No. 7500040

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, 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. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS [illegible]ED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA
'Prospector'

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, D.C. *this* 29th *day of* September *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: Prospector	2. KIND NAME: Peas	FOR OFFICIAL USE ONLY PV NUMBER: 7500040
3. GENUS AND SPECIES NAME: Pisum Sativum	4. FAMILY NAME *(Botanical)*: Leguminosae	FILING DATE: 12·9·74 / TIME: 1 ~~A.M.~~ P.M.
	5. DATE OF DETERMINATION: January 1973	FEE RECEIVED: $ 250.00 / $ 250.00 / $ 250.00 / BALANCE DUE: $ — / $ — / $ —
6. NAME OF APPLICANT(S): ~~Western Valley Seed Co.~~ Ardie G. Gustafson, Seedsman	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*: ~~317 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.)*: ~~Corporation~~	10. STATE OF INCORPORATION: ~~Idaho~~	11. DATE OF INCORPORATION: ~~January 27, 1953~~

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

Ardie G. Gustafson, ~~President~~
~~Western Valley Seed Company~~
~~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.)* [x] YES [ ] 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

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.

Dec 5, 1974 (DATE) — Ardie G. Gustafson (SIGNATURE OF APPLICANT)

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(DATE) — (SIGNATURE OF APPLICANT)

RECEIVED
DEC 9 1974
U. S. DEPARTMENT OF AGRICULTURE
AMS, GRAIN DIV.
PVPO

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.

EXHIBIT "A"

Origin and Breeding History of the Variety

1. "Prospector" originated in Idaho in 1963 from a hand pollinated cross between "Afila" as the male parent and W.V. 131C as the female parent.

2 The pea germ plasm "Afila" was obtained from Dr. G. A. Marx of Cornell University, New York State Agricultural Experiment Station, Geneva, New York. Certain plant breeders are using one or more of the narrow-leaf mutants in an effort to reduce the amount of foliage. Better standability and less foliage ensures greater efficiency in terms of light distribution and absorption. Light distribution is becoming recognized as a vital factor, not only from the standpoint of it's influence on yield but, also from the standpoint ofblonding. "Prospector" is a relatively new concept in a vine type giving a better pea-vine ratio, with it's reduced stipule. From the original cross subsequent generations were multiplied in Idaho through greenhouse and outside plot production. Pure line selections were made in the F5 generation at Oregon State University at the Corvallis Enation and Streak virus trials in 1972. In 1973 "Prospector" was also tested at the Northwest Washington Experimental Station at Prosser, Washington; Cornell University at Geneva, New York; Washington State University at Pullman, Washington. Through these experiments it has been established that "Prospector is resistant to Fusarium wilt (Race 1 & Race 6), Mosiac, Enation, Streak Virus and is tolerant to to Pythium and root rot. "Prospector" has been tested and evaluated for yield, quality and plant type by commercial processors in the United States and Canada.

3. This variety was stabalized in the fifth generation. No distinct varients have been observed in subsequent generations.

EXHIBIT " B"

Botanical Description of the Variety

1. "Prospector" is a canning variety, Afila ("E") type vine, very determinate wiry, double podded, with a mid-season maturity.

2. The straw is stiff and erect; good seedling vigor, determinate with a 20 inch plant height. The plant color is medium green, node color is green; internodes being about one inch. First inflorescence being on the seventeenth node. Leaflets are paired usually two, medium wax stipules are reduced and smaller than the leaflets. Flowers are white with greenish venation; usually born as doubles with some triples. The ovule count is high; up to ten berries per pod. "Prospector" most closely resembles the canning variety W.V. 5C Early Perfection. The difference being the vine is ten inches shorter with reduced stipules, more wiry, green cotyledons, not a perfection vine. The resemblance to W.V. 5C is a mid-season canner with a small berry size; while retaining high quality and yield as a finished product.

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, Seedsman

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

VARIETY NAME OR TEMPORARY DESIGNATION
PROSPECTOR

FOR OFFICIAL USE ONLY
PVPO NUMBER 7500040

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][7] Node number of first bloom: [0][7][5] No. of days to processing [1][8][1][0] Heat Units

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

[0][3] No. of days *Later* than . . . . [5] 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

3. PLANT HEIGHT:

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

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

[0][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][7] 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)

[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

[1] 1 = NOT MARBLED 2 = MARBLED [1] 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 [2] WING [1] KEEL } 1 = WHITE 2 = GREENISH 3 = LAVENDER 4 = PURPLE 5 = RED 6 = OTHER (Specify) _____

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4 of 10

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EXHIBIT "D"

Data Indictive of Novelty

Novelty is based on the Unique combination of the following characters.

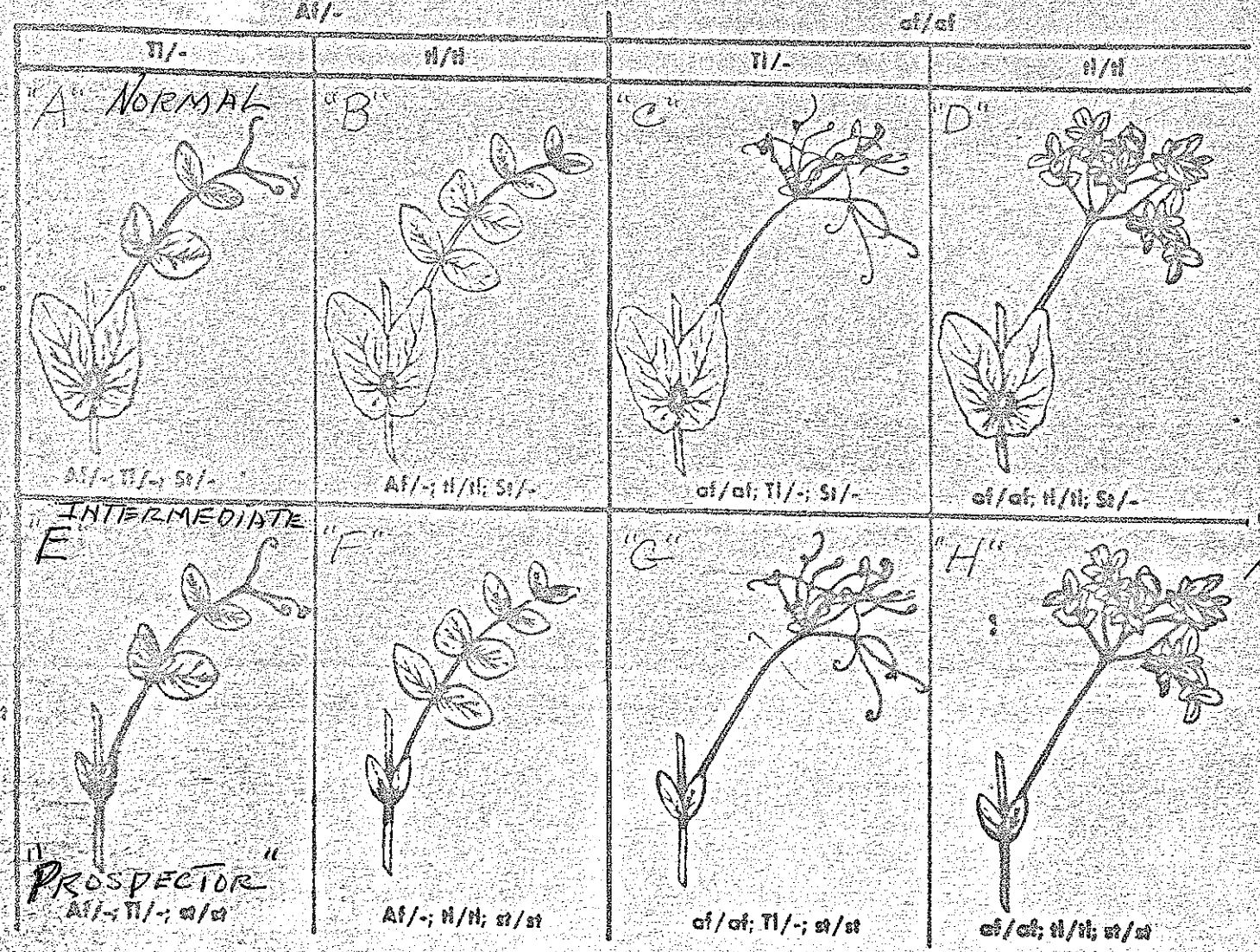
"Prospector" most closely resembles W.V. 5C Early Perfection, except it has
(1.) reduced stipules, a new concept in a open type vine.
(2.) shorter by ten inches
(3.) resistant to Enation, Streak virus, ~~Fusarium wilt (Race 1 & 6)~~, ~~Mosiac and tolerant to Pithium and root rot~~.

7/29/76

Enclosure:
Relationship among mutant genes affecting the configuration of pea leaves.

7500040

THE GENOTYPIC AND PHENOTYPIC RELATIONSHIPS AMONG THREE MUTANT GENES WHICH AFFECT THE CONFIGURATION OF PEA LEAVES



DOMINANT (Af) GIVES NORMAL
RECESSIVE (af) GIVES LEAFLETS TRANSFORMED INTO TENDRILS

DOMINANT (Tl) GIVES NORMAL
RECESSIVE (tl) GIVES ALL LEAFLETS AND NO TENDRILS

DOMINANT (St) GIVES NORMAL STIPULES
RECESSIVE (st) GIVES REDUCED STIPULES

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ASSIGNMENT

WESTERN VALLEY SEED CO., a corporation organized and doing business under the laws of the State of Idaho, with its principal office at 317 D Street, City of Lewiston, County of Nez Perce, State of Idaho, in pursuance of a resolution of the Board of Directors of the corporation passed on December 23, 1975, and in consideration of a surrender of 555 shares of its common stock, the receipt of which is acknowledged, hereby selles, assigns, transfers, and sets over to ARDIE G. GUSTAFSON of 1421 Prospect, City of Lewiston, County of Nez Perce, State of Idaho, all its right, title and interest in and to that certain property described as follows:

All accounts receivable,
Refund of unearned insurance premiums receivable,
Refund of federal and Idaho corporate income taxes receivable,
All right, title and interest in and to that certain agreement dated the 10th day of January, 1975, by and between Western Valley Seed Co., as seller, and Crites Moscow Growers, Inc., as buyer,
All right, title and interest in and to that certain license agreement dated the 10th day of January, 1975, executed by and between Western Valley Seed Co., as seller, and Crites Moscow Growers, Inc., as buyer,
Equitable Life Assurance Society policy No. 61 241 718, insuring the life of Ardie G. Gustafson,
All right, title and interest in and to Plant Variety Protection Act Certificates,
One share of preferred stock of New York Seed Improvement Cooperative, Inc., represented by Certificate No. 21, dated June 29, 1970,
All right, title and interest in and to all assets of Western Valley Seed Co., an Idaho corporation, whether or not enumerated hereinabove.

IN WITNESS WHEREOF, the corporation has executed this assignment

RANDALL, BENGTSON & COX
LAWYERS
FIRST SECURITY BANK BUILDING
LEWISTON, IDAHO 83501

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the 23 day of December, 1975.

WESTERN VALLEY SEED CO.

By Ardie G Gustafson
President

ATTEST:

Shannette S Gustafson
Secretary

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EXHIBIT " E "

Statement of Applicants Ownership

Ardie G. Gustafson, Seedsman ~~Western Valley Seed Company,~~ Lewiston, Idaho, believes it is the sole original and first breeder of the "Prospector" variety of pea seed for which it solicits a certificate of protection.

U. S. DEPARTMENT OF AGRICULTURE
AMS, GRAIN DIV.
PVPO
JUN 28 1976

8. PODS:

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

[1] 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

[4] 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 6] MM. WIDTH (Between sutures) [1 0] 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
	11	22	38	27	02	00	00	00	287

SEEDS (Dry, Mature):

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

[2] 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

[4] 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

[1 7] GRAMS PER 100 SEEDS

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

[2] FUSARIUM WILT (Race 1 & 6)

[0] NEAR–WILT

[0] DOWNY MILDEW

[0] ASCOCHYTA BLIGHT

[0] POWDERY MILDEW

[0] BACTERIAL BLIGHT

[2] MOSAIC

[2] PEA ENATION MOSAIC

[0] YELLOW BEAN MOSAIC

[2] OTHER (Specify) Resistant to Streak & Tollerant to Pythium & Root Rot

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

[0] APHIDS

[0] OTHER (Specify) _____

12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	Afila (see enclosure)	Fresh Seed Color	W.V 5C Early Perf.
Leaf Color	WV 5C Early Perfection	Mature Seed Color	W.V. 5C Early Perf.
Pod Color	WV 5C Early Perfection	Seed Shape	W.V. 5C Early Perf.
Pod Shape	WV 5C Early Perfection	Plant Habit	Afila

COMMENTS: PROSPECTOR is one of the segregates using the Afila type as one parent, the reduced stipule type resulting.

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