

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Holland-Select, 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 EXPORTING 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. 2321, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'Monaco'

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 27th day of January in the year of our Lord one thousand nine hundred and eighty-three.

Attest:

Kenneth H. Evans
Acting Commissioner
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

John R. Block
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) Holland-Select, B.V.		2. TEMPORARY DESIGNATION Monaco		3. VARIETY NAME MONACO	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O. Box 27 1619ZG Andijk, Holland		5. PHONE (Include area code) 2289-1578 Holland		FOR OFFICIAL USE ONLY PVPO NUMBER 8200188	
6. GENUS AND SPECIES NAME <u>Phaseolus vulgaris</u>		7. FAMILY NAME (Botanical) FABACEAE		FILING DATE 9/28/82 TIME 11:30 <input checked="" type="checkbox"/> A.M. <input type="checkbox"/> P.M.	FEES RECEIVED AMOUNT FOR FILING \$ 500.00 DATE 9/28/82 AMOUNT FOR CERTIFICATE \$ 250.00 DATE 1/10/83
8. KIND NAME Garden Bean		9. DATE OF DETERMINATION September 1980			
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 Holland	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Holland				12. DATE OF INCORPORATION	

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
 Dr. Vernon J. Fisher, Director of Research, L. D. Maffei Seed Co., Inc., P.O. Box 903, Newman, CA 95360

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 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.)
 Yes (If "Yes," answer items 16 and 17 below) No

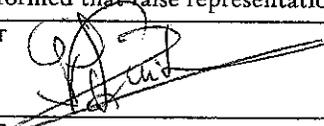
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
 Yes No

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. OR OTHER COUNTRIES?
 Holland - December 2, 1981 Yes (If "Yes," give names of countries and dates)
 United Kingdom, November 30, 1981 No

19. HAVE RIGHTS BEEN GRANTED 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 September 9, 1982
SIGNATURE OF APPLICANT Gerrit J. Ruiter	DATE 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. 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 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.



Exhibit A. Origin and Breeding History

Monaco originated from a cross between two non-commercial breeding lines from the breeding program of Holland Select. One of these lines had Groffy, an important European processing variety, as a parent. The other had PI 150414, a source of Halo Blight resistance, as a parent. Single plant selections were made through six generations, at the end of which Nr 805, one of the resultant pure lines carrying excellent processing quality coupled with resistance to Halo Blight, was chosen for seed increase. It was subsequently named Monaco.

The decision to increase the seed supply was made in September 1980.

Variants include an occasional seed with truncate rather than rounded ends, and an occasional plant with slightly larger and brighter colored leaves than the others.

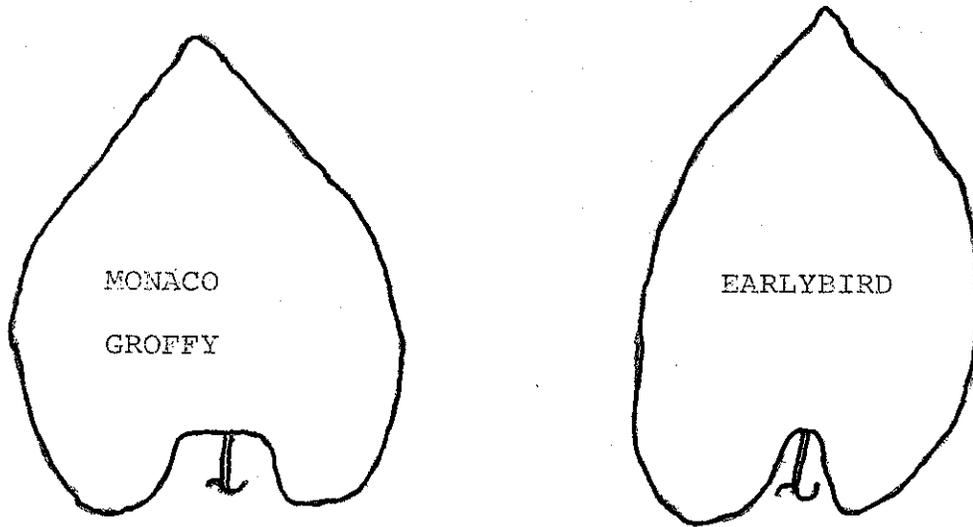
Stability is indicated by uniformity of plants and harvested pods through three generations of testing. Slight variation has occurred in sieve sizes.

Exhibit B. Novelty Statement

Monaco most closely resembles Earlybird. It differs in having darker pod flesh color (139 C on the Royal Horticultural Society scale versus 138 B for Earlybird). Monaco is resistant to Halo Blight Race 113 whereas Earlybird is susceptible. Monaco pods are of smaller sieve sizes than those of Earlybird as shown by the following comparison, which was made on August 30, 1982, 66 days after planting:

Only 5 percent of Monaco pods were of sieve size 6 or larger when 98 percent of the pods, by weight, had reached sieve size 4. On the other hand, 27 percent of Earlybird pods were of sieve size 6 or larger when only 82 percent of the pods had reached sieve size 4.

Monaco differs from Earlybird and most other varieties in that the base of the primary leaf blade near the point of attachment of the petiole is straight rather than curved. See diagrams on page 2.



Monaco differs from Groffy in that Monaco is resistant to Halo Blight Race 113, whereas Groffy is susceptible; the leaflets of Monaco are smaller than those of Groffy; Monaco leaf color is darker (137 B) than that of Groffy (137 C); pods of Monaco are darker, shorter, and of smaller sieve sizes than those of Groffy; and Monaco seeds are surrounded dorsoventrally by a slight ridge, except that the ridge is interrupted at the hylum. Groffy seeds have either no ridge or only a very faint ridge.



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) Holland-Select, B.V.	FOR OFFICIAL USE ONLY
	PVPO NUMBER 8200188
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O. Box 27 16197G Andijk, Holland	VARIETY NAME OR TEMPORARY DESIGNATION
	Monaco

Place numbers in the boxes (e.g.) 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. The location of test area is 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:

Days to edible pods Days to green shells

Days to dry seeds

Heat units to edible pods

Heat units to green shells

Heat units to dry seeds

No. days earlier than }
 Same as ... }
 No. days later than

- 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)

3. PLANT:

1 = Determinate 2 = Indeterminate

cm height

cm shorter than }
 Same as ... }
 comparison variety from above

cm taller than

cm spread

Number primary branches near base

cm narrower than }
 width same as ... }
 comparison variety from above

Branching habit:
1 = compact 2 = open

cm wider than

Main stalk: 1 = brittle 2 = wirey

1 = stout 2 = thin

3. PLANT: (Cont'd)

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

1 Bush form (illustrated below):



1 = spherical bush form



2 = stem bush form



3 = wide bush form



4 = high bush form

5 = other (specify) _____

4. LEAVES:

1 1 = smooth 2 = wrinkled

1 1 = dull 2 = glossy

1 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 5 Days to 50% bloom

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 (Brittiwax)
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
- 2 = 5.76 mm to 7.34 mm
- 3 = 7.34 mm to 8.34 mm
- 4 = 8.34 mm to 9.53 mm
- 5 = 9.53 mm to 10.72 mm
- 6 = 10.72 mm or larger

1	2	3	4	5	6
0	1	1	26	67	5

3 sieve	<input type="checkbox"/> 0 <input type="checkbox"/> 8	cm length	<input type="checkbox"/> 0 <input type="checkbox"/> 7	mm width	<input type="checkbox"/> 0 <input type="checkbox"/> 8	mm thickness
4 sieve	<input type="checkbox"/> 1 <input type="checkbox"/> 0	cm length	<input type="checkbox"/> 0 <input type="checkbox"/> 8	mm width	<input type="checkbox"/> 1 <input type="checkbox"/> 0	mm thickness
5 sieve	<input type="checkbox"/> 1 <input type="checkbox"/> 1	cm length	<input type="checkbox"/> 1 <input type="checkbox"/> 0	mm width	<input type="checkbox"/> 1 <input type="checkbox"/> 1	mm thickness
6 sieve	<input type="checkbox"/> 1 <input type="checkbox"/> 1	cm length	<input type="checkbox"/> 1 <input type="checkbox"/> 1	mm width	<input type="checkbox"/> 1 <input type="checkbox"/> 1	mm thickness

6. FRESH PODS: (Cont'd)

8200188

- 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
- 2 Constrictions: 1 = none 2 = slight 3 = deep
- 2 Pod flesh: 1 = light 2 = medium 3 = dark
- 1 1 mm spur length
- 2 Fiber: 1 = none 2 = sparse 3 = considerable
- 5 Number of seeds per pod
- 1 Surface: 1 = smooth 2 = rough
- 2 Suture string: 1 = present 2 = absent
- 2 Seed development (Snap Bean): 1 = slow 2 = medium 3 = fast
- 1 Machine harvest: 1 = adapted 2 = not adapted
- 1 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:

- 1 Hilum view: 1 = elliptical, 2 = oval 3 = round
- 4 Cross section: 1 = elliptical 2 = oval 3 = cordate 4 = round
- 1 Side view:  1 = oval to oblong  2 = round  3 = reniform

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

2 1 = truncate ends 2 = rounded ends

2 5 gm/100 seed

gm/100 seed lighter than

gm/100 seed same as

gm/100 seed heavier than

} comparison variety from page one

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

Flowers

Stems

Pods

Seeds

Leaves

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

2 Anthracnose (specify race below)
Lambda

0 Fuscos blight

0 Rust (specify race below)

0 Red node virus

0 Powdery mildew

0 Pod mottle virus

0 Fusarium root rot

2 Bean common mosaic virus (specify strain below)
NL 2 and NL 4

0 Pythium root rot

Mosaic mottle

0 Rhizoctonia root rot

Black root

0 Pythium wilt

0 Bean yellow mosaic virus

0 Angular leaf spot

0 Curly top

0 Bacterial wilt

0 Other (specify below)

2 Halo blight (specify race below) NL 113

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

0 Aphids

0 Root knot nematode

0 Leaf hopper

0 Seed corn maggot

0 Lygus

0 Thrips

0 Pod borer

0 Weavils

0 Other (specify below)

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

0 Heat

0 Cold

0 Drought

0 Air pollution

13. COMMENTS: