checkbox"/> 3 = YELLOW <input type="checkbox"/> 4 = YELLOWISH-GREEN <input type="checkbox"/> 5 = GREYISH-GREEN <input type="checkbox"/> 6 = BLUE-GREEN <input type="checkbox"/> 7 = DARK-GREEN <input type="checkbox"/> 8 = VERY DARK GREEN			
10. HEADS: <input type="checkbox"/> 1 = SPHERICAL <input type="checkbox"/> 2 = FLATTENED <input type="checkbox"/> 3 = ELONGATE <input type="checkbox"/> 4 = POINTED <input type="checkbox"/> 5 = NON-HEADING		11. PLANT SIZE: (See reverse.) <input type="checkbox"/> 1 = SMALL <input type="checkbox"/> 2 = MEDIUM <input type="checkbox"/> 3 = LARGE	
12. CULTURE: <input type="checkbox"/> 1 = SUMMER CROP <input type="checkbox"/> 2 = WINTER CROP <input type="checkbox"/> 3 = NOT SPECIFIC <input type="checkbox"/> 4 = UNDER GLASS <input type="checkbox"/> 5 = OTHER (Specify) <u>Winter - Spring</u>			
13. SIZE OF 10-DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT (Growth Chamber) AT 25° C.: (Place a zero in first box (i.e. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>) when size is 9 mm. or less.) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> mm. LENGTH OF SEEDLING <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> mm. LENGTH OF COTYLEDON <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> mm. WIDTH OF COTYLEDON			
14. DISEASE RESISTANCE TO: (Enter number in box) <input type="checkbox"/> 1 = TIPBURN <input type="checkbox"/> 2 = MOSAIC <input type="checkbox"/> 3 = DAMPING OFF <input type="checkbox"/> 4 = DOWNY MILDEW <input type="checkbox"/> 5 = SCLEROTINIA ROT <input type="checkbox"/> 6 = BROWN BLIGHT <input type="checkbox"/> 7 = BIG VEIN <input type="checkbox"/> 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.) 			

* (Enter 0 - Not tested; 1 - Susceptible; 2 - Resistant)

16. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER		NAME OF VARIETY				
Leaf color		Imperial				
Leaf pigmentation		Imperial				
Leaf shape		Vanguard				
Plant size		Climax				
Head size		Climax				
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	140	San Joaquin Valley, Ca.	58	San Joaquin Valley, Ca.	75	San Joaquin Valley, Ca.
Similar	145	Same	Does not make head	Same	60	Same
Name of similar variety	Vanguard		Vanguard		Vanguard	

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, Instituut 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"

RECEIVED

SEP 7 73

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

HARNISH-BRINKER SEED COMPANY

EXHIBIT D

Data Indicative of Novelty

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

'Winterhaven' is similar to its parent 'Vanguard' except it has (1) Larger seeds, (2) Slightly lighter green in color at market stage (Munsel Color Chart 5GY-4/6)*, at seed stalk leaf color is approximately the same, (3) More vigorous, (4) Larger, (5) More uniform, (6) Earlier, (7) wider range of seasons, (8) Slower bolting; seed stalk emergence by natural occurrence is 15 to 20 days later, (9) Seed stalks are taller.

Photographs and seed samples are enclosed

* see attached letter 2/27/74

HARNISH-BRINKER SEED COMPANY

EXHIBIT D

Data Indicative of Novelty (Additional information 12/29/73 underlined)

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

'Winterhaven' is similar to its parent 'Vanguard' except it has (L) Larger seeds, ^{49.4 gms/1000 heavier} four year average is 91,750 less seeds per pound. (2) Slightly lighter green in color at market stage (^{7/9/73} Munsel Color Chart 5GY-4/6) at seed stalk stage leaf color is approximately the same. In gathering data for Plant Variety Protection we failed to obtain the color value for 'Vanguard', the earliest plantings will be mature enough in about 30 days to get the Munsel Color Chart value. (3) More Vigorous, (4) Larger, 'Winterhaven' weighed 7 lbs. more per carton than 'Vanguard'. (5) More uniform, first cut of 'Winterhaven' yielded 745 cartons per acre and 'Vanguard' cut 469 cartons. (6) Earlier, 'Winterhaven' is 5 to 8 days earlier than 'Vanguard'. (7) Wider range of seasons, in the Imperial Valley where the timing is very critical in the late summer, 'Winterhaven' has been planted 5 days earlier and 3 days later than 'Vanguard'. With the slower bolting and less tip burn that is evident in our seed production fields, the expectation is that it can be planted up to ten days later. This year's plantings in commercial fields are 10 days earlier and 8 days later than the normal 'Vanguard' plantings. (8) Slower bolting; seed stalk emergence by natural occurrence is 15 to 20 days later. (9) Seed Stalks are taller, 'Winterhaven' averages 14.72 Cm taller than 'Vanguard'.

* supplied in
etc 2/27/74

537-6/4 2/18/74 *



HARNISH-BRINKER SEED COMPANY

Producers & Wholesalers of Superior Quality Garden Seed

"THE BRAND THAT BREEDS
QUALITY SEEDS"

February 27, 1974

CABLE ADDRESS
HARNISH-FRESNO
P.O. BOX 277
FIVE POINTS, CALIF. 93624
AREA CODE 209
PHONE: 8 6 4 - 2 3 8 0

Mr. H.H. Fisher
Examiner, Plant Variety Protection Office
Grain Division, U.S.D.A.
Agricultural Marketing Service
6525 Belcrest Road
Hyattsville, Maryland 20782

Dear Mr. Fisher:

Subject: Application No. 740015, Lettuce 'Winterhaven'

The following information is in addition to our letter of 12-29-73.

In our original EXHIBIT D submitted in Sept. of 73, we gave the Munsel Color Chart designation of 5gy-4/6. This color value was at mature head stage in our seed production field in the summer at Five Points, California, the date of color determination was July 9, 1973.

On February 15, 1974 in the Westmorland district of the Imperial Valley we compared 'Winterhaven' and 'Vanguard' planted next to each other in a commercial field of winter production. Both 'Winterhaven' and 'Vanguard' in winter production are lighter in color than they are in the more intense light of the longer days later in the year.

The Munsel Color values obtained on February 15, 1974 from the cap leaf of 10 representative samples of each variety are as follows.

'Winterhaven' 5gy-6/4
'Vanguard' 5gy-5/4

Also enclosed is a photo of 'Vanguard' and 'Winterhaven' taken on the fifth of February 1974 in the Holtville area of Imperial Valley.

Sincerely,
HARNISH-BRINKER SEED CO.

R.F. BRINKER
Manager

12

WARRANTY

Harnish-Brinker Seed Company warrants the seeds we sell will be, at the time of delivery, as described on the container within recognized tolerances. No other warranty is given expressed or implied. Our liability on this warranty is limited to the purchase price of the seed, under all circumstances and regardless of the nature, cause or extent of the loss. Seeds not accepted under these terms and conditions must be returned at once in original unopened containers and the purchase price will be refunded.

MEMBERS:

CALIFORNIA SEED ASSOCIATION

AMERICAN SEED TRADE ASSOCIATION

PACIFIC SEED ASSOCIATION

WESTERN GROWERS ASSOCIATION

GROWER-SHIPPERS ASSOCIATION OF CENTRAL CALIFORNIA

HARNISH-BRINKER SEED COMPANY

EXHIBIT E

Statement of Applicants' Ownership

Harnish-Brinker Seed Co., Five Points, California and Marvin's Seed, Inc., El Centro, California, believe they are the sole, original and first breeder of the 'Winterhaven' variety of Lettuce for which they solicit a certificate of protection.

Harnish-Brinker Seed Co., is a division of Harnish-Five Points Inc.

CERTIFICATION

L. MARVIN ROUHOTAS, SR., President of MARVIN SEED, INC. certifies that this is a true and correct copy of that certain Bill of Sale given by RALPH O. BOLDT as Trustee in Bankruptcy for MARVIN SEED, INC. to L. MARVIN ROUHOTAS for the transfer of the Winterhaven Seed Patent being Patent Number P.V.P. 740 0015 dated June 24, 1974.

DATED: February 6, 1986

L. Marvin Rouhotas, Sr.
L. MARVIN ROUHOTAS, SR.
President of Marvin Seed, Inc.



Staple

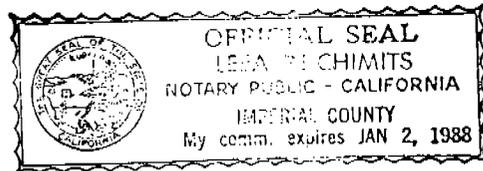
STATE OF CALIFORNIA
COUNTY OF IMPERIAL } ss.

On this the 6th day of February 1986, before me the undersigned, a Notary Public in and for said County and State, personally appeared L. MARVIN ROUHOTAS, SR.

_____, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same.

Lee Ann Chimits
Signature of Notary

FOR NOTARY SEAL OR STAMP



CAL-375 (Rev. 8-82) Ack. Individual

Staple

SECURITY AGREEMENT

(Accounts, Contract Rights, Chattel Paper, General Intangibles)

February 12, 1986

LOUIS G. DIDIER and CHARLES R. SCROGGS
(Name)

P. O. Box 6517
(No. and Street)

Yuma
(City)

Yuma
(County)

Arizona
(State)

is hereinafter called the Debtor

and the FIRST INTERSTATE BANK OF ARIZONA, N.A., Yuma Agricultural and Commercial Loan Office,

is hereinafter called the Secured Party.

A. DESCRIPTION OF PROPERTY (Or see attached Collateral Schedule)

One-Half (1/2) interest in the plant variety production on Winterhaven lettuce seed known as P.V.P. 740 0015 issued 6-24-74 and production rights thereto called "Patent # P.V.P. 740 0015 dated June 24, 1974.

All goods sold or leased or for services rendered which gives rise to any such property; if the Debtor is in business, all inventory of the Debtor; all proceeds thereof in any form; and unless checked below, all other property of the same class or classes hereafter owned or acquired by Debtor (the Collateral).
(If checked here, after-acquired property is not included.)

In consideration of the financial accommodations heretofore and hereafter rendered by Secured Party to the Debtor, the Debtor agrees with the Secured Party as follows:

§1. SECURITY INTEREST

1.1 Debtor hereby grants to Secured Party a security interest (the Security Interest) in the above described Collateral.

1.2 Debtor acknowledges that although proceeds of Collateral are covered by this Security Agreement, this shall not be construed to mean that Secured Party consents to any sale of accounts, contract rights, chattel paper or general intangibles constituting collateral.

§2. INDEBTEDNESS SECURED

The Security Interest secures payment of any and all indebtedness of Debtor to Secured Party, whether now existing or hereafter incurred, of every kind and character, direct or indirect, and whether such indebtedness is from time to time reduced and thereafter increased, or entirely extinguished and thereafter reincurred, including, without limitation, any sums advanced by Secured Party for taxes, assessments, insurance and other charges and expenses as hereinafter provided (the Indebtedness).

§3. REPRESENTATIONS AND WARRANTIES OF DEBTOR

Debtor represents and warrants that: (a) each account, contract right, chattel paper or general intangible constituting the Collateral is genuine and enforceable in accordance with its terms against the party obligated to pay the same (the Obligor) and each chattel paper constituting the Collateral is perfected; (b) Debtor is the owner of the Collateral free of all security interests or other encumbrances, except the Security Interest and no financing statement covering the Collateral is filed or recorded in any public office; (c) the amount represented by Debtor to Secured Party as owing by each Obligor or by all Obligors is the correct amount actually and unconditionally owing by such Obligor or Obligors, except for normal cash discounts where applicable; (d) no Obligor has any defense, setoff, claim or counterclaim against Debtor which can be asserted against the Secured Party whether in any proceeding to enforce the Collateral or otherwise; (e) Debtor is authorized to enter into this Security Agreement and into the transactions evidenced by the Collateral; (f) if Debtor is engaged in business operations, such are carried on at the address specified above; and (g) Debtor's records concerning the Collateral are kept at the address specified above.

§4. COVENANTS OF DEBTOR

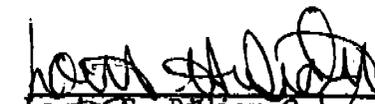
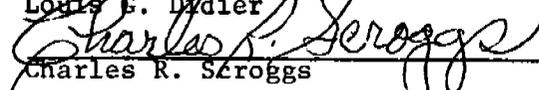
So long as any indebtedness remains unpaid, Debtor: (a) will defend the Collateral against the claims and demands of all other parties including, without limitation, defenses, setoffs, claims and counterclaims asserted by any Obligor against Debtor and/or Secured Party; will keep the Collateral free from all security interests or other encumbrances except the Security Interest; will not sell, transfer, assign, deliver or otherwise dispose of any Collateral or any interest therein without the prior written consent of Secured Party; (b) will keep, in accordance with sound accounting practice, records concerning the Collateral and will, unless Secured Party in writing consents to the contrary, mark any and all such records and all or any Collateral to indicate the Security Interest; and will permit Secured Party or its agent to inspect the Collateral and to audit or make extracts from such records or any of Debtor's books, ledgers, reports, correspondence and other records; (c) will deliver to Secured Party upon demand any Chattel Paper, and invoices, shipping or delivery records, purchase orders, contracts or other documents, representing or relating to the Collateral or any part thereof; (d) will notify Secured Party promptly in writing of any change in Debtor's address specified above and of any change in the address specified above at which records concerning the Collateral are kept; (e) will notify Secured Party immediately of any default of any Obligor in payment or other performance of his obligations with respect to any Collateral; (f) will not, without Secured Party's written consent, make or agree to make any alteration, modification or cancellation of, or substitution for, or credit, adjustments or allowances on, any Collateral; (g) in connection herewith, will execute and deliver to Secured Party such financing statements, assignments and other documents, pay all costs of title searches and filing financing statements, assignments and other documents in all public offices requested by the Secured Party, and do such other things as Secured Party may request; (h) will pay all taxes, assessments and other charges of every nature which may be levied or assessed against the Collateral; will insure the Collateral against risks and in coverage, in form and amount satisfactory to Secured Party, and at Secured Party's request, will deliver each policy or certificate of insurance thereof to the Secured Party.

§5. VERIFICATION OF COLLATERAL

Secured Party shall have the right to verify all or any Collateral in any reasonable manner and Debtor agrees to furnish all assistance and information and to perform any acts which Secured Party may require in connection therewith.

By executing this Security Agreement, the undersigned acknowledge receipt of a copy hereof and agree that it includes the ADDITIONAL PROVISIONS on the reverse side hereof, the same being incorporated herein by reference.

"NOTICE: By granting a security interest in the collateral described herein, debtor waives all rights provided by law to claim such collateral exempt from process."


Louis G. Didier

Charles R. Scroggs

RECEIVED

§6. NOTIFICATION AND PAYMENTS

MAR 3 1986

Secured Party, without notice to Debtor, may notify all or any Obligors of the Security Interest and may also direct such Obligors to make all payments on Collateral to Secured Party. Until Secured Party has notified the Obligors to pay directly to it, Debtor with its own cost and expense collect, or cause to be collected, the accounts and moneys due under the accounts and contract rights, general intangibles or pursuant to the terms of the chattel paper, it being understood that Secured Party shall not be liable or responsible in any way whatsoever for any acts of negligence, embezzlement, conversion or default by the Debtor or by Debtor's agents, with respect to such collections and that such agents shall be the agents of the Debtor and not the agents of the Secured Party. Unless Secured Party notifies Debtor in writing that it dispenses with one or more of the following requirements, any payments on or other Proceeds of Collateral received by Debtor, before or after notification to Obligors, shall be held by Debtor in trust for Secured Party in the same fund in which received, shall not be commingled with any assets of Debtor and shall be turned over to Secured Party not later than the next business day following the day of their receipt. All payments on and other Proceeds from Collateral received by Secured Party directly or from Debtor shall be applied to the Indebtedness in such order and manner and at such time as Secured Party shall, in its sole discretion, determine. Debtor shall also promptly notify Secured Party of the return to or repossession of Debtor of goods underlying any Collateral, and Debtor shall hold the same in trust for Secured Party and shall dispose of the same as Secured Party directs.

§7. DEFAULT

7.1 Any of the following events or conditions will constitute an event of default hereunder; (i) nonpayment when due, whether by acceleration or otherwise, of principal or of interest on any Indebtedness, or default by Debtor in the performance of any obligation, term or condition of this Security Agreement or any other agreement between Debtor and Secured Party; (ii) nonpayment when due of any tax imposed on Debtor or on any of Debtor's assets; (iii) death or judicial declaration of incompetency of Debtor, if an individual; (iv) the filing by or against Debtor of a petition for adjudication as a bankrupt under chapter VII, XI or XIII, the filing by or against Debtor (if a corporation) of a petition for liquidation under Chapter VII or reorganization under Chapter XI of the Bankruptcy Act or any similar statute; (v) the making of any general assignment by Debtor for the benefit of creditors; the appointment of a receiver or trustee for Debtor or for any of Debtor's assets; or the institution by or against Debtor of any other type of insolvency proceeding (under the Bankruptcy Act or otherwise) or of any formal or informal proceeding for the dissolution or liquidation of, settlement of claims against or winding up or affairs of, Debtor; (vi) the occurrence of any event described in paragraph 7.1 (iii), (iv) or (v) hereof with respect to any indorser or guarantor, or any other party liable for payment, as authorized by law, of any indebtedness; (vii) the issuance of an attachment, garnishment, levy or execution against any of the property or funds of any Debtor or the assessment of a tax deficiency against any Debtor; (viii) if any certificate, statement, representation, warranty or audit heretofore or hereafter furnished by or on behalf of Debtor or any indorser or guarantor, or any other party liable for payment, of any Indebtedness, pursuant to or in connection with this Security Agreement, or otherwise (including, without limitation, representations and warranties contained herein) or as an inducement to Secured Party to extend any credit to or to enter into this or any other agreement with Debtor, proves to have been false in any material respect at the times as of which the facts therein set forth were stated or certified or to have omitted any substantial contingent or unliquidated liability or claim against Debtor or any such indorser, guarantor or other party; or if upon the date of execution of this Security Agreement there shall have been any materially adverse change in any of the facts disclosed by any such certificate, statement, representation, warranty or audit, which change shall not have been disclosed to Secured Party at or prior to the time of such execution; (ix) if Debtor makes any agreement for the bulk transfer of the Collateral without the written permission of the Secured Party; or (x) if Secured Party in good faith believes that the prospect of payment of all or any part of the Indebtedness or performance of Debtor's obligations under this agreement or any other agreement now or hereafter in effect between Debtor and Secured Party is impaired.

7.2 Secured Party, at its sole election, may declare all or any part of any Indebtedness not payable on demand to be immediately due and payable without demand or notice of any kind upon the happening of any event of default. The provisions of this paragraph are not intended in any way to affect any rights of Secured Party with respect to any Indebtedness which may now or hereafter be payable on demand.

7.3 Upon the happening of any event of default, Secured Party's rights and remedies with respect to the Collateral shall be those of a Secured Party under the Uniform Commercial Code and under any other applicable law, as the same may from time to time be in effect, in addition to those rights granted herein and in any other agreement now or hereafter in effect between Debtor and Secured Party. Secured Party may require Debtor to assemble the Collateral and deliver or make it available to Secured Party at a place to be designated by Secured Party which is reasonably convenient to both parties. Secured Party may enter upon Debtor's premises to take possession of, assemble and collect the Collateral or to render it unusable. Secured Party shall not be liable for any loss, depreciation, injury or damage to any of Debtor's property as a result of such action. Debtor hereby waives any claim of trespass arising therefrom.

§8. MISCELLANEOUS

8.1 As further security for payment of the Indebtedness, Debtor hereby grants to Secured Party a security interest in and lien on any and all property of Debtor which is or may hereafter be in Secured Party's possession in any capacity, including, without limitation, all moneys owed or to be owed by Secured Party, Secured Party shall have a right to setoff and apply such property against the Indebtedness at any time, said right to be matured and complete at the moment of inception of any obligation or indebtedness of Debtor to Secured Party but exercisable at the will and option of Secured Party.

8.2 Upon Debtor's failure to perform any of its duties hereunder, Secured Party may, but shall not be obligated to, perform any or all such duties, and Debtor shall pay an amount equal to the expense thereof with interest thereon at the highest lawful rate to Secured Party forthwith upon written demand by Secured Party. Secured Party may demand, collect and sue on the Collateral (in either Debtor's or Secured Party's name at the latter's option) with the right to enforce, compromise, settle or discharge the Collateral, and may indorse Debtor's name on any and all checks, commercial paper and any other Instruments pertaining to the Collateral and is hereby irrevocably appointed Debtor's attorney-in-fact so to do.

8.3 No delay or omission by Secured Party in exercising any right or remedy hereunder or with respect to any Indebtedness shall operate as a waiver of any other right or remedy or as a waiver of the same right or remedy after written demand for strict performance given to the Debtor by the Secured Party, and no single or partial exercise of any right or remedy shall preclude any other or further exercise thereof or the exercise of any other right or remedy. Secured Party may remedy any default by Debtor hereunder or with respect to any Indebtedness in any reasonable manner without waiving the default remedied and without waiving any other prior or subsequent default by Debtor. All rights and remedies of Secured Party hereunder are cumulative and are in addition to all other rights and remedies afforded by the laws of Arizona and the United States.

8.4 Secured Party may assign this Security Agreement, and if it does so, (i) the Assignee shall be entitled, upon notifying the Debtor, to performance of all Debtor's obligations and agreements hereunder, and the Assignee shall be entitled to all the rights and remedies of Secured Party under this agreement, and (ii) Debtor will assert against Assignee no claims or defenses which he may have against Secured Party except those which may be asserted against a holder in due course of a negotiable instrument.

8.5 Secured Party and Debtor as used herein shall include the heirs, executors or administrators, or successors or assigns of those parties. The provisions of this agreement shall apply to the parties according to the context hereof and without regard to the number or gender of words and expressions used herein.

8.6 If more than one Debtor executes this Security Agreement, the term "Debtor" shall include each as well as all of them and their obligations, warranties and representations hereunder shall be joint and several.

8.7 No modification, rescission, waiver, release or amendment of any provision of this Security Agreement shall be made except by a written agreement subscribed by Debtor and a duly authorized officer of Secured Party.

8.8 This Security Agreement and the transaction evidenced hereby shall be governed by the laws of the State of Arizona, as the same may from time to time be in effect, including, without limitation, the Uniform Commercial Code.

8.9 This Security Agreement is, and is intended to be, a continuing Security Agreement and shall remain in full force and effect until the manager of Secured Party's office specified at the beginning of this Security Agreement shall actually receive written notice of its discontinuance and shall remain in full force and effect thereafter until all of the Indebtedness contracted for or created before the receipt of such notice by Secured Party, and any extensions or renewals thereof (whether made before or after receipt of such notice) together with interest accruing thereon after such notice, shall be paid in full.

8.10 Without in any way requiring notification or demand to be given in the following manner, Debtor agrees that any notification or demand by Secured Party, of sale, disposition or other intended action hereunder or in connection herewith, whether required by the Uniform Commercial Code or otherwise, shall constitute reasonable notification or demand to Debtor if such notification or demand is mailed by regular or certified mail, postage prepaid, at least five (5) days prior to such action, to Debtor's address specified above or to any other address which Debtor has specified in writing to Secured Party as the address to which notifications or demands hereunder shall be given to Debtor.

8.11 Debtor agrees to pay all costs and expenses incurred by Secured Party in enforcing this Security Agreement, in realizing upon any Collateral and in enforcing and collecting any Indebtedness, including, without limitation, if Secured Party retains counsel for any such purpose its reasonable attorneys' fees actually incurred.

Duplicate

ASSIGNMENT
OF
"WINTERHAVEN" LETTUCE SEED PATENT

THIS ASSIGNMENT entered into this 15TH day of March, 1988, by and between C&L ENTERPRISES, a partnership, LOUIS G. DIDIER and CAROL DIDIER, husband and wife, and CHARLES R. SCROGGS and CAROL A. SCROGGS, husband and wife, collectively (hereinafter referred to as "Assignor"), and CHARLES R. SCROGGS and CAROL A. SCROGGS, husband and wife (hereinafter referred to as "Assignee").

W I T N E S S E T H:

FOR VALUE RECEIVED, Assignor hereby assigns to Assignee, their successors and assigns, all of their right, title and interest in that certain "Winterhaven Lettuce Seed Patent, United States Patent Application #7400015.

IN WITNESS WHEREOF, the Assignor and Assignee have signed this Assignment the day and year first above written.

ASSIGNOR:

C&L ENTERPRISES, a partnership

By *Louis G. Didier*
LOUIS G. DIDIER, Partner

By *Charles R. Scroggs*
CHARLES R. SCROGGS, Partner

Charles R. Scroggs
CHARLES R. SCROGGS

Carol A. Scroggs
CAROL A. SCROGGS

Louis G. Didier
LOUIS G. DIDIER

ASSIGNEE:

Charles R. Scroggs
CHARLES R. SCROGGS

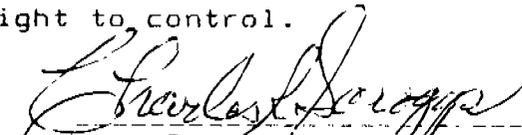
Carol A. Scroggs
CAROL A. SCROGGS

Bill of Sale

The undersigned, Charles R. Scroggs, for a valuable consideration, the receipt of which is hereby acknowledged, does hereby grant, bargain, sell and convey to Royal Sluis, Inc. the personal property described as:

all of his interest in Plant Variety Protection on Winterhaven Lettuce Seed number P.V.P. 740 0015 issued on June 24, 1974 by Plant Variety Protection Office of the United States Department of Agriculture, Agriculture Market Service, and all coated and uncoated Winterhaven Seed Seller owns and/or controls or has the right to control.

Dated: Mar 18, 1988

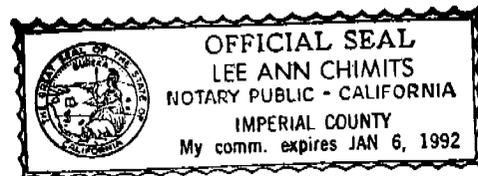

Charles R. Scroggs

State of California
County of Imperial

On this the 18th day of March 1988 before me, the undersigned Charles R. Scroggs personally appeared _____ personally known to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same.


Signature of Notary

(Seal)



ASSIGNMENT OF PLANT VARIETY PROTECTION CERTIFICATE

WHEREAS, Charles R. Scroggs executed an assignment dated March 18, 1988, under which he assigned to Royal Sluis, Inc. all of his interest in plant variety protection on Winterhaven Lettuce Seed being P.V.P. Certificate No. 740 0015 issued on June 24, 1974 by the Plant Variety Protection Office of the United States Department of Agriculture, Agriculture Market Service, together with all Winterhaven seed Charles R. Scroggs owns or controls or has the right to control;

AND, WHEREAS, such assignment should, in fact, have been made to the parent corporation of Royal Sluis, Inc., i.e. Koninklijke Zaaizaadbedrijven Gebroeders Sluis, B.V., a corporation formed under the laws of The Netherlands, also known as Royal Sluis;

NOW, THEREFORE, Royal Sluis, Inc. hereby assigns to Koninklijke Zaaizaadbedrijven Gebroeders Sluis, B.V., also known as Royal Sluis, all right, title and interest in plant variety protection on Winterhaven Lettuce Seed P.V.P. Certificate No. 740 0015 issued on June 24, 1974 by the Plant Variety Protection Office of the United States Department of Agriculture, Agriculture Market Service, and all coded and non-coded Winterhaven Seed, assigned by Charles R. Scroggs to Royal Sluis, Inc. by assignment dated March 18, 1988.

For Journal, Certificates amended

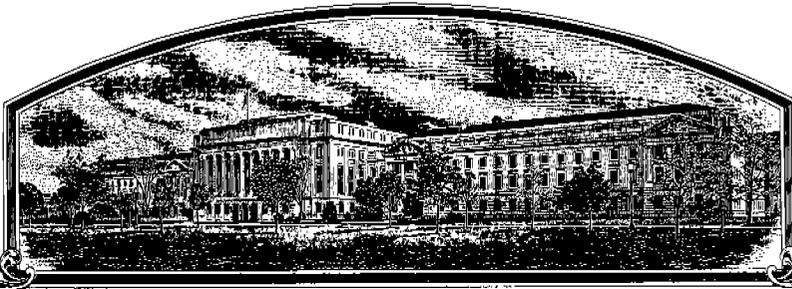
LETTUCE

7400015 Winterhaven

06/24/74 Harnish-Brinker Seed Company
and Koninklijke
Zaaizaadbedrijven Gebroeders
Sluis, B.V.

Name of owner changed from Harnish-Brinker Seed Company, Charles R. Scroggs and Louis Didier to Harnish-Brinker Seed Company and Charles R. Scroggs to Harnish-Brinker Seed Company and Royal Sluis, Inc. to Harnish-Brinker Seed Company and Koninklijke Zaaizaadbedrijven Gebroeders Sluis, B.V.

No.



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Harnish-Brinker Seed Company
and Marvin's Seed, 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 _____ 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.)

[SEAL]

*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 _____
this _____ day of _____ in
the year of our Lord one thousand nine
hundred and _____*

Attest:

J. J. Rollin
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture