No. 7200067

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Morrison Brothers Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA

'Alsweet II'

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:

S. G. Rollin

Commissioner
Plant Variety Protection Office
Grain Division

Earl L Butz

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 Alsweet II	2. KIND NAME Pea	FOR OFFICIAL USE ONLY PV NUMBER 72067
3. GENUS AND SPECIES NAME Pisum Satiuum	4. FAMILY NAME *(Botanical)* Leguminosae	FILING DATE 12·22·71 / TIME 1:15 P.M.
	5. DATE OF DETERMINATION 7/68	FEE RECEIVED $ 250 00 / $ 250 00 / $ 250 00 / BALANCE DUE $ — / $ — / $ —
6. NAME OF APPLICANT(S) MORRISON BROS. SEED CO.	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* E. 7509 Sprague Ave. Spokane, Washington 99213	8. TELEPHONE AREA CODE AND NUMBER 509-924-1404
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* Corporation	10. STATE OF INCORPORATION Washington	11. DATE OF INCORPORATION 1924

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

MORRISON BROS. SEED COMPANY
P. O. BOX 13066
SPOKANE, WASHINGTON 99213

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 [XXX] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [ ] YES [XX] 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.

MORRISON BROS. SEED COMPANY

September 5, 1973
(DATE)

(SIGNATURE OF APPLICANT)
BRUCE TAINIO

(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.

RECEIVED SEP 11 '73 U.S. DEPARTMENT AMS, PVPO

72067

EXHIBIT A

This canning type pea was developed by crossing Small Sieve Alaska Strain M163 with our Alsweet Strain 148. Progeny of this cross were advanced to the F_3 generation where separate wrinkled and round selections were made. Seed produced from these F_3 selections was grown out and observed for doubling character. Only double podded plants were selected from the progeny of the F_3 round selections. This F_4 material was advanced to the F_6 generation where a bulk selection of wrinkled seeded material was increased to the F_8 where simgle plant selections were made on the basis of doubling, seed size, wrinkled, and plant size. This material was then increased to its present quantities over a four-year period.

During our increase period we have observed a tendency for this variety to throw an occasional plant (1:10,000) which will have thick-walled pods and larger ovules. We do feel that this is related to environment conditions and not a genetic breakdown of the seed. When these variants are planted they appear to be normal. As a precautionary measure, we have been annually processing this trial variety over a 17/64 round screen to eliminate these larger types. The genetic make-up of this variety is stabilized.

em 12B - *(Alsweet II) Comparison to (Alsweet, AA 15 or 4683)

Season: *Fifty-five (55) days to canning, first bloom on 9th node. 2 days earlier

Fifty-seven (57) days to canning, first bloom on 9th node.

Vine: *Slender, indeterminate, slightly yellow green, 18 to 24 inches tall. 46 61 a 15 cm shorter

Slender, indeterminate, yellow green, 25 to 29 inches tall.

Pods: *Light green, straight, blunt and mostly double. dbl podded

Light green, straight, blunt and borne singly.

Berries: *Five to seven (5 to 7) small berries, sieve size range from 1's through 4 sieve at 100 tenderometer. smaller size

Five to seven (5 to 7), sieve size range from 1's through 5 sieve at 100 tenderometer.

Seed: *Wrinkled, small, blue green, 1,000 seeds weigh 130 to 145 grams. 137 lighter wt

Wrinkled, small, blue green, 1,000 seeds weigh 150 to 170 grams. 160 22 gm/100 diff

Heat Units: *1100 at 100 tenderometer less heat units = earlier

1200 at 100 tenderometer

*Average sieve sizes at 100 tenderometer Alsweet II

1	2 (98%)	3	4	5	= 2.32
15%	40%	43%	2%	0%	

smaller sieve

Average sieve sizes at 100 tenderometer Alsweet-AA 15

1	2 (65%)	3	4	5	= 3.05
10%	20%	35%	25%	10%	

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-14
(10-2-72)

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

EXHIBIT C
(Pea)

OBJECTIVE DESCRIPTION OF VARIETY

PEA (*PISUM SATIVUM*)

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
MORRISON BROS. SEED CO.

ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*)
P.O. Box 13066
Spokane, Washington 99213

FOR OFFICIAL USE ONLY
PVPO NUMBER
72067
VARIETY NAME OR TEMPORARY DESIGNATION
Alsweet II

Place the appropriate number that describes the varietal character of this variety 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 = TALL (Internodes ~~zigzag~~) ZIGZAG
2 = DWARF (Internodes zigzag)

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

2. SEASON:

[1] Node number of first bloom: 1 = EARLY (8 - 12th node) 2 = MIDSEASON (13 - 24th node) 3 = LATE (Greater than 24th node)

3. MATURITY:

55

[ ][1] No. of days *Earlier* than ..... [1]
[x][x] No. of days *Later* than ..... [x]

1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL
4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

4. PLANT HEIGHT:

[0][5][5] CM. HIGH

[1][0] Cm. *Shorter* than ..... [3]
[4][5] Cm. *Taller* than ..... [5]

1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL
4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

5. VINE:

2 [1] Habit: 1 = DETERMINATE 2 = INDETERMINATE

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

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

[1] Node Color: 1 = GREEN 2 = RED BLOTCH

[0][9] NUMBER OF NODES

[ ][ ] CM. INTERNODE LENGTH (Just below 1st flowering node)

6. LEAFLETS:

[1] 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

[ ] Marbling: 1 = NONE 2 = MARBLED (Alaska)

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

7. STIPULES:

[2] 1 = LACKING 2 = PRESENT

[1] 1 = NOT CLASPING 2 = CLASPING

[2] 1 = NOT MARBLED 2 = MARBLED

[2] Size (Compared with leaflets): 1 = SMALLER 2 = SAME 3 = LARGER

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

8. FLOWER COLOR:

[1] 1 = MONOCOLOR 2 = BICOLOR

[2] Venation [1] Standard [1] Wing [1] Keel

4

1 = WHITE 2 = GREENISH 3 = LAVENDER 4 = PURPLE
5 = RED 6 = OTHER (Specify) _____

RECEIVED
MAY 20 1974
M.B.S. CO.

'Alsweet II' PV#7200067

13D. Exhibit D:

'Alsweet II' most closely resembles 'Alsweet AA15 or 4683' but differs by: (1) 2 days earlier maturity, (2) 100 less heat units required, (3) 15 cm shorter vine, (4) double rather than single pods, (5) average sieve size at 100 tenderometer 2.32 compared with 3.05, (6) seed weight 23 grams per 1,000 lighter.

Morrison Bros Seed Co by
Bruce Lamb

9. PODS:

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

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

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

[2] Surface: 1 = SMOOTH 2 = ROUGH

[2] 1 = SHINY 2 = DULL

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

[0 6] CM. LENGTH [1 2] MM. WIDTH (Between sutures) [0 6] NUMBER OF SEEDS PER POD

10. SEEDS (95 - 100 Tenderometer):

[1] Color: 1 = LIGHT GREEN (Perfection Canner) 2 = GREEN (Little Marvel) 3 = DARK GREEN (Dark Skin Perfection) 4 = OTHER (Specify) _____

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

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

[2] Surface: 1 = SHINY 2 = DULL

SEEDS (Mature, Dry):

[2] Color: 1 = MONOCOLOR 2 = BICOLOR

[8] Primary Color: 1 = CREAMY-WHITE (Mammoth Melting Sugar) 2 = YELLOW (Arthur) 3 = CREAM & GREEN (Thomas Laxton) 4 = YELLOW 5 = LIGHT GREEN (Alderman) 6 = MEDIUM GREEN (Little Marvel)

[5] Secondary Color: 7 = DARK GREEN (Dark Skin Perfection) 8 = BLUE-GREEN (Alaska WR) 9 = BROWN 10 = RED 11 = GRAY 12 = BLACK

[2] Color Pattern: 1 = SPLASHED 2 = MOTTLED 3 = STRIPED 4 = FLECKED 5 = DOTTED

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

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

[1 3] GRAMS PER 100 SEED

11. SEED SIEVE SIZE DISTRIBUTION (95 - 100) Tenderometer): AVE 2.32

Sieve (%): [1 5] 1 [4 0] 2 [4 3] 3 [0 2] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8

12. PLANT REACTION: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[0] 1 = DROUGHT (Wando) [0] 2 = COLD (Alaska) [0] 3 = HEAT (Wando)

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

[2] FUSARIUM WILT [1] NEAR-WILT [0] DOWNY MILDEW

[0] ASCOCHYTA BLIGHT [0] POWDERY MILDEW [0] BACTERIAL BLIGHT

[0] MOSAIC [0] PEA ENATION MOSAIC [0] YELLOW BEAN MOSAIC

[0] OTHER (Specify) _____

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

[1] APHIDS [0] OTHER (Specify) _____

15. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	Small Sieve Alaskas	Fresh Seed Color	Alsweet
Leaf Color	Alsweet	Mature Seed Color	Alsweet
Pod Color	Small Sieve Alaskas	Seed Shape	Alsweet ?
Pod Shape	Small Sieve Alaskas	Plant Habit	Small Sieve Alaskas

REFERENCES: The following publication may be used as a reference aid for the standardization of character descriptions and terms:

1. Shoemaker, D. N., 1934. Descriptions of Types of Principal American Varieties of Garden Peas. U.S.D.A. Miscellaneous Publication, No. 170.
2. Hedrick, V. P., 1928. The Vegetables of New York. New York Agricultural Experiment Station. Vol. 1., Part 1.
3. Wade, B. L., 1943. A Key to Pea Varieties. U.S.D.A. Circular No. 676.

Nickerson's or any recognized color fan may be used to determine color of the described variety.

13 E EXHIBIT E

ALSWEET II

Statement of Applicant's Ownership'

Morrison Bros. Seed Company of Spokane, Washington is the employer of the breeder of this variety. We also believe that we are the sole, original and first breeder of the Alsweet II variety of peas for which we solicit a certificate of protection.

Item 12D - Average dry seed return per acre for 1970 and 1971 grown in Fairfield, Washington 1936 pounds per acre.

ALSWEET II - PROCESSING DATA

	Date of Planting	Degree Days to 100 Tenderometer	Yield at 100 Tenderometer	Comp. Tend. at Harvest	% Sizes 1-4	Tend. of 1-4	% Sizes 5 & Over	Tend. of 5 & over	Plants/A 000'S	Vine Height Inches
Canada Trial	5-6-70	1100	2470	110	100	110	0	0	597	14-21
	5-19-70	1110	2770	114	100	114	0	0	625	17-23
England Trial	5-3-71		2550	131	98		2			50
Wisconsin	5-26-69		3793	102	94		6		613	18-24
	4-30-70		3521	100	100	100	0	0	601	16-23
	4-24-71				100	102	0	0		20.5
	5-14-71				100		0	0		21.1

Scale of 1-5
Maximum = 5

	Nodes to 1st Bloom	Podding	Peas per Pod	No. Pod Bearing Nodes	Pods per Vine	Brine Taste	Brine Appearance	Butter Sauce Taste	Butter Sauce Appearance
Canada	8-10	Single Double	4 to 7	3-5	4-6				
	8-10	Single & Double	4-6	3-5	4-6				
England	9	Double							
Wisconsin	9-10	Sand. D	3-6	2-4	4-8	3.4	5.0	4.7	5.0
	9-10	S & D	4-7						
	8.8	S & D	3.6		5.5	4.7	4.8		
	9.4	S & D	3.5		4.7	4.9	4.1		

Item 12E - The applicant is the employer of the breeder.