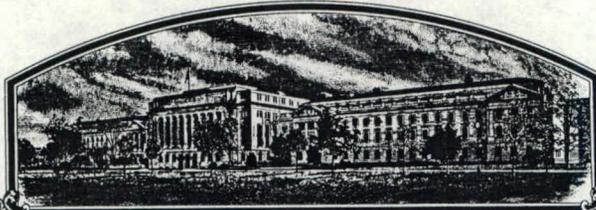


No.

8400134



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

van Waveren-Pflanzenzucht GmbH

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, 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 (P.L. 77-1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'Amity'

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 31st day of December in the year of our Lord one thousand nine hundred and eighty-six.

Attest.

*Kenneth H. Evans*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*Richard E. Lyng*  
Secretary of Agriculture



1985

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) van Waveren-Pflanzenzucht GmbH		2. TEMPORARY DESIGNATION WAV 518		3. VARIETY NAME AMITY		
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) Postfach 39 42 D-3400 Göttingen/West-Germany		5. PHONE (Include area code) 0551-781084		FOR OFFICIAL USE ONLY PVPO NUMBER <b>8400134</b>		
6. GENUS AND SPECIES NAME Phaseolus vulgaris L.		7. FAMILY NAME (Botanical) Fabaceae		FILING DATE 7/18/84 TIME 8:30 <input checked="" type="checkbox"/> A.M. <input type="checkbox"/> P.M.	AMOUNT FOR FILING \$ 1,800 DATE 7/18/84	
8. KIND NAME Bush beans		9. DATE OF DETERMINATION 1983			AMOUNT FOR CERTIFICATE \$ 200.00 DATE November 24, 1986	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.)  private limited liability company				11. IF INCORPORATED, GIVE STATE OF INCORPORATION		
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Dr. Martin Schnock c/o van Waveren-Pflanzenzucht GmbH, Postfach 39 42, D-3400 Göttingen/West Germany						

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

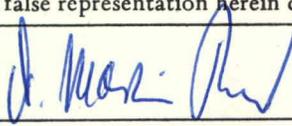
18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?  Yes (If "Yes," give date)  No

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 	DATE 23 May 1984
SIGNATURE OF APPLICANT (Radwitz) (Dr. Martin Schnock)	DATE 23 May 1984

## INSTRUCTIONS

\$ 1,800 \$ 200 \$ 1,600

**General:** Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$1,000 fee (\$500 filing fee and \$500 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.

added 4/17/86, AB

Attachment 14 A

AMITY (WAV 518)

Exhibit A: Origin and Breeding History of bush bean variety WAV 518

Genealogy: Crossbreeding and subsequent selections (Pedigree methode)

1973: CASCADE x EARLYBIRD

1974-1978: F<sub>1</sub>-F<sub>7</sub> (sisterline of WAV 876)

Selection were made for virus (N.Y.: strain)

Pod colour, flavour with BBL characters, bush type  
and general appearance.

1979-1982: F<sub>8</sub>-F<sub>12</sub> besides further selections, yield and performance  
trials were made.

1983, 5th Jan.: Application for variety protection in Bundesrepublik  
Deutschland under the registration number BB 673.

1985, 19th Dec.: Plant breeders rights of West-Germany.

*Less than 0.3% plants with round oval pods occur. Schnock  
10/16/86*

*"I have personally observed crop production fields and variety  
trials of 'Amity' and testify that it has proven to be  
stable and uniform." Antonius 10/3/86*

RECEIVED  
10/16/86  
2

RECEIVED

APR 17 1986

U. S. DEPARTMENT



OF AGRICULTURE

AMS

PVPO

Added 9/17/86, AB

Attachment 14B

Exhibit B, Novelty Statement

AMITY (WAV 518)

The most similar varieties are EVERGREEN (WAV 876) and BRILLIANT (= EARLYBIRD).

AMITY differs from both by the difference in electrophoresis examinations (see attached photos) and the certificate of Landwirtschaftliche Untersuchungsanstalt Hameln/BRD.

Furthermore we have got the breeders rights of AMITY (see attached documents) as well as of BRILLIANT (EARLYBIRD).

Other differences to EVERGREEN and BRILLIANT (EARLYBIRD) see below:

	Plant		Pod			Coll.res.	maturity
	height	spread	length cm	diameter cm	colour (RHS)	(alpha-lambda)	
EVERGREEN	48	38	13-14	0,95	137 A	S	67
AMITY	47	40	14-15	1,01	137 C	S	66
BRILLIANT (=EARLYBIRD)	45	40	15-17	1,11	143 A	R	65

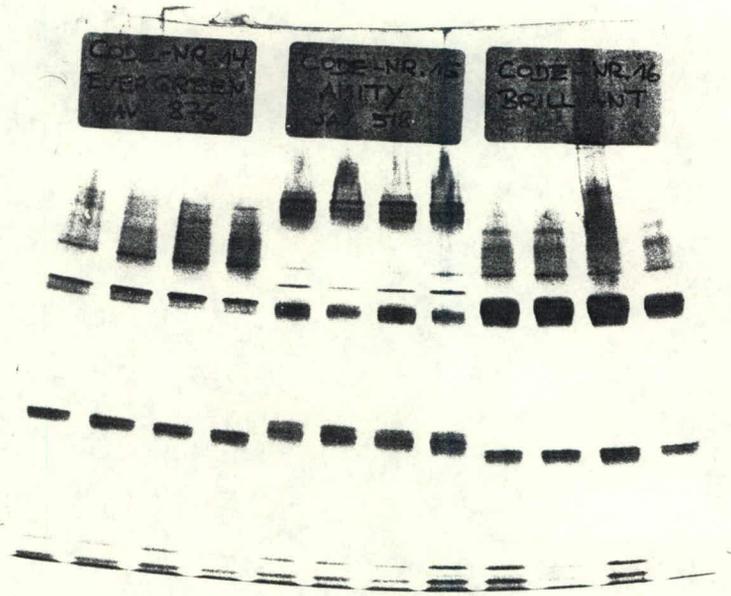
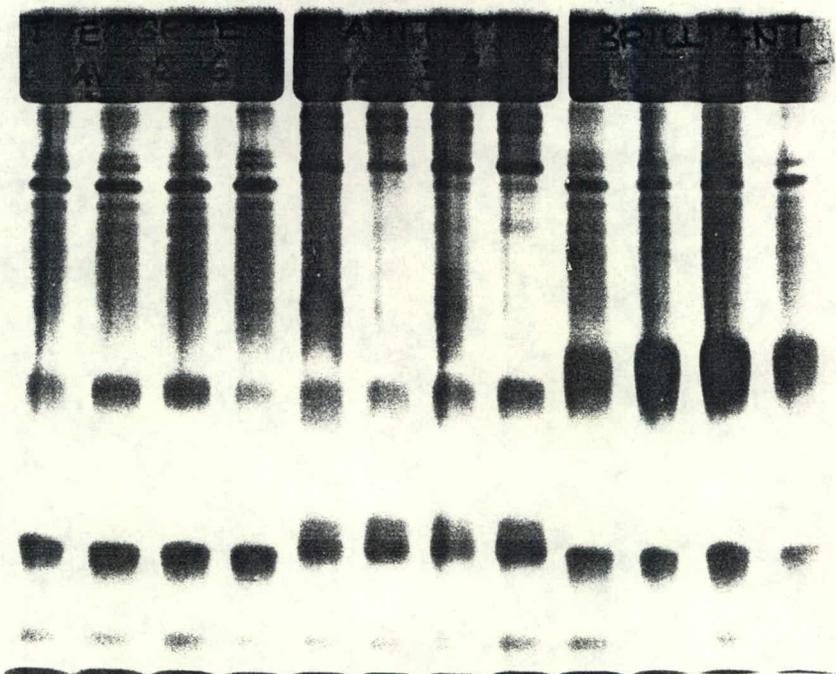
100-100000-100000

RECEIVED

APR 17 1986



AMS  
PVPO



CODE NR. 14  
EVERGREEN  
JA 325

CODE NR. 15  
ABILITY  
JA 516

CODE NR. 16  
BRILLIANT

9.1. 86

2.2 IV.

Added 4/17/86, AB

4

Actual Photos in Evergreen File



Attachment 14 b

WAV 518

=====

WAV 518 is distinguished from EARLYBIRD by its more upright and sturdy bush with darker green leaves and pod colour. Difference from the sisterline WAV 876 is caused by more podlength, slightly paler, excellent flavour and texture. Resistances against diseases as WAV 876.

Yield and performance trial 1983

	yield to/ha	bean/ plant ratio	plant- height cm	P O D length cm	diameter cm	colour 1-9	Textur 1-9	Flavour
WAV 876	13.82	38.6	48	13.9	0.95	6.8	7.4	4.8
BLISS	13.50	51.1	50	15.2	0.99	4.5	7.4	
WAV 518	17.32	46.2	47	14.2	1.01	5.6	7.8	5.7
PROVIDER	13.65	52.2	46	13.8	0.98	3.8	6.2	
WAV 269	14.74	47.8	52	15.8	1.06	4.2	5.0	6.3
BRILLIANT	15.15	41.9	50	14.9	1.11	4.0	6.7	4.7
						9=dark 1=pale	9=best	9=best

1610072

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION  
BELTSVILLE, MARYLAND 20705

EXHIBIT C  
(Bean)

OBJECTIVE DESCRIPTION OF VARIETY  
BEAN (*Phaseolus vulgaris* L.)

NAME OF APPLICANT(S) van Waveren-Pflanzenzucht GmbH	FOR OFFICIAL USE ONLY
	PVPO NUMBER 8400134
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) Postfach 39 42 3400 Göttingen /West Germany	VARIETY NAME OR TEMPORARY DESIGNATION AMITY (WAV 518)

Place numbers in the boxes (e.g. 0 8 9) for the characters that best describe this variety. Measured data should be for SPACED PLANTS. Ranges may also be given. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: Royal Horticultural Society Colour Chart. The location of test area is Rosdorf/BRD Newman/California. Please answer questions appropriate for your variety if the information is available.

1. TYPE:

1 = Field (dry-edible)       2 = Garden

2. MARKET MATURITY:

6  6 Days to edible pods       7  5 Days to green shells

9  0 Days to dry seeds

1  1  3  7 Heat units to edible pods

1  3  0  8 Heat units to green shells

1  5  8  7 Heat units to dry seeds

0  5 No. days earlier than .....  7  
..... Same as ...

- 1 = Tendercrop
- 2 = Kentucky Wonder
- 3 = Kinghorn Wax
- 4 = White Kidney
- 5 = Michelite 62
- 6 = Dwarf Horticultural
- 7 = Bush Blue Lake 290
- 8 = Other (specify below)

0  0 No. days later than .....  1

3. PLANT:

1 = Determinate       2 = Indeterminate

4  7 cm height

7 cm shorter than .....  1

Same as ...  comparison variety from above

cm taller than .....

4  0 cm spread

3 Number primary branches near base

cm narrower than .....  1

comparison variety from above  
 Branching habit:  
1 = compact    2 = open

width same as ...

cm wider than .....

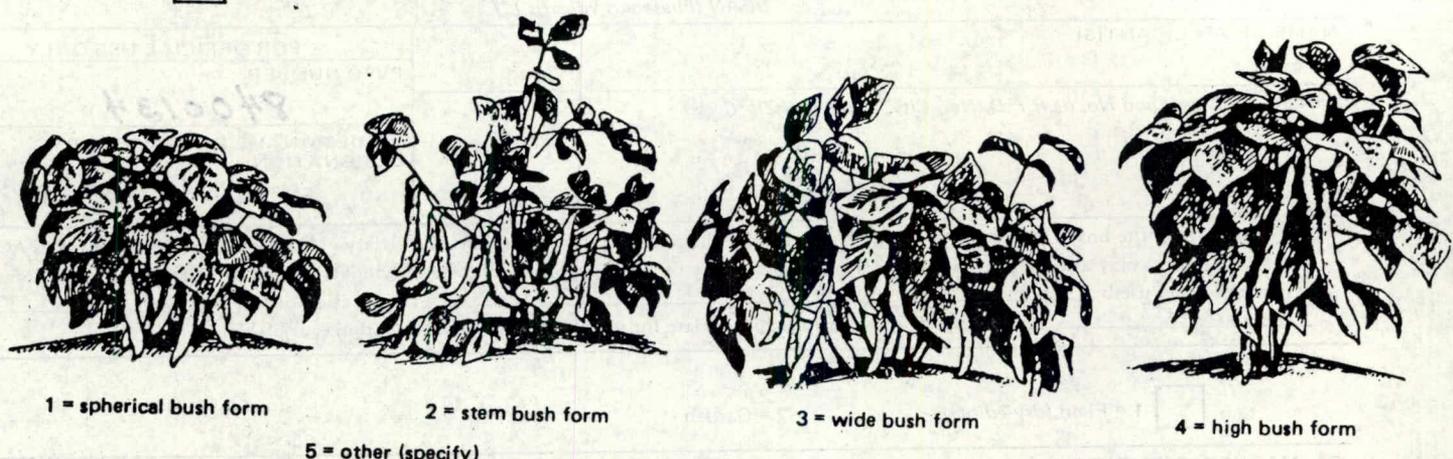
2 Main stalk: 1 = brittle    2 = wirey

1 = stout    2 = thin

3. PLANT: (Cont'd)

3 Pod position: 1 = low 2 = high 3 = scattered

4 Bush form (illustrated below):



4. LEAVES:

1 1 = smooth 2 = wrinkled

1 1 = dull 2 = glossy

2 Size: 1 = small (Earliwax) 2 = medium 3 = large (Tendercrop)

2 Color: 1 = light green (as light or lighter than Bountiful) 2 = medium green  
3 = dark green (as dark or darker than Bush Blue Lake 290)

5. FLOWERS:

1 Color: 1 = white 2 = cream 3 = pink 4 = lilac 5 = purple 6 = Other (specify) \_\_\_\_\_

4  7 Days to 50% bloom (USA)

6. FRESH PODS: (Edible maturity, average for 20 pods)

2 Exterior color: 1 = light green (as light or lighter than Bountiful)  
2 = medium green  
3 = dark green (as dark or darker than Bush Blue Lake 290)  
4 = light yellow (Brittlewax)  
5 = golden yellow (Cherokee Wax)  
6 = green-red variegated (Horticultural)  
7 = other (specify) \_\_\_\_\_

% Sieve size distribution at optimum maturity for non-flat pods

Note:  
1 = 4.76 mm to 5.76 mm      4 = 8.34 mm to 9.53 mm  
2 = 5.76 mm to 7.34 mm      5 = 9.53 mm to 10.72 mm  
3 = 7.34 mm to 8.34 mm      6 = 10.72 mm or larger

	1	2	3	4	5	6
	2,4	8,6	12,2	16,9	54,3	5,6

3 sieve  1  3 cm length        8 mm width        8 mm thickness

4 sieve  1  4 cm length        9 mm width        9 mm thickness

5 sieve  1  5 cm length       1  0 mm width       1  0 mm thickness

6 sieve  1  6 cm length       1  1 mm width       1  1 mm thickness

RECEIVED

APR 17 1986



AMS

PVPO

6. FRESH PODS: (Cont'd)

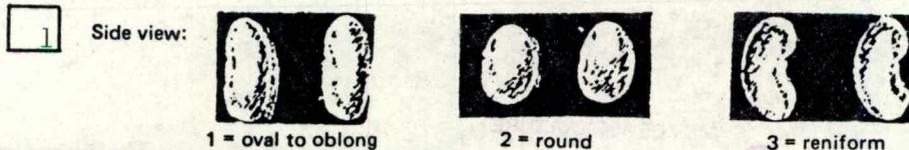
- 3 Cross section pod shape: 1 = flat 2 = oval 3 = round 4 = heart
- 2 Creaseback: 1 = present 2 = absent
- 2 Pubescence: 1 = none 2 = sparse 3 = considerable
- 2 Spur: 1 = straight 2 = slightly curved 3 = curved
- 1 Constrictions: 1 = none 2 = slight 3 = deep
- 2 Pod flesh: 1 = light 2 = medium 3 = dark
- 1  4 mm spur length
- 1 Fiber: 1 = none 2 = sparse 3 = considerable
- 6 Number of seeds per pod
- 1 Surface: 1 = smooth 2 = rough
- 2 Suture string: 1 = present 2 = absent
- 1 Seed development (Snap Bean): 1 = slow 2 = medium 3 = fast
- 1 Machine harvest: 1 = adapted 2 = not adapted
- 2 Pod flavor: (1) Standard (Tendercrop)  
(2) Mild Blue Lake (BBL 274)  
(3) Strong Blue Lake (Pole FM1)  
(4) Mild Romano (Roma)  
(5) Strong Romano (Pole Romano)  
(6) Other (specify) \_\_\_\_\_

7. SEED COAT COLOR:

- 1 1 = Monochrome 2 = Polychrome  1 1 = shiny 2 = dull
- 1 Primary color: } 1 = white 2 = yellow 3 = buff 4 = tan
- Secondary color: } 5 = brown 6 = pink 7 = red 8 = purple  
9 = blue 10 = black 11 = other (specify) \_\_\_\_\_
- 1 Color Pattern: 1 = none 2 = splashed 3 = mottled 4 = striped 5 = flecked 6 = dotted
- Secondary color location: 1 = hilar ring 2 = ventral surface  
3 = sides 4 = dorsal surface  
5 = not restricted to any area 6 = combination of location (specify below) \_\_\_\_\_
- Hilar ring on colored seeds: 1 = absent 2 = narrow 3 = butterfly shaped

8. SEED SHAPE AND SIZE:

- 2 Hilum view: 1 = elliptical 2 = oval 3 = round  2 Cross section: 1 = elliptical 2 = oval 3 = cordate 4 = round



8. SEED SHAPE AND SIZE: (Cont'd)

2 1 = truncate ends 2 = rounded ends

2  3 gm/100 seed

gm/100 seed lighter than .....  7

gm/100 seed same as ....

comparison variety from page one

gm/100 seed heavier than .....

9. ANTHOCYANIN: (1 = absent 2 = present)

Flowers

Stems

Pods

Seeds

Leaves

10. DISEASE RESISTANCE (0 = not tested 1 = susceptible 2 = resistant):

Anthracnose (specify race below)  
*a, B, f, k, λ see letter from Schnock 10/16/86*

Rust (specify race below)

Powdery mildew

Fusarium root rot

Pythium root rot

Rhizoctonia root rot

Pythium wilt

Angular leaf spot

Bacterial wilt

Halo blight (specify race below)

Fuscos blight

Red node virus

Pod mottle virus

Bean common mosaic virus (specify strain below)  
N.Y. strain 15

Mosaic mottle

Black root

Bean yellow mosaic virus

Curly top

Other (specify below)

11. INSECT RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)

Aphids

Leaf hopper

Lygus

Pod borer

Root knot nematode

Seed corn maggot

Thrips

Weavils

Other (specify below)

12. PHYSIOLOGICAL RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)

Heat

Cold

Drought

Air pollution

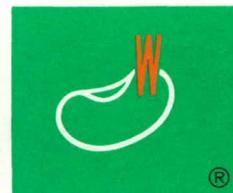
13. COMMENTS:



Added 4/17/86, AB

8400134

**VAN WAVEREN-PFLANZENZUCHT  
GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG**



BUNDESREPUBLIK  
DEUTSCHLAND  
TELEFON: (0551) 781084  
TELEX: <78902-0>  
96843 WAVERN D

VAN WAVEREN-PFLANZENZUCHT GMBH · POSTFACH 3942 · 3400 GÖTTINGEN

Ab 17.4.1986  
neue  
Rufnummer:  
78 90 2-0

Auftrags-Annahme:  
78 90 2-38 u. 39  
(in direkter Durchwahl)

D-3405 ROSDORF 1

IHR ZEICHEN

IHRE NACHRICHT VOM

UNSER ZEICHEN

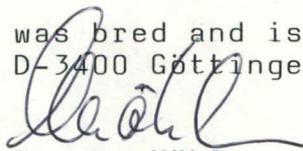
TAG  
11th April 1986

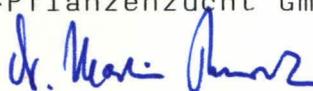
Exhibit E: Declaration - Section 52 (4) PVP

We herewith declare that the bush bean variety

AMITY - Appl. no. 8400134

was bred and is owned by van Waveren-Pflanzenzucht GmbH,  
D-3400 Göttingen.

  
Dr. L. Möhlmann



Dr. M. G. Schnock

MITGLIED DER KWS-GRUPPE

GESCHÄFTSFÜHRER: DR. LUDWIG MÖHLMANN · JÜRGEN SCHNEEMANN

BANKEN: DEUTSCHE BANK AG, GÖTTINGEN (BLZ 260 700 72) · DRESDNER BANK AG, GÖTTINGEN (BLZ 260 800 24)

COMMERZBANK AG, GÖTTINGEN (BLZ 260 400 30) · BHF-BANK, HANNOVER (BLZ 250 202 00)

SITZ DER GESELLSCHAFT UND REGISTERGERICHT GÖTTINGEN HRB 462

**KWS**



10

Handwritten text at the top of the page, possibly a date or reference number.

Faint, illegible text in the upper middle section of the document.

Handwritten signature or name in the lower middle section.

**RECEIVED**

**APR 17 1986**



**AMS PVPO**