No. 7500104

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Canners Seed Corporation

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.)

PEA

'#8221 Early Perfection'

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, DC *this* 19th *day of* July *in the year of our Lord one thousand nine hundred and* seventy-six

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 #8221 Early Perfection	2. KIND NAME Processing pea variety for canning	FOR OFFICIAL USE ONLY PV NUMBER 7500104
3. GENUS AND SPECIES NAME Pisum sativum L.	4. FAMILY NAME *(Botanical)* Legume	FILING DATE 6·30·75 / TIME 10 A.M.
	5. DATE OF DETERMINATION Oct. 1, 1964	FEE RECEIVED $ 250.00 / $ 250.00 / $ 250 — BALANCE DUE $ — / $ — / $ —
6. NAME OF APPLICANT(S) Canners Seed Corporation	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* P.O. Box #512 Lewisville, Idaho 83431	8. TELEPHONE AREA CODE AND NUMBER Code 208-754-4519
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* Corporation	10. STATE OF INCORPORATION Delaware	11. DATE OF INCORPORATION Feb. 14, 1936

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

Paul H. Deniger, Pres.
Canners Seed Corporation
P.O. Box 1874
Idaho Falls, Idaho 83401

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 [ ] 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.

June 26, 1975
(DATE)

Paul H. Deniger
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

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.

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EXHIBIT A

ORIGIN AND BREEDING HISTORY

#8221 EARLY PERFECTION

Cross made in 1958 between Geneva 1 and Canners Seed Corporation #3019 Early Perfection by Earl J. Renard (Ph. D. Univ. of Wisconsin). Pure line selection made in 1962 after elimination of undesirable types and plants susceptible to root rot, on plot infected with root rots. This pure line produced uniform progenies over several years, with no variants that could be identified.

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EXHIBIT B

BOTANICAL DESCRIPTION OF THE VARIETY

#8221 EARLY PERFECTION

Medium sized, Wrinkled seed with green cotyledons. Strong seedlings. 1st flowers occur on 12th, 13th, or 14th nodes, with concentration on 13th node. Mostly two flowers per peduncle with occasional single. Length of vine 20 to 28 inches, depending on growing conditions and fertility of soil. Pods 2 7/8 to 3 1/4 inches long, well filled, with very slightly tapered apices. Medium sized leaves. Similar to some commercial Perfection varieties, but better producer for processing and seed than most. Resistant to common Fusarium wilt, and highly tolerant to root rots.

SEE ADDENDUM
5/27/76

ADDENDUM TO EXHIBIT B

#8221 EARLY PERFECTION

In addition, #8221 Early Perfection is resistant to Root Rots, whereas #3019 Early Perfection is not resistant. Also #8221 Early Perfection requires 67 days to processing stage whereas #3019 requires 68 days.

7500104

8. PODS:

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

[2] End: 1 = POINTED (Alderman) 2 = BLUNT (Alaska)

[2] Color: 1 = LIGHT GREEN (Alaska WR) 2 = MEDIUM GREEN 3 = DARK GREEN (Alderman) 4 = OTHER (Specify) _____

[1] Surface: 1 = SMOOTH 2 = ROUGH

[1] Surface: 1 = SHINY 2 = DULL

[2] Borne: 1 = SINGLE 2 = DOUBLE 3 = SINGLE AND DOUBLE 4 = SINGLE, DOUBLE, & TRIPEE 5 = DOUBLE & TRIPLE 6 = TRIPLE 7 = OTHER (Specify) _____

[08] CM. LENGTH

[15] MM. WIDTH (Between sutures)

[08] NO. SEEDS PER POD

9. SEEDS (95–100 Tenderometer):

[1] Color: 1 = LIGHT GREEN 2 = GREEN 3 = DARK GREEN 4 = OTHER (Specify) _____

Seive: %	1	2	3	4	5	6	7	8	AVERAGE
	02	09	25	44	18	02			373

SEEDS (Dry, Mature):

[2] Shape: 1 = FLATTENED 2 = ANGULAR 3 = OVAL 4 = ROUNDED

[3] Surface: 1 = SMOOTH 2 = DIMPLED 3 = WRINKLED

[2] Surface: 1 = SHINY 2 = DULL

[1] Color Pattern: 1 = MONOCOLOR 2 = MOTTLED 3 = STRIPED 4 = DOTTED

[3] Primary Color: 1 = CREAMY–WHITE 2 = CREAM & GREEN 3 = LIGHT GREEN 4 = MEDIUM GREEN 5 = DARK GREEN 6 = BLUE–GREEN 7 = YELLOW 8 = BROWN 9 = RED

[ ] Secondary Color: 10 = GRAY 11 = BLACK

[1] Hilum Floor Color: 1 = WHITE 2 = TAN 3 = BLACK

[1] Cotyledon Color: 1 = GREEN 2 = YELLOW 3 = ORAN

[20] GRAMS PER 100 SEEDS

10. DISEASE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[2] FUSARIUM WILT

[2] NEAR–WILT

[0] DOWNY MILDEW

[0] ASCOCHYTA BLIGHT

[1] POWDERY MILDEW

[1] BACTERIAL BLIGHT

[1] MOSAIC

[1] PEA ENATION MOSAIC

[0] YELLOW BEAN MOSAIC

[2] OTHER (Specify) Fusarium Root Rots

11. INSECT: (0= Not Tested; 1 = Susceptible; 2 = Resistant)

[1] APHIDS

[ ] OTHER (Specify) _____

12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	Early Perfection	Fresh Seed Color	Early Perfection
Leaf Color	Early Perfection	Mature Seed Color	Early Perfection
Pod Color	Early Perfection	Seed Shape	Early Perfection
Pod Shape	Early Perfection	Plant Habit	Early Perfection

COMMENTS:

EXHIBIT D

DATA INDICATIVE OF NOVELTY

#8221 Early Perfection

#8221 Early Perfection is of the general Early Perfection pea type, and most closely resembles #3019 Early Perfection, a standard commercial canning line. However, the two lines may be distinguished on the basis of their respective yields when grown in soils heavily infested with *Fusarium* root rots (*Fusarium* spp.).

The enclosed data was collected over five years of testing at the Canners Seed Corporation testing grounds at Lewisville, Idaho, and shows an average fold increase* of 34.4x for #3019 Early Perfection, and an average fold increase of 43.7x for #8221 Early Perfection. This difference in productivity is significant at the .01 (99%) level of confidence as measured by the Mann-Whitney U Test.

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*"Fold Increase" refers to the number of seed produced by a single plant, or the number of times a single seed will multiply itself when planted. Numbers are derived by planting a given number of seeds and averaging the number of seeds produced at maturity. The system is used instead of weights in small unit testing because of possible genetic variation in seed size, and measures the comparative field productivity potential of a given variety.

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ADDENDUM TO EXHIBIT D

#8221 Early Perfection

Application #7500104

COMPARATIVE FOLD INCREASES

#8221 E. P. vs #3019 E. P.

1967 - 1972

YEAR	FOLD INCREASES #8221 Ea. Perf.	#3019 Ea. Perf.
1967	40x	28x
1968	44x	35x
	30x	23x
	46x	34x
	51x	33x
	47x	35x
	47x	45x
	37x	30x
1969	54x	50x
	53x	42x
	51x	42x
	53x	29x
	35x	31x
1971	45x	36x
	33x	30x
1972	33x	28x
MEANS -	43.7x	- 34.4x

7500104

EXHIBIT E

BASIS OF APPLICANT'S OWNERSHIP

#8221 EARLY PERFECTION

Applicant is employer of breeder.

January 29, 1996

Mr. Hank Mende
Nunhems Seed Corporation
PO Box 18
221 E. Main Street
Lewisville ID 83431

Dear Mr. Mende:

SUBJECT: **Withdrawing Plant Variety Protection for Certificates No:**
7800060, PEA, '#9889 Freezer'
7800061, PEA, '#9901 Canner'
8000064, PEA, '8615 Early Perfection'
8000065, PEA, '9021 Early Perfection'
8900223, PEA, 'Boomer'
8900224, PEA, 'Booster'
8900225, PEA, 'Prairie'

In response to your letter of December 12, 1995, we are declaring the above certificates voluntarily withdrawn as of December 28, 1995. A notice that these certificates are no longer protected under the Plant Variety Protection Act will be published in the Plant Variety Protection Official Journal. **These certificates must be returned to our office.**

The remainder of the certificates listed in your letter have already expired, therefore, they do not need to be withdrawn or returned to our office. They are PV Numbers: 7500090; 7500104; 7600013; 7600015; and 7600016.

If you do not wish to voluntarily withdrawal these varieties, please notify us within 30 days from the date of this letter.

Sincerely,

Marsha A. Stanton, Commissioner
Plant Variety Protection Office
Telephone: (301) 504-5518
Facsimile: (301) 504-5291

MAS/mrm/sep

nunhems

Nunhems Seed Corporation
P.O. Box 18
221 E. Main St.
Lewisville, ID 83431
Phone: 208-754-8666
Fax: 208-754-8669

12 December, 1995

Plant Variety Protection Office
NAL Building Room 500
10301 Baltimore Blvd.
Beltsville, MD 20705-2351

Attention: Marsha Stanton, Ph D

Dear Dr. Stanton:

Please be advised that Nunhems Seed Corporation will be liquidated effective 31 December, 1995.

This being the case; we wish to transfer the follwing PVP registrations to our parent company in Holland. The following is the new assignee:

Nunhems Zaden B.V.
P.O. Box 4005
6080AA Haelen
The Netherlands
Attention: Lex Welles

The varieties to be assigned are as follows:

PVP Registration #	Variety	Kind	Year of Expiration
8200169	77 EP	Pea	2001
9300078	Scepter	Pea	2013
9300079	Captain	Pea	2013
8700051	9000 F	Pea	2005
8900230	Applause	Pea	2010
9300076	Point	Pea	2013
8900222	Ava	Pea	2010
9400082 (Pending)	Targhee	Pea	
7800059	9888 F	Pea	1996
9100213	Modus	Bean	2010
9100212	Fesca	Bean	2010

'95 DEC 28 A9:33
RECEIVED
USDA-AMS-PVPO

Our understanding is that the fee for transfer of ownership is $25.00 per variety. Enclosed please find our check in the amount of $275.00.

Please cancel PVP rights on the following registrations effective 31 December, 1995.

8000065, 7600015, 7500104, 7500090, 8000064, 7800060, 7600013, 7600016, 7800061, 8900224, 8900225, 8900223,

Yours truly,

Hank Mende

Hank Mende
Director of Administration

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-14
(5-15-74)

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

EXHIBIT C
(Pea)

OBJECTIVE DESCRIPTION OF VARIETY

PEA *(PISUM SATIVUM)*

NAME OF APPLICANT(S): Canners Seed Corporation

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*: P. O. Box 512, Lewisville, Idaho 83431

VARIETY NAME OR TEMPORARY DESIGNATION: #8221 Early Perfection

FOR OFFICIAL USE ONLY

PVPO NUMBER: 7500104

Place the appropriate number that describes the varietal character in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. TYPE:

[1] 1 = GARDEN 2 = FIELD 3 = EDIBLE-PODDED

2. MATURITY:

[13] Node number of first bloom: [0][6][8] No. of days to processing [1][4][8][0] Heat Units

[0][4] No. of days *Earlier* than . . . [5] 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

[1][0] No. of days *Later* than . . . . [1] 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

3. PLANT HEIGHT:

[0][6][8] CM. HIGH

[0][8] Cm. *Shorter* than . . . . . [2] 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

[2][2] Cm. *Taller* than . . . . . [3] 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

4. VINE:

[1] Habit: 1 = DETERMINATE 2 = INDETERMINATE [2] Stockiness: 1 = SLIM (Alaska) 2 = MEDIUM (Thomas Laxton WR) 3 = HEAVY (Alderman)

[2] Branching: 1 = NONE (Alaska) 2 - 1–2 BRANCHES (Little Marvel) 3 = MORE THAN 2 BRANCHES (Dwarf Gray Sugar

[2] Internodes: 1 = STRAIGHT 2 = ZIG ZAG [2][0] NUMBER OF NODES

5. LEAFLETS:

[2] Color: 1 = LIGHT GREEN (Alaska WR) 2 = MED. GREEN (Thomas Laxton WR) 3 = DARK GREEN (Alderman) 4 = OTHER (Specify)

[3] Wax: 1 = NONE 2 = LIGHT 3 = MEDIUM 4 = HEAVY [2] 1 = NOT MARBLED 2 = MARBLED (Alaska)

[4] Number of leaflet pairs: 1 = NOT PAIRED 2 = ONE 3 = TWO 4 = THREE OR MORE

6. STIPULES:

[2] 1 = LACKING 2 = PRESENT [2] 1 = NOT CLASPING 2 = CLASPING

[2] 1 = NOT MARBLED 2 = MARBLED [3] Size (Compared with leaflets): 1 = SMALLER 2 = SAME 3 = LARGER

[2] Color (Compared with leaflets): 1 = LIGHTER 2 = SAME 3 = DARKER

7. FLOWER COLOR:

[1] VENATION [1] STANDARD [1] WING [1] KEEL } 1 = WHITE 2 = GREENISH 3 = LAVENDER 4 = PURPLE 5 = RED 6 = OTHER (Specify) 5

	#8221 EP	Columbia
Hgt	68	79
Dam	68	68
leaf color	Med green	Med green