

No.

8400094



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Asgrow 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 *eighteen* 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, 1930, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA

'Envy'

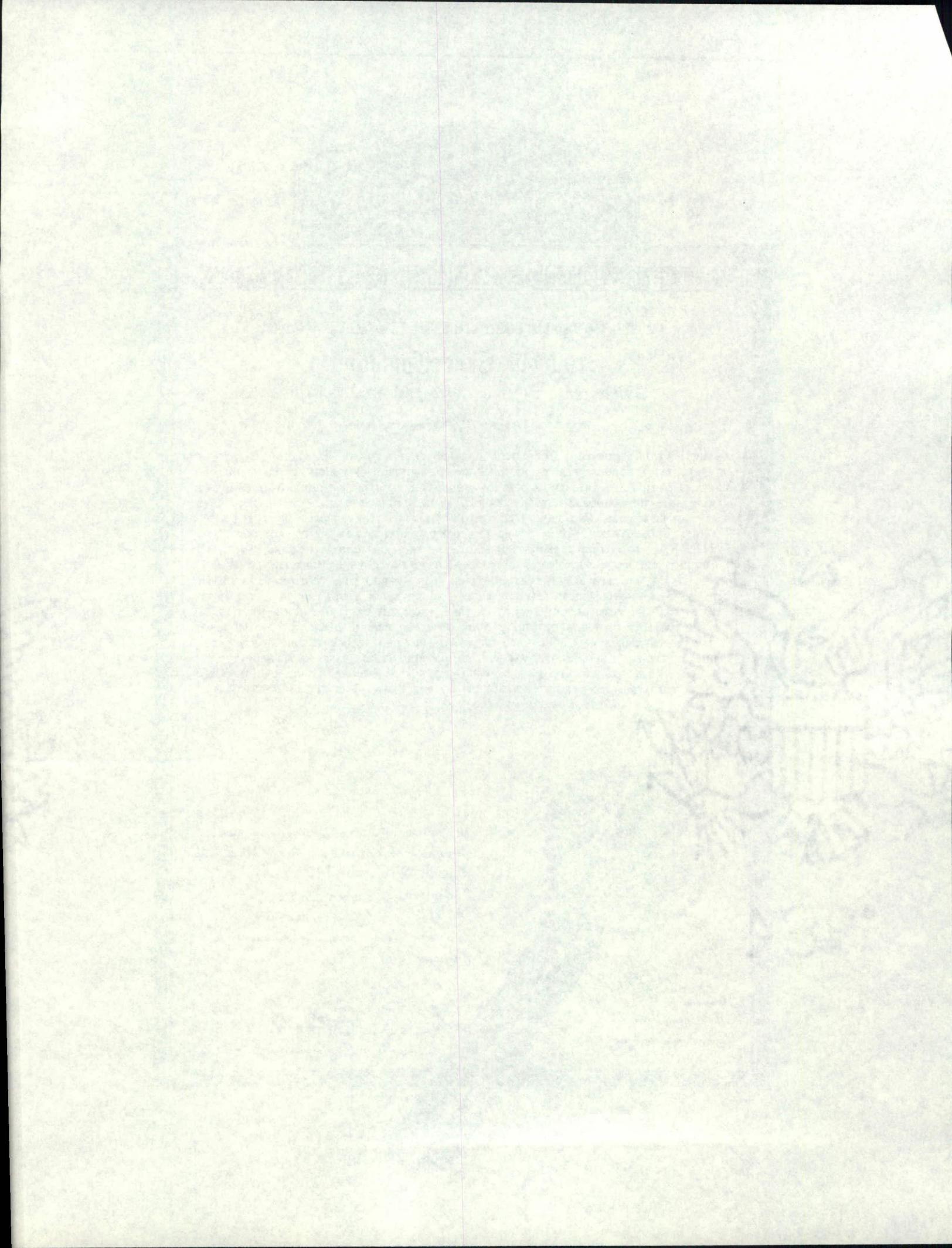


In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 28th day of June in the year of our Lord one thousand nine hundred and eighty-five.

Attest

Kenneth A. Egan
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

John R. Block
Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE
 AGRICULTURAL MARKETING SERVICE
 LIVESTOCK, MEAT, GRAIN & SEED DIVISION

FORM APPROVED: OMB NO. 0581-0055

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

1. NAME OF APPLICANT(S) Asgrow Seed Company		2. TEMPORARY DESIGNATION XP-C156		3. VARIETY NAME ENVY	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 9620-190-25 Kalamazoo, MI 49001		5. PHONE (Include area code) (616) 385-6605		FOR OFFICIAL USE ONLY VPVO NUMBER 8400094	
6. GENUS AND SPECIES NAME <u>Pisum sativum</u>		7. FAMILY NAME (Botanical) Leguminosae		FILING DATE 5/1/84 TIME 2:30 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.	
8. KIND NAME Garden Pea		9. DATE OF DETERMINATION July 1981		FEES RECEIVED AMOUNT FOR FILING \$ 1,800 DATE 5/1/84 AMOUNT FOR CERTIFICATE \$ 200.00 DATE 5/6/85	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation				11. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware				12. DATE OF INCORPORATION March 22, 1968	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS John A. Batcha (9620-190-25) Asgrow Seed Company, Gull Road, Bldg. 190 Kalamazoo, MI 49001					

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

- a. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- b. Exhibit B, Novelty Statement
- c. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- d. Exhibit D, Additional Description of the Variety

15. 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) of the Plant Variety Protection Act.) Yes (If "Yes," answer items 16 and 17 below) No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? Yes No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? Foundation Registered Certified

18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S.? Yes (If "Yes," give date) No

19. HAS THE VARIETY BEEN OFFERED FOR SALE OR MARKETED IN THE U.S. OR OTHER COUNTRIES? Yes (If "Yes," give names of countries and dates) No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request 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 Protection Act.

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

SIGNATURE OF APPLICANT <i>John A. Batcha</i>	DATE <i>April 16, 1984</i>
SIGNATURE OF APPLICANT	DATE

INSTRUCTIONS

#1800 #200

#1600

General: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$1,000 fee (~~\$100~~ filing fee and ~~\$900~~ examination fee) to U.S. Department of Agriculture, Agricultural Marketing Service, Livestock, Meat, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, 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

- 9 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.
- 14a Give: (1) the genealogy, including public and commercial 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 uniformity and stability.
- 14b 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 are clear differences; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 14c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 14d 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.
- 15 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, his decision published, or the certificate has been issued. However, if the applicant specified "No," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 16 See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

April 9, 1985

8400094

EXHIBIT A

Origin and Breeding History

The original cross was between two breeding lines (Bonus x Mars) and (Champ x Neptune) and was made in the field at Asgrow's Western Breeding Station (WBS) at Twin Falls, Idaho, in the spring of 1972. <XP-C156> was developed at WBS by pedigree (line) selection from that cross (details below). 'ENVY'

In 1981 an F₁₁ progeny was grown in the field, and inspections during the year indicated the line was uniform and breeding true. Subsequent increases of this line in 1982 and 1983 confirmed the line was uniform and breeding true.

April 10, 1972	Breeding lines (Bonus x Mars) and (Champ x Neptune) were planted in the field at WBS. During the spring these lines were crossed.
October 3, 1972	F ₁ seed planted in a greenhouse at WBS.
April 16, 1973	Planted F ₂ seed in the field at WBS. Made single plant selections.
April 19, 1974	Planted F ₃ line in the field at WBS. Made single plant selections.
April 28, 1975	Planted F ₄ line in the field at WBS. Made single plant selections.
April 14, 1976	Planted F ₅ line in the field at WBS under the number R76832.
April 20, 1977	Planted bulk from R76832 (F ₅ +1) at WBS under the number R772593.
April 13, 1978	Planted bulk from R772593 (F ₅ +2) at WBS under the number R781743. Made single plant single plant selections from this bulk.
April 11, 1979	Planted F ₈ line from R781743 at WBS under the number R79M169. Made single plant selections.
November 1979	Planted F ₉ line from R79M169 in the field at Los Mochis, Mexico, under the number R80Mx76.
April 16, 1980	Planted bulk from R80Mx76 (F ₉ +1) at WBS under the number R8089. Made single plant selections.
April 15, 1981	Planted F ₁₁ line from R8089 at WBS under the number R81916. Inspected line, determined it was uniform and breeding true.

Subsequent increases through 1983 were at WBS from bulks that trace to R81916. Yield trials in 1982 (R8263) and 1983 (R8353).

Observations indicated <XP-C156> 'ENVY' is uniform and stable within commercially acceptable limits. As is true with other pea varieties, a small percentage of variants or offtypes can occur within commercially acceptable limits, for almost any characteristics during the course of repeated multiplication.

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'ENVY' r/s 5/9/85

8400094

EXHIBIT B

Novelty Statement

'ENVY'

<XP-C1567> is a mid-season, medium sieve canner pea. It is unique in this market class because it frequently bears three or more flowers on a node and because it is moderately resistant to powdery mildew. Mildew pustules do occur on <XP-C1567> but they are smaller than pustules on fully susceptible varieties.

'ENVY'

#8221 EARLY PERFECTION r/s

'ENVY' To our knowledge the commercial varieties that most closely resemble <XP-C1567> are Pomak and #8221. Characteristics which distinguish these varieties include but are not necessarily restricted to the following:

'ENVY'

<XP-C1567> vs Pomak

'ENVY'

1. <XP-C1567> begins to flower on the 10th node, compared to the 14-16 nodes for Pomak.
2. <XP-C1567> requires less heat units to reach processing maturity than Pomak.

'ENVY'

Heat Units to 115 Tenderometer

<u>Variety</u>	<u>1982</u>	<u>1983</u>	<u>Average</u>
<XP-C1567> 'ENVY'	1520	1495	1507
Pomak	1640	1634	1637

'ENVY'

<XP-C1567> vs. #8221 Early Perfection

#8221 Early Perfection does not have more than two flowers per node, whereas <XP-C1567> frequently has three and occasionally has four flowers per node.

'ENVY'

10-10-54

April 1, 1954
SVP Application 4822
Adrian West Company

Exhibit B

Novelty Statement

4822 is a bid-secure, custom size banner set. It is unique in this respect because it is made of two pieces of material, one of which is a heavy, non-stretchable fabric, and the other is a light, stretchable fabric. The two pieces are joined together by a special stitching which allows the banner to be stretched across a wide area and then to contract back to its original size when the tension is removed. This feature is not known to the inventor and is believed to be a novel and useful improvement in the art of making banners.

4822 vs. Prior Art

1. 4822 differs from the prior art in that it is made of two pieces of material, one of which is a heavy, non-stretchable fabric, and the other is a light, stretchable fabric.
2. 4822 requires less heat units for each processing step than the prior art.

Heat Units in the Fabrication

Material	Heat Units	Material	Heat Units
4822	1000	4822	1000
4822	1000	4822	1000
4822	1000	4822	1000

4822 vs. 4822 Early Refinement

4822 Early Refinement does not require as many heat units as 4822. This is because 4822 is made of two pieces of material, one of which is a heavy, non-stretchable fabric, and the other is a light, stretchable fabric. The two pieces are joined together by a special stitching which allows the banner to be stretched across a wide area and then to contract back to its original size when the tension is removed.

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
NATIONAL AGRICULTURAL LIBRARY
BELTSVILLE, MARYLAND 20705
OBJECTIVE DESCRIPTION OF VARIETY
PEA (*PISUM SATIVUM*)

NAME OF APPLICANT(S) Asgrow Seed Company	VARIETY NAME OR TEMPORARY DESIGNATION 'ENVY' <XP-C1567
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) 9620-190-25, Gull Road, Kalamazoo, MI 49001	FOR OFFICIAL USE ONLY PVPO NUMBER 8400094

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

1. TYPE:

1 = GARDEN 2 = FIELD 3 = EDIBLE-PODDED

2. MATURITY:

Node number of first bloom: No. of days to processing Heat Units

No. of days Earlier than } 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

No. of days Later than } 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

3. PLANT HEIGHT:

CM. HIGH

Cm. Shorter than } 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

Cm. Taller than } 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

4. VINE:

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

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

Internodes: 1 = STRAIGHT 2 = ZIG ZAG NUMBER OF NODES

5. LEAFLETS:

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

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

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

6. STIPULES:

1 = LACKING 2 = PRESENT 1 = NOT CLASPING 2 = CLASPING

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

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

7. FLOWER COLOR:

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

8. PODS:

2 Shape: 1 = STRAIGHT 2 = SLIGHTLY CURVED 2 End: 1 = POINTED (Alderman) 2 = BLUNT (Alaska)
 2 Color: 1 = LIGHT GREEN (Alaska WR) 2 = MEDIUM GREEN 3 = DARK GREEN (Alderman)
 2 Surface: 1 = SMOOTH 2 = ROUGH 2 Surface: 1 = SHINY 2 = DULL
 7 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 2 MM. WIDTH (Between sutures) 0 8 NO. SEEDS PER POD

9. SEEDS (95--100 Tenderometer):

2 Color: 1 = LIGHT GREEN 2 = GREEN 3 = DARK GREEN 4 = OTHER (Specify) _____
 Seive: %

1	2	3	4	5	6	7	8	AVERAGE								
0	4	0	6	1	6	3	8	3	1	0	5			0	4	0

SEEDS (Dry, Mature):

1 Shape: 1 = FLATTENED 2 = ANGULAR 3 = OVAL 4 = ROUNDED
 3 Surface: 1 = SMOOTH 2 = DIMPLED 2 Surface: 1 = SHINY 2 = DULL
 3 = WRINKLED
 1 Color Pattern: 1 = MONOCOLOR 2 = MOTTLED 3 = STRIPED 4 = DOTTED
 2 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 1 Cotyledon Color: 1 = GREEN 2 = YELLOW 3 = ORANGE
 3 = BLACK

2 1 GRAMS PER 100 SEEDS

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

2 FUSARIUM WILT 1 NEAR-WILT 0 DOWNY MILDEW
 0 ASCOCHYTA BLIGHT 2* POWDERY MILDEW 0 BACTERIAL BLIGHT
 0 MOSAIC 0 PEA ENATION MOSAIC 0 YELLOW BEAN MOSAIC
 OTHER (Specify) *Moderately resistant - See Exhibit B

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	EP #8221	Fresh Seed Color	Pomak
Leaf Color	EP #8221	Mature Seed Color	Pomak
Pod Color	Pomak	Seed Shape	Pomak
Pod Shape	EP #8221	Plant Habit	Pomak

COMMENTS:

SECURITY AGREEMENT

By

SEMINIS VEGETABLE SEEDS, INC.,

SEMINIS, INC.

and

THE DOMESTIC SUBSIDIARIES PARTY HERETO,
as Grantors,

and

CITICORP NORTH AMERICA, INC.,
as Collateral Agent

Dated as of September 29, 2003

Original document filed in front office.
(52 pages)

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