

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

van Waveren-Pflanzenzucht G.m.b. H.

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.)

BEAN

'Earlybird'



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 12th day of April in the year of our Lord one thousand nine hundred and seventy-nine

Attest:

*[Signature]*  
 Commissioner  
 Plant Variety Protection Office  
 Grain Division  
 Agricultural Marketing Service

*[Signature]*  
 Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE  
 AGRICULTURAL MARKETING SERVICE  
 LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED  
 OMB NO. 40-R3822

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

FOR OFFICIAL USE ONLY

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY  
 #WAV-385 NZ 385

1b. VARIETY NAME  
 EARLY BIRD 770322 JET

PV NUMBER 7800078

FILING DATE 6-2-78

TIME 2:30 P.M.

FEE RECEIVED \$ 500.00 \$ 250.00

DATE 6-2-78 3-5-79

2. KIND NAME  
 Bean

3. GENUS AND SPECIES NAME  
 Phaseolus Vulgaris

5. DATE OF DETERMINATION  
 1976

8. TELEPHONE AREA CODE AND NUMBER

4. FAMILY NAME (BOTANICAL)  
 Fabaceae

7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)  
 Postfach 75  
 3400 Göttingen/Germany

11. DATE OF INCORPORATION

6. NAME OF APPLICANT(S)  
 van Waveren-Pflanzenzucht G.m.b.H.

10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.)

12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:  
 Dr. V.J. Fisher, L.D. Maffei Seed Co., P.O. Box 908, Newman, Calif. 95360

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- 13B. Exhibit B, Novelty Statement.
- 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- 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  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

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES?  YES  NO (If "Yes," give name of countries and dates.)

Great Britain 1977 (WAV 77)

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES?  YES  NO (If "Yes," give name of countries and dates.)

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL?  YES  NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and 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 variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of 42 of the Plant Variety Act.

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

20th April, 1978 (DATE)

20th April, 1978 (DATE)

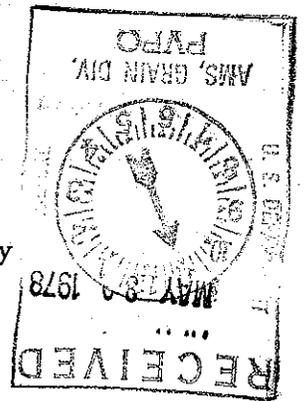
(SIGNATURE OF APPLICANT) 1

## INSTRUCTIONS

**GENERAL:** Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, 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

- 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 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.
- 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, 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.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.



## Attachment 13 A

=====

Exhibit A: Origin and breeding history of bush bean variety <sup>Early bird 184</sup> ~~WAV 385~~\* 790322

Genealogy: cross-breeding and subsequent selections and back crosses.

Original material: Own virus-resistant breeding lines crossed with colletotrichum-resistant wild material provided by institutes.

We received this wild material with monogenic resistance to all races of colletotrichum lindemuthianum including "alpha mutante" from Mr. Ing. Hubbeling, Institute of Phytopathology in Wageningen/Netherlands.

After crossing with our virus-resistant breeding material, 5 back-crosses and subsequent selections were needed to reach the high quality standard of WAV 385\*. More than 1000 single plant selections of this segregating material were tested every year in field tests with repetitions.

The back-crosses and selections of first generations were done in greenhouses and we cultivated three generations in a year by help of artificial illumination. Selection for resistance to colletotrichum lindemuthianum and common bean mosaik was done in collaboration with German and Dutch institutes.

In 1973, having screened the line 385 out of a bulk of resistant breeding lines for high yield, earliness and quality standard we decided to apply for breeders' rights in the Federal Republic of Germany.

\*WAV 385 is a synonym of NZ 385

(V84)

Bean Application No. 7800078, 'NZ385' Exhibit B, Revised  
November 15, 1978: Novelty Statement

'NZ385' most closely resembles GV50. It differs in having narrower primary leaf blades, a longer hilum, smaller plant size, narrower ratio of plant height to plant width, earlier maturity, and resistance to more races of anthracnose (colletotrichum lindemuthianum).

The difference in the shape of the primary leaf blades is shown by the drawings in Figure 1 and by the following data, which are based on 10 measurements for each variety within each of the four replications of a variety trial at Newman, California. Length of leaf blade was measured from the point of attachment of the petiole to the tip of the leaf blade.

Variety	Mean ratio of primary leaf blade length / width	Std. error
'NZ385'	1.34	0.01
Early Gallatin	1.09	0.01
GV50	1.10	0.01

Greater hilum length for 'NZ385' than for GV50 is shown by the following data, which are based on 20 measurements for each variety from each of 5 lots of dry beans:

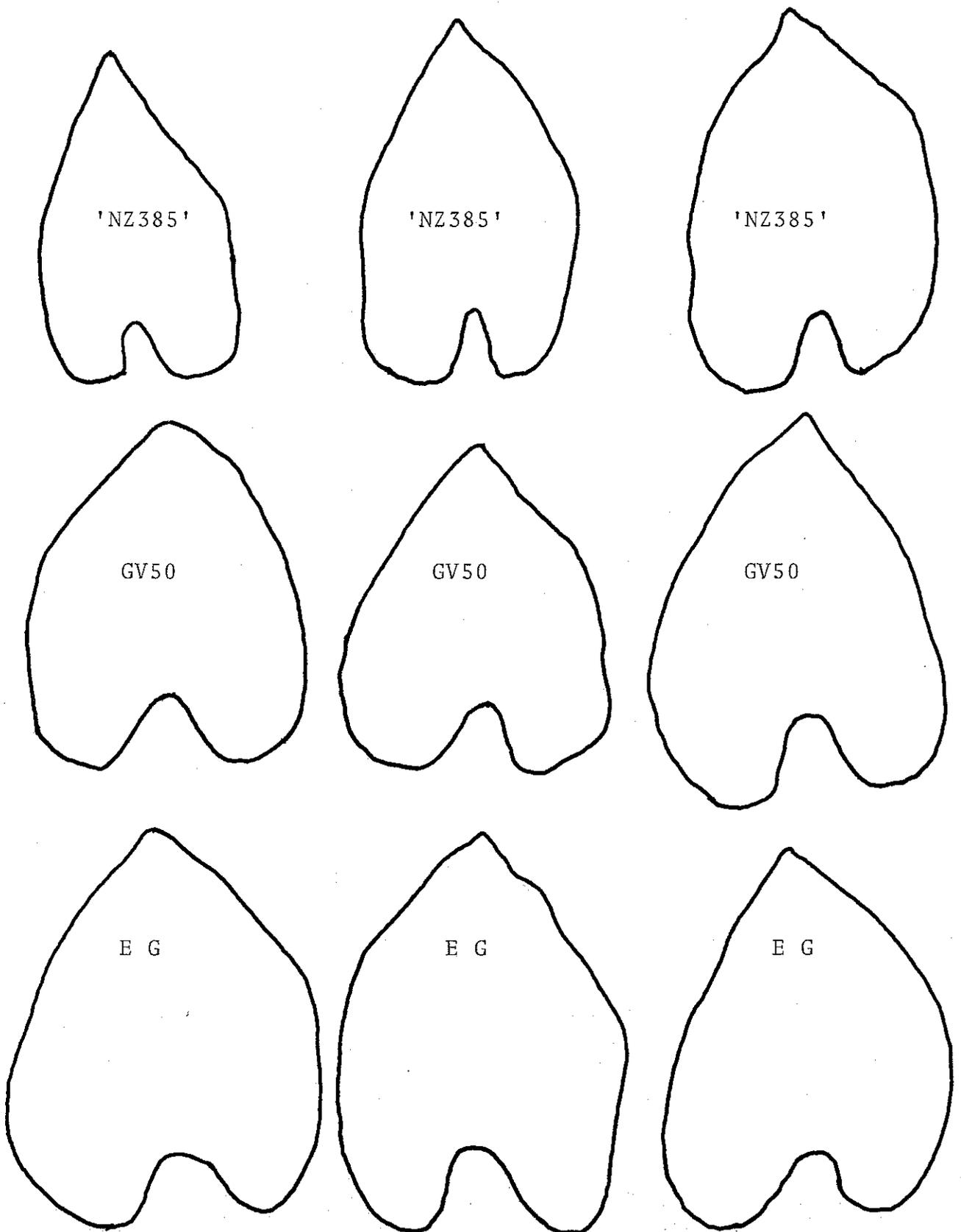
Variety	mean hilum length (mm)	Std. error
'NZ385'	2.24	0.03
GV50	2.14	0.03

Shorter plant height, narrower plant width, and narrower ratio of plant height to plant width for 'NZ385' compared to GV50 are shown by the attached photographs and the following data, which are based on four measurements of each variety in a variety trial at Newman, California in 1978.

Variety	Plant Ht CM	S.E.*	Plant Width CM	S.E.*	Ratio Ht./width	S.E.*
'NZ385'	45.2	1.6	64.3	1.2	.71	.04
GV50	61.7	1.6	71.9	1.6	.86	.03

\*Standard error of the mean.

Fig. 1. Typical Primary Leaf Blade Outlines of  
'NZ385', GV50, and Early Gallatin



W. R. C. 1954





6. FLOWERS:

1 Color: 1 = WHITE 2 = CREAM 3 = PINK 4 = LILAC 5 = PURPLE  
6 = OTHER (Specify) \_\_\_\_\_

3 Racemes: 1 = LONG 2 = MEDIUM 3 = SHORT  7 NUMBER FLOWERS PER RACEME

7. FRESH PODS: (Edible maturity, averages for 10 pods)

2 Color: 1 = LIGHT GREEN (Bountiful) 2 = MEDIUM GREEN (Tendergreen) 3 = DARK GREEN (Wade)  
4 = LIGHT YELLOW (Brittlewax) 5 = GOLDEN YELLOW (Cherokee Wax) 6 = GREEN-RED VARIAGATED (Horticultural)  
7 = OTHER (Specify) \_\_\_\_\_

1  5 CM. LENGTH  0  9 MM. WIDTH (Between sutures)  1  0 MM. THICKNESS  0  9  $\frac{\text{WIDTH}}{\text{THICKNESS}} \times 10$

4 Cross section pod shape: 1 = FLAT 2 = OVAL 3 = CREASEBACK 4 = ROUND

2 Curvature: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED  2 Pubescence: 1 = NONE 2 = SPARSE 3 = CONSIDERABLE

2 Constrictions: 1 = NONE 2 = SLIGHT 3 = DEEP  2 Spur: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED

2 Surface: 1 = SHINY 2 = DULL  1 Surface: 1 = SMOOTH 2 = BLISTERED

1 Pod flesh: 1 = LIGHT 2 = DARK  1 Pod flesh: 1 = FIRM 2 = WATERY

2  0 MM. SPUR LENGTH  2 Suture string: 1 = PRESENT 2 = ABSENT

2 Fiber: 1 = NONE 2 = SPARSE 3 = CONSIDERABLE  1 Seed development: 1 = SLOW 2 = MEDIUM 3 = FAST

6 NUMBER OF SEEDS PER POD  3  0 NUMBER PODS PER PLANT (Once over harvest)

2  5 NUMBER MARKETABLE PODS PER PLANT (Once over harvest)  1 Machine harvest: 1 = ADAPTED 2 = NOT ADAPTED

8. SEED COAT COLOR:

1 1 = MONOCHROME 2 = POLYCHROME  2 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) \_\_\_\_\_

Color pattern: 1 = SPLASHED 2 = MOTTLED 3 = STRIPED 4 = FLECKED 5 = DOTTED

Secondary color location: 1 = HILAR RING 2 = HILAR SURFACE  
3 = STROPHIOLE 4 = MICROPYLE  
5 = SIDES 6 = DORSAL SURFACE  
7 = NOT RESTRICTED TO ANY AREA 8 = COMBINATION OF LOCATIONS (Specify) \_\_\_\_\_

2 Hilar ring: 1 = NOT PRESENT 2 = NARROW 3 = BUTTERFLY SHAPED

2 Vein-like under coat pattern: 1 = ABSENT 2 = PRESENT

9. SEED SHAPE AND SIZE:

1 Hilum view: 1 = ELLIPTICAL 2 = OVAL 3 = ROUND  3 Side view: 1 = OVAL 2 = ROUND  
3 = KIDNEY 4 = TRUNCATE ENDS

2 Cross section: 1 = ELLIPTICAL 2 = OVAL 3 = CORDATE 4 = ROUND  2  5 GM. WEIGHT PER 100 SEEDS

4 Classification: 1 = PEA 2 = MEDIUM 3 = MARROW 4 = KIDNEY 5 = PINTO

0  7 MM. WIDTH (Dorsal to ventral)  0  5 MM. THICKNESS (Side to side)

1  1 MM. LENGTH  0  1  4  $\frac{\text{WIDTH}}{\text{THICKNESS}} \times 10$

2

6

10. ANTHOCYANIN: (1 = Absent 2 = Present):

1 FLOWERS       1 STEMS       1 PODS       1 SEEDS       1 LEAVES

11. DISEASE RESISTANCE (0 = Not tested; 1 = Susceptible; 2 = Resistant):

<input type="checkbox"/> 0 RUST ( <i>Specify race</i> ) _____	<input type="checkbox"/> 0 ANGULAR LEAF SPOT
<input type="checkbox"/> 0 BACTERIAL WILT	<input type="checkbox"/> 2 COMMON BEAN MOSAIC
<input type="checkbox"/> 2 ANTHRACNOSE	<input type="checkbox"/> 0 YELLOW BEAN MOSAIC
<input type="checkbox"/> 0 SOUTHERN BEAN MOSAIC	<input type="checkbox"/> 0 FUSARIUM ROOT ROT
<input type="checkbox"/> 0 CURLY TOP	<input type="checkbox"/> 0 N.Y. 15 BEAN MOSAIC
<input type="checkbox"/> 0 POWDERY MILDEW	<input type="checkbox"/> 0 BEAN MOSAIC VIRUS 4
<input type="checkbox"/> 0 HALO BLIGHT	<input type="checkbox"/> 0 FUSCOUS BLIGHT
<input type="checkbox"/> 0 ALFALFA MOSAIC VIRUS	<input type="checkbox"/> 0 ALFALFA MOSAIC VIRUS 2
<input type="checkbox"/> 0 POD MOTTLE VIRUS	<input type="checkbox"/> 0 RED NODE VIRUS
<input type="checkbox"/> 0 ROOT KNOT NEMATODE	<input type="checkbox"/> 0 OTHER ( <i>Specify</i> ) _____

12. INSECT RESISTANCE: (0 = Not tested; 1 = Susceptible; 2 = Resistant)

<input type="checkbox"/> 0 APHIDS	<input type="checkbox"/> 0 LEAF HOPPERS
<input type="checkbox"/> 0 POD BORER	<input type="checkbox"/> 0 LYGUS
<input type="checkbox"/> 0 THRIPS	<input type="checkbox"/> 0 WEAVILS
<input type="checkbox"/> 0 SEED CORN MAGGOT	<input type="checkbox"/> 0 OTHER ( <i>Specify</i> ) _____

13. PHYSIOLOGICAL RESISTANCE: (0 = Not tested; 1 = Susceptible; 2 = Resistant)

0 HEAT       0 COLD       0 DROUGHT       0 OTHER (*Specify*) \_\_\_\_\_

REFERENCES: The following publications may be used as a reference in completing this form:

1. Beans of New York. Vol. 1 Part II of Vegetables of New York. U.P. Hedrick et al. J. B. Lyon Company, Albany, N.Y. 1931.
2. Yarnell, S. H., Cytogenetics of the Vegetable Crops IV. Legumes. Bot. Rev. 31:247 - 330. 1965.
3. USDA Yearbook of Agriculture. 1937.

COLOR: Nickerson's or any recognized color fan may be used to determine the colors.

Exhibit D

Official statement of the Bundessortenamt - Federal Republic of Germany - comment to novelty of dwarf bean variety EMDU = MD 385 (~~WAV-385~~)\* (NZ 385), Register-Nr. BB 435.

Variety protection has been applied for in the Federal Republic of Germany on the 28th September, 1973 and withdrawn on the 20th December, 1976 because the German industry prefers light-green coloured bean types.

This variety has never been registered in any variety list and was not in commercial trade, yet.

 \*WAV 385 is a synonym of NZ 385



United States  
Department of  
Agriculture

Agricultural  
Research  
Service

Northern Plains Area  
National Seed  
Storage Laboratory

1111 South Mason Street  
Fort Collins, CO 80521-4500  
Telephone: 970 495-3200  
Fax: 970 221-1427

February 14, 1997

Marian R. Minnifield, Secretary  
Plant Variety Protection Office  
NAL Building, Room 500  
10301 Baltimore Boulevard  
Beltsville, Maryland 20705-2351

Subject: Expired PVPO's; disposition of

1. The following expired PVPO's have been transferred to the NPGS. Our records have been changed accordingly.

Serial Number		PVP Number
101862	01	PVP 7800029
102219	01	PVP 7800010
102675	01	PVP 7800088
102676	01	PVP 7400011
103506	01	PVP 7800084
103507	01	PVP 7900016
103508	01	PVP 7800082
103840	01	PVP 7900017
103842	01	PVP 7900067
104549	01	PVP 7700106
104551	01	PVP 7100046
314988	01	PVP 9500276
101863	01	PVP 7800026
102222	01	PVP 7800078 ✓
102226	01	PVP 7800091
101854	01	PVP 7200134
102214	01	PVP 7605014
102216	01	PVP 7900011
102217	01	PVP 7800095
102218	01	PVP 7800093
102220	01	PVP 7800097
102221	01	PVP 7800042

97 FEB 25 10 56 AM '97  
USDA



United States  
Department of  
Agriculture

Agricultural  
Research  
Service

Northern Plains Area  
National Seed  
Storage Laboratory

1111 South Mason Street  
Fort Collins, CO 80521-4500  
Telephone: 970 495-3200  
Fax: 970 221-1427

102673	01	PVP 7800059
103502	01	PVP 7800096
103503	01	PVP 7800074
103509	01	PVP 7900044
103510	01	PVP 7900047
103838	01	PVP 7500042
103843	01	PVP 7300101
101859	01	PVP 7200132
102227	01	PVP 7700085
103511	02	PVP 7800028
103839	01	PVP 7900049
103845	01	PVP 7900048
104548	02	PVP 7800057
104550	01	PVP 7800024

97 FEB 25 10 56 AM '97  
USDA

Sincerely,