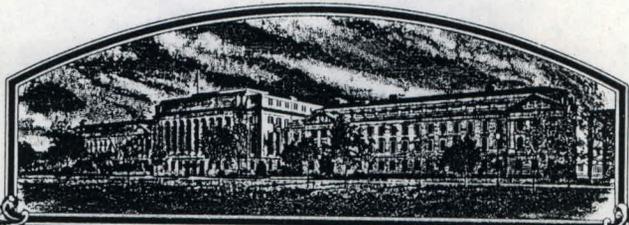


No.

8900081



# THE UNITED STATES OF AMERICA

**TO ALL TO WHOM THESE PRESENTS SHALL COME:**

**Cebeco Zaden B. V.**

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

PEA

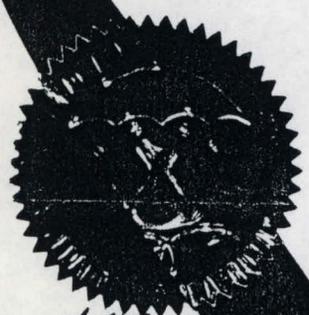
'Impala'

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 October in the year of our Lord one thousand nine hundred and ninety-one.

Attest

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

*Ed Madigan*  
Secretary of Agriculture



**APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE**

(Instructions on reverse)

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

1. NAME OF APPLICANT(S) CEBECO <del>HANDELSRAAD</del> <i>Zaden B.V.</i> <sup>JMS 2/15/90</sup>		2. TEMPORARY DESIGNATION	3. VARIETY NAME IMPALA
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) Blaak 31, P.O. Box 182, 3000 AD ROTTERDAM, The Netherlands		5. PHONE (Include area code) 011-31-10-4544504	FOR OFFICIAL USE ONLY PVPO NUMBER 8900081
6. GENUS AND SPECIES NAME Pisum sativum L.	7. FAMILY NAME (Botanical) Leguminosae		FILING DATE <i>Jan. 26, 1989</i> TIME <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.
8. KIND NAME Pea	9. DATE OF DETERMINATION September 1986		AMOUNT FOR FILING \$ <i>1800.00</i> DATE <i>Jan. 9, 1989</i>
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Agricultural Cooperative			AMOUNT FOR CERTIFICATE \$ <i>200.00</i> DATE <i>October 8, 1991</i>
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Rotterdam, The Netherlands			12. DATE OF INCORPORATION 01-07-1899
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS International Seeds Inc. --- 820, First Street HALSEY, Oregon 97348 U.S.A.			
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED			
a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)		c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)	
b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement		d. <input checked="" type="checkbox"/> 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.) <input checked="" type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input type="checkbox"/> No			
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input checked="" type="checkbox"/> Foundation <input checked="" type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified	
18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES? West Germany: 02-12-1986      England: 25-09-1986 <input checked="" type="checkbox"/> Yes (If "Yes," give names of countries and dates) Denmark: 20-01-1987 The Netherlands: 23-01-1987 <input type="checkbox"/> No			
19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES? <input type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input checked="" type="checkbox"/> 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>[Signature]</i> vereniging voor land- en tuinbouw b.a. <b>CEBECO HANDELSRAAD</b>			DATE 19 1 288 - -
SIGNATURE OF APPLICANT			DATE

NOTE: THERE HAS BEEN A CHANGE IN THE FEES.

#### INSTRUCTIONS

**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 (as amended November 8, 1982).] Retrain 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 differences are significant; 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.





# CEBECO-HANDELSRAAD

Postbus 182 3000 AD Rotterdam

EXHIBIT A

=====

8900081

## Origin and breeding history of the Variety

IMPALA white field pea is derived from a crossing of the varieties

CEBECO 7.51 X CEBECO 7.57

made in 1978 <sup>9 [16 Sep 1991 AAA]</sup> at our plant breeding station in Lelystad, the Netherlands.

After one generation of the population was conducted in the greenhouse, a plant selection was made in 1981. Reselection was made in 1983 and was followed by line selection and replicated field trials. <sup>[See attached amendment of this P. AAA 16 Sep 1991]</sup>

Results of the official D.U.S. tests in England by N.I.A.B. (2 generations) showed that IMPALA is a distinct, uniform and stable variety. Preliminary results from the official D.U.S. tests in Germany by the B.S.A., in France by the C.T.P.S. and in the Netherlands by the R.I.V.R.O. subscribe the results of the N.I.A.B.

IMPALA is genetically stable. During the seed production no offtypes have been observed.

The maintenance of IMPALA is taking place as follows:

1. Line selection at the plant breeding station
2. Multiplication on a small scale at the plant breeding station
3. Production of prebasic seed at the plant breeding station and/or multiplication farms (under the supervision of the breeder and the official certification service, the N.A.K.).

N.I.A.B. = National Institute of Agricultural Botany

B.S.A. = Bundessortenamt

C.T.P.S. = Comité Technique Permanent de la Sélection des plantes cultivées

R.I.V.R.O. = Rijksinstituut Voor het Rassenonderzoek van cultuurgewassen

N.A.K. = Nederlandse Algemene Keuringsdienst.

Rotterdam, 19th December 1988

Nationale coöperatieve aan- en verkoop-  
vereniging voor land- en tuinbouw b.a.

**CEBECO-HANDELSRAAD**

8900081  
[AAA 6 Sept 1991]

Added

EXHIBIT B

Impala is similar to the variety Solara. Impala, however differs from Solara in several characteristics. These include, but are not necessarily limited to the following:

1. Impala is 5 days later in flowering than Solara
2. The Stem length of Impala averages 18 cm longer than that of Solara.
3. The seed color of Impala is white while that of Solara is blue-green.
4. The 100 seed weight of Impala is significantly less than that of Solara.
5. Impala is susceptible to Fusarium wilt while Solara is resistant.



# CEBECO-HANDELSRAAD

Postbus 182 3000 AD Rotterdam  
EXHIBIT B  
=====

Differences of the pea variety IMPALA, compared with SOLARA and  
COUNTESS.

	<u>Seed colour</u>	<u>Resistance to wilt</u>	<u>Seed shape</u>
IMPALA	white	no	rounded
SOLARA	blue	yes	rounded
COUNTESS	white	yes	angular (marrowfat)

Absolute difference - so without LSD

Other differences:

<u>Length</u>	<u>Average</u>			
IMPALA	95.4 cm			
SOLARA	77.0 cm	LSD	.05	2.76
COUNTESS	91.0 cm		.01	4.02

<u>T.K.W.</u>	<u>Average</u>			
IMPALA	251.4 gr.			
SOLARA	313.8 gr.	LSD	.05	17.49
COUNTESS	341.2 gr.		.01	25.45

<u>Begin flowering</u>	<u>Average</u>			
IMPALA	17.6	days after the first of June		
SOLARA	12.8	"		
COUNTESS	11.6	"		
		LSD	.05	2.58
			.01	3.76

Rotterdam, 19th December 1988

Nationale coöperatieve aan- en verkoop-  
vereniging voor land- en tuinbouw b.a.

**CEBECO-HANDELSRAAD**

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)

EXHIBIT C  
(Pea)

NAME OF APPLICANT(S)  
CEBECO-HANDELSRAAD

VARIETY NAME OR TEMPORARY DESIGNATION  
IMPALA

ADDRESS (Street and No. or R. F. D. No., City, State, and ZIP Code)  
Blaak 31, P.O. Box 182, 3000 AD ROTTERDAM,  
The Netherlands

FOR OFFICIAL USE ONLY

PVPO NUMBER 8900081

Place the appropriate number that describes the varietal character in the boxes below.  
Place a zero in first box (e.g. 089 or 09) when number is either 99 or less or 9 or less.

1. TYPE:

semi-leafless variety

2 1 - GARDEN 2 - FIELD 3 - EDIBLE-PODDED

2. MATURITY:

1  0 No. of days later than  3

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

0  0 No. of days Earlier than  4 } 1 - ALASKA WR 2 - THOMAS LAXTON WR 3 - LITTLE MARVEL

0  3 No. of days Later than  7 } 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER 7 = SOLARA

5 AAA 6 Sept 1991

3. PLANT HEIGHT:

0  9  6 CM. HIGH (average of 4 years)

1  0 Cm. Shorter than  3 } 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

1  5 Cm. Taller than  7 } 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER 7 = SOLARA

4. VINE:

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

3 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  2  5 NUMBER OF NODES incl. fertile nodes

5. ~~LEAFLETS~~ stipules

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

4 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 (no leaflets)

6. STIPULES:

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

2 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:

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

Keel venation is greenish

2 AAA 6 Sept 1991

8. PODS: (in green shell stage)

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 Color: 4 = OTHER (Specify) \_\_\_\_\_  
 1 Surface: 1 = SMOOTH 2 = ROUGH *AAA 6 Sort 1991*  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  4 MM. WIDTH (Between sutures)  0  7 NO. SEEDS PER POD

9. SEEDS (95-100 Tenderometer):

1 Color: 1 = LIGHT GREEN 2 = GREEN 3 = DARK GREEN 4 = OTHER (Specify) \_\_\_\_\_  
 Sieve: %  1  2  3  4  5  6  7  8  AVERAGE  
 SEEDS (Dry, Mature):  
 4 Shape: 1 = FLATTENED 2 = ANGULAR 3 = OVAL 4 = ROUNDED  
 1 Surface: 1 = SMOOTH 2 = DIMPLED  2 Surface: 1 = SHINY 2 = DULL  
 3 = WRINKLED  
 1 Color Pattern: 1 = MONOCOLOR 2 = MOTTLED 3 = STRIPED 4 = DOTTED  
 6 Primary Color: 1 = CREAMY-WHITE 2 = CREAM & GREEN 3 = LIGHT GREEN 4 = MEDIUM GREEN  
*AAA 6 Sort 1991* } 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  2 Cotyledon Color: 1 = GREEN 2 = YELLOW 3 = ORANGE  
 3 = BLACK

2  5 GRAMS PER 100 SEEDS

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

1 FUSARIUM WILT resistant for race I  0 NEAR-WILT  1 DOWNY MILDEW  
 2 ASCOCHYTA BLIGHT resistant for race C  1 POWDERY MILDEW  0 BACTERIAL BLIGHT  
 0 MOSAIC  0 PEA ENATION MOSAIC  0 YELLOW BEAN MOSAIC  
 OTHER (Specify) \_\_\_\_\_

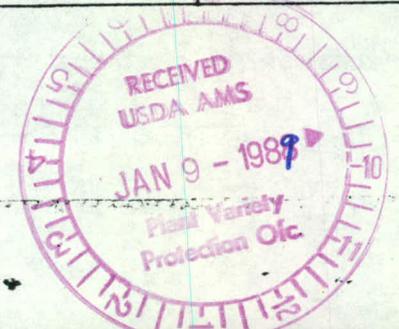
11. INSECT: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

1 APHIDS  OTHER (Specify) \_\_\_\_\_

12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	Solara	Fresh Seed Color	Solara/Finale
Leaf Color	Solara	Mature Seed Color	Solara/Finale
Pod Color	Solara	Seed Shape	Solara/Finale
Pod Shape	Solara/Maxi	Plant Habit	Solara

COMMENTS:





# CEBECO-HANDELSRAAD

Postbus 182 3000 AD Rotterdam

## EXHIBIT D

=====

IMPALA (Cebeco 1415) white pea; semi-leafless type.

Characteristics of the variety supporting the application.

### References:

<u>Variety name and Breeder's number:</u>	IMPALA (Cebeco 1415)
<u>Origin:</u>	Crossing: Cebeco 7.51 x Cebeco 7.57 in 1979 Single plant selection in 1981 and 1983
<u>Maintenance:</u>	Line selection, small multiplication, prebasic seed, basic seed
<u>Type:</u> (State for what purpose it is normally utilised)	Edible pea/Field pea
<u>Flowering:</u>	
number of node of the first flower:	18
number of days from sowing to the first inflorescence:	67 days (4 years average)
<u>Plant height:</u>	
total length of stem:	96 cm (4 years average)
relative to control variety (Solara)	15 cm longer <i>8 AAA 6 Sept 1991</i>
<u>Vine:</u>	
habit	determinate
stockiness	medium
internode	slightly zig-zag
branching	medium
number of nodes (total)	till 25
<u>Leaflets:</u>	
number of leaflets - present or absent	absent (leafless variety)
tendrils	very strong
glaucosity of tendrils	very strong
<u>Stipules:</u>	
present or absent	present
clasping or not clasping	clasping
glaucosity	medium to strong
marbling	medium
colour	grey-green (medium)
margins	serated
size	medium

Flower:

colour of standard	white
colour of wings	white
colour of the keel	white with greenish venation
size of standard	medium
number at flowering node	two
standard base shape	arched

Pods:

number of pods on second fertile node	2 (two)
shape (in green shell stage)	straight and blunt
curvature	slightly curved
colour	medium green to light green
surface	smooth and shiny
length	8.1 cm - medium
width	medium - 14 mm
shape of pod cross-section	round elleptic

Grain:

colour (dry)	white
shape	rounded
surface	smooth and dull
cotyledon colour	yellow-orange
testa	not coloured
hilumfloor colour	not coloured (like testa)
shape of starch grains	simple
100 grain weight	25 grams

Rotterdam, 19th December 1988

Nationale coöperatieve aan- en verkoop-  
vereniging voor land- en tuinbouw b.a.


**CEBECO-HANDELSRAAD**



# CEBECO-HANDELSRAAD

Postbus 182 3000 AD Rotterdam

8900081

EXHIBIT E

=====

## Authorization

The Undersigned:           CEBECO-HANDELSRAAD  
P.O. Box 182, Blaak 31  
3000 AD ROTTERDAM  
The Netherlands

declare that they are the owners\* of the new variety IMPALA, white field pea.

They also declare that they authorize:

International Seeds Inc.  
P.O. Box 168, 820, First Street  
HALSEY, Oregon 97348  
U.S.A.

to submit for and on behalf of them an application for Plant Variety Protection Certificate in the U.S.A. for the variety IMPALA, white field pea,

to prepare, sign and submit the documents necessary for that purpose

and

to make all attendances upon the Plant Variety Protection Board relating to the application for Plant Variety Protection Certificate for their variety IMPALA.

*\* "Cebeco Zaden B.V. is the employer of the breeder and therefore owns the variety"  
AAA 6 Sept 1991  
(See attached)*

Rotterdam, 19th December 1988

Nationale coöperatieve aan- en verkoops  
vereniging voor land- en tuinbouw b.a.  
**CEBECO-HANDELSRAAD**