No. 7800017

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Ardie G. Gustafson, Seedsman

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 (7 U.S.C. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA

'Granada'

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* 20th *day of* April *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
(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 GRANADA	2. KIND NAME Peas	FOR OFFICIAL USE ONLY PV NUMBER 7800017
3. GENUS AND SPECIES NAME Pisum Sativum	4. FAMILY NAME *(Botanical)* Leguminosae	FILING DATE 1-3-78 / TIME 10:00 A.M. P.M.
	5. DATE OF DETERMINATION	FEE RECEIVED $250.00 / BALANCE DUE $1-3-78 $250.00 / $1-3-78 $250.00 / $3-1-78
6. NAME OF APPLICANT(S) Ardie G. Gustafson Seedsman	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* 4th and D Street P. O. Box 855 Lewiston, Idaho 83501	8. TELEPHONE AREA CODE AND NUMBER 208/743-6261
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*	10. STATE OF INCORPORATION	11. DATE OF INCORPORATION

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

Ardie G. Gustafson, Seedsman
4th & D Street
P.O. Box 855
Lewiston, Idaho 83501

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 [X] NO

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

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

Jan 16, 1978
(DATE)

Ardie G. Gustafson
(SIGNATURE OF APPLICANT)

1

(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
1/23/78
dw

EXHIBIT A

Origin and Breeding History of the Variety

1. Granada originated in Idaho from crosses of W.S.U. 691008 (PI244113 and Scout). This cross was then used as the male parent and crossed with Hustler (AG 311F), a very early cultivar. These crosses were made in the winter of 1960-70 and the summer of 1970.

W.S.U. 691008 was tested by Dr. W. A. Haglund, Plant Pathologist, Northwest Washington Research and Extension Unit, Mt. Vernon, Washington. Tests proved that the cross was resistant to Race 5 Fusarium wilt. Dr. Haglund released the cross for breeding material. The first cross was made in the growth chamber at Lewiston, Idaho. The second cross was made in an increase plot at Pullman, Washington.

2. Single plant selections were made in 1972 in the F4 generation. Work by Dr. Fred Muehlbauer, Research Geneticist, U.S.D.A. Washington State University proved the cross was resistant to Race 1 Fusarium wilt. Further testing in Mt. Vernon, Washington, by Dr. W. A. Haglund, resulted in the material being resistant to both Race 5 and Race 6 Fusarium wilt.

3. The probability of a Rogue type is one in 10,000. Genetically the cultivar was stabalized in the F4 generation.

EXHIBIT B

Botanical Description of the Variety

1. Granada is a Early Perfection type freezer pea. Maturity being three days earlier than Scout.

2. The variety is a Perfection type vine, internodes zigzag, stiff straw, with a heighth of twenty five to twenty eight inches. Node color is green internode. Length being about two to two and one half C.M. First inflorescence being on the tenth node. Leaflets are paired two or more, medium wax. Stipules are marbled, waxed, very dark green and non clasping. Flowers are white with greenish venation, bearing mostly doubles. Seeds being wrinkled with yellow cotyledons.

Granada most closely resembles Scout. It differs, by maturing 2-3 days earlier. The vine being slightly shorter with longer internodes.

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): Ardie G. Gustafson

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code): 4th & D Street Box 855, Lewiston, Idaho 83501

VARIETY NAME OR TEMPORARY DESIGNATION: 'GRANADA'

FOR OFFICIAL USE ONLY

PVPO NUMBER: 7800017

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:

[1][0] Node number of first bloom: [6][2] No. of days to processing [1][2][6][5] Heat Units

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

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

3. PLANT HEIGHT:

[4][7] CM. HIGH

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

[0][9] 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)

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

8. PODS:

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

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

[3] 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

[2] 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 5] 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) _____

Seive: % 100 TR	1	2	3	4	5	6	7	8	AVERAGE
	1	2	8	25	30	34			48 ~~4~~ 3

7/47 1/13/77

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

[0 2] Primary Color:

[0 3] Secondary 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 10 = GRAY 11 = BLACK

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

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

[2 1] 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

[1] MOSAIC

[1] PEA ENATION MOSAIC

[0] YELLOW BEAN MOSAIC

[ ] OTHER (Specify) Resistant to Race 1 - 5 - 6 Fusarium wilt

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	Scout	Fresh Seed Color	Scout
Leaf Color	Scout	Mature Seed Color	Scout
Pod Color	Scout	Seed Shape	Scout
Pod Shape	Scout	Plant Habit	Scout

COMMENTS:

EXHIBIT D

Data Indicitive of Novelty

Novelty is based on the following characters

Granada most closely resembeles Scout, but differs by maturing three days earlier than Scout. Granada is also resistant to Race 5 and Race 6 Fusarium wilt.

EXHIBIT E

Statement of Applicants Ownership

Ardie G. Gustafson, Seedsman of Lewiston, Idaho, believes he is the sole, original and first breeder of Granada variety of pea seed for which he solicits a certificate of protection.