No. 7800036

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

W. Brotherton Seed Company, 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, 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 (P.L. 91-577, 84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA

'AVON'

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* 18th *day of* May *in the year of our Lord one thousand nine hundred and* seventy-eight

Attest:

Acting
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(1-76)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
PLANT VARIETY PROTECTION OFFICE
NATIONAL AGRICULTURAL LIBRARY
BELTSVILLE, MARYLAND 20705

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1a. TEMPORARY DESIGNATION OF VARIETY "AVON"	1b. VARIETY NAME "AVON"	FOR OFFICIAL USE ONLY PV NUMBER 7800036
2. KIND NAME Garden Pea	3. GENUS AND SPECIES NAME Pisum sativum	FILING DATE 3-17-78 TIME 3:00 A.M. (P.M.)
4. FAMILY NAME (BOTANICAL) Leguminosae	5. DATE OF DETERMINATION Nov. 1968	FEE RECEIVED $ 250.00 DATE 3-17-78 $ 250.00 3-17-78 $ 250.00 3-17-78
6. NAME OF APPLICANT(S) W. Brotherton Seed Co. Inc.	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* P. O. Box 906 Moses Lake, WA. 98837	8. TELEPHONE AREA CODE AND NUMBER 509/765-5131
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* Corporation	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Washington Feb. 1955	11. DATE OF INCORPORATION Feb. 1955

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

Wilber Brotherton 3rd, Pres. or H. B. Brotherton, Vice Pres.
W. Brotherton Seed Co., Inc.
P. O. Box 906
Moses Lake, WA. 98837

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, Novelty Statement.

[X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*

[X] 13D. Exhibit D, Additional Description of the Variety.

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [ ] YES [X] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [ ] YES [X] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? [ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

15. Does the applicant(s) agree to the publication of his/her (their) name(s) and address in the Official Journal? [X] YES [ ] NO

16. The applicant(s) declare(s) 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) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) 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 Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

24 Feb 1978 (DATE) — Wilber Brotherton 3rd Pres (SIGNATURE OF APPLICANT)

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(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, National Agricultural Library, Beltsville, Maryland 20705. (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 Give the date the applicant determined that he had a new variety based on (1) the definition in Section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give (1), the genealogy, including public and commerical varieties, lines, or clones used, and the breeding method. (2), the details of subsequent stages of selection and multiplication. (3), the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4), evidence of stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties; (1) identify these varieties and state all differences objectively; (2) Attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit C, Objective Description form for all characteristics, for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe; such as; plant habit, plant color, disease resistance, etc.

14A If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled or published or the certificate has been issued. However, if the applicant specifies "NO", he may change his choice. (See Section 180.15 of the Regulations and Rules of Practice.)

EXHIBIT A.
ORIGIN & BREEDING HISTORY OF THE VARIETY

1.) Avon originated in Moses Lake, WA. in 1968 as a hand-pollinated cross between an unknown multi-podded variety (selected out of a commercial field in Moses Lake, WA.) and a variety designated Peru II. Peru II is a tall, indeterminate, late (23rd node), round, yellow seeded variety which is resistant to Fusarium oxysporum Race 5. This original cross was made in the greenhouse in the winter of 1968-1969.

2.) F_1 seed were grown in Moses Lake, WA. in 1969 and in 1970 were tested for disease resistance in the Skagit Valley of Washington. Single plant selections were subsequently increased in New Zealand in the winter of 1971-1972 and again in the Skagit Valley in 1972. F_5 generation seed were increased in Moses Lake, WA. in 1973 and further selected for multi-podding habit, determinate plant types and season (13th node). A further increase was made in Moses Lake, WA. in 1974 and since then sufficient seed has been obtained to put this variety out for commercial trials.

3.) Due to the parentage of this variety the main difficulty has been in stabilizing the vine height and the pod size. This was accomplished by making a great deal of single plant selections in the early generations for desired types and mass selections in the F_5 generation.

EXHIBIT B. "Avon"

Application No. 7800036

"Avon" most clasely resembles the variety "Puget" but differs by the following characteristics. "Avon" is a midseason type freezing pea while "Puget" is a late season type, being one to two days later. "Avon" is resistant to Fusarium oxysporum Race 5 where "Puget" is susceptible.

EXHIBIT ~~F~~ B. 4/19/78
DATA INDICATIVE OF NOVELTY

The novelty of this variety (Avon) is based on the following characteristics:

1.) Disease resistance to Fusarium oxysporum Race 5

2.) Season: 1 to 2 days earlier than Puget, i.e. Mid-season type freezing pea

3.) Multi-podded habit

Neither parent or as far as we know, no other variety exhibits all three of these characteristics.

FORM APPROVED. OMB NO. 40-R3712

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

EXHIBIT C
(Pea)

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

OBJECTIVE DESCRIPTION OF VARIETY

PEA *(PISUM SATIVUM)*

NAME OF APPLICANT(S)
W. BROTHERTON SEED CO., INC.

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
P. O. Box 906
Moses Lake, WA. 98837

VARIETY NAME OR TEMPORARY DESIGNATION
AVON

FOR OFFICIAL USE ONLY
PVPO NUMBER 7800036

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][6][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 . . . . [X1] 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

3. PLANT HEIGHT:

[0][7][1] CM. HIGH

[3X][1] Cm. *Shorter* than . . . . . [5] 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

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

4. VINE:

[1] Habit: 1 = DETERMINATE 2 = INDETERMINATE [3] 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 [1][8] NUMBER OF NODES

5. LEAFLETS:

[3] 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)

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

6. STIPULES:

[2] 1 = LACKING 2 = PRESENT [1] 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:

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

EXHIBIT D. 4/19/78

7800036

BOTANICAL DESCRIPTION OF THE VARIETY

"Avon", formally designated Freezer 760 in our breeding program is a mid-season type freezing pea, quite similar to the variety Puget.
Avon has a medium vine length (71 cm.) with relatively short internodes and is the same height as Puget.
Avon has a multi-podding habit of bearing 2 to 3 pods per peduncle. The pods and green peas at canning stage are quite indestinguishable from those of Puget. Avon differs from Puget primarily in that it is 1 to 2 days earlier and is resistant to Fusarium oxysporum Race 5 where Puget is susceptible.

EXHIBIT E.
STATEMENT OF THE BASIS OF APPLICANT'S OWNERSHIP

W. Brotherton Seed Co., Inc. is the employer of the actual breeder of this variety (Avon), the breeder being Harley B. Brotherton

W. Brotherton Seed Co., Inc.

Wilber Brotherton 3rd

By: Wilber Brotherton 3rd. Pres.

7800036

8. PODS:

[2] 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

[2] Surface: 1 = SHINY 2 = DULL

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

[0 8] CM. LENGTH

[1 7] MM. WIDTH (Between sutures)

[0 6] NO. SEEDS PER POD

9. SEEDS (95–100 Tenderometer):

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

	1	2	3	4	5	6	7	8	AVERAGE
Selve: %	0 1	1 0	1 6	2 6	3 2	1 5	-- --	-- --	4. 2 3

SEEDS (Dry, Mature):

[3] 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

[4] 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

[3] Secondary Color: 10 = GRAY 11 = BLACK

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

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

[2 2] GRAMS PER 100 SEEDS

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

[2] FUSARIUM WILT

[0] NEAR–WILT

[0] DOWNY MILDEW

[0] ASCOCHYTA BLIGHT

[1] POWDERY MILDEW

[0] BACTERIAL BLIGHT

[0] MOSAIC

[0] PEA ENATION MOSAIC

[0] YELLOW BEAN MOSAIC

[2] OTHER (Specify) Fusarium oxysporum Race 5

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

[0] APHIDS

[ ] OTHER (Specify) _____

12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	Puget	Fresh Seed Color	Puget
Leaf Color	Puget	Mature Seed Color	Puget
Pod Color	Puget	Seed Shape	D. S. P.
Pod Shape	Puget	Plant Habit	Puget

COMMENTS: