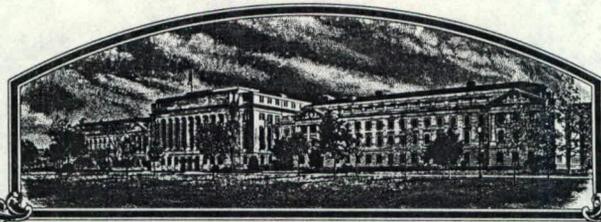


No.

8300041



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Rogers Brothers Seed Co.

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 OF 1930, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FIELD BEAN

'Opal'

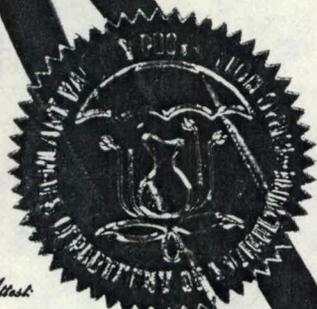
In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D. C. this 31st day of March in the year of our Lord one thousand nine hundred and eighty-six.

Attest:

*Kenneth G. ...*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*Richard E. Lyng*

Secretary of Agriculture





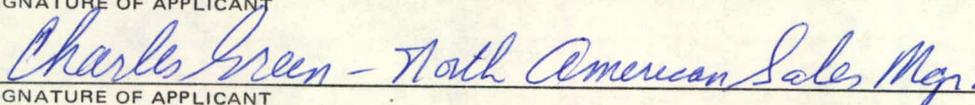
1086

**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)  ROGERS BROTHERS SEED COMPANY		2. TEMPORARY DESIGNATION  D-76035		3. VARIETY NAME  OPAL	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code)  P. O. BOX 80 IDAHO FALLS, IDAHO 83402		5. PHONE (Include area code)  (208) 522-0143		<b>FOR OFFICIAL USE ONLY</b> PVPO NUMBER  8300041	
6. GENUS AND SPECIES NAME  Phaseolus vulgaris		7. FAMILY NAME (Botanical)  Leguminosae		FILING DATE 12-27-82 TIME 3:30 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.	
8. KIND NAME  DRY EDIBLE BEAN		9. DATE OF DETERMINATION  SUMMER 1978		FEES RECEIVED AMOUNT FOR FILING \$ 1,000 DATE 12/27/82 AMOUNT FOR CERTIFICATE \$ 500. <sup>00</sup> DATE 3/7/86	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.)  CORPORATION				12. DATE OF INCORPORATION February 25, 1975	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION DELAWARE					
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS  Mr. Charles Green ROGERS BROTHERS SEED COMPANY P. O. Box 80 Idaho Falls, Idaho 83402					
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 type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input checked="" type="checkbox"/> No					
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?  <input type="checkbox"/> Yes <input type="checkbox"/> No			17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?  <input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input type="checkbox"/> Certified		
18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES?					
<input type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input checked="" 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 	DATE Dec. 21, 1982
SIGNATURE OF APPLICANT	DATE

## 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.



DRY EDIBLE BEAN  
EXHIBIT A

8300041

ORIGIN AND BREEDING HISTORY

Navy bean, Opal, was derived from the following cross pollination in the greenhouse during the Winter 1972-73.

GRATIOT X SW 44

Details of selection and multiplication are as follows:

	<u>Year</u>	<u>Generation</u>	<u>Field Number</u>	<u>Bulk Harvest</u>	<u>#Single Plant Selections</u>
Winter	1972-73	f <sub>1</sub>	Greenhouse	Approx. 3 oz.	
Summer	1973	f <sub>2</sub>	D 73-72	2" 13 oz.	2
Winter	1973-74	f <sub>3</sub>	Greenhouse	Approx. 2 oz.	
Summer	1974	f <sub>4</sub>	D 74-197		4
Summer	1975	f <sub>5</sub>	D 75-400-2		2
Winter	1975-76	f <sub>6</sub>	Greenhouse	Approx. 2 oz.	
Summer	1976	f <sub>7</sub>	D 76-1501		1
Summer	1977	f <sub>8</sub>	D 77-304	1# 6 oz.	Increase of single plant
Summer	1978	f <sub>9</sub>	D 78-2782	28#	

Stock D 78-2782 has been increased to commercial size quantities. This variety will be maintained through the procedure of pureline selection for stock seed.



DRY EDIBLE BEAN

'OPAL'

EXHIBIT A ADDENDA

March 6, 1986

STATEMENT OF UNIFORMITY

The variety 'Opal' was stabilized in the F<sub>8</sub> generation. 'Opal' has been observed to be stable for 7 generations in the field since 1977. We have made no observation of variants in the population.

RECEIVED

MAR 10 1986

U. S. DEPARTMENT



OF AGRICULTURE

AMS

PVPO

OPAL  
DRY EDIBLE BEAN

8300041

EXHIBIT B

NOVELTY STATEMENT

*MOST per letter 8/31/83  
VAL*  
OPAL is a navy bean similar to the variety Sanilac, but differs by the following characteristics.

1. OPAL has an upright, indeterminate, semi-vine plant habit. Sanilac has a determinate, upright, bush plant habit.
2. OPAL carries resistance to both the BV<sub>1</sub> and the NY<sub>15</sub> strains of bean common mosaic virus. Sanilac has resistance to the BV<sub>1</sub> strain only.

RECEIVED



1982

1982

The following information was obtained from the records of the  
 Department of Health, Education and Welfare, Office of  
 the Assistant Secretary for Health, Education and Welfare,  
 Washington, D.C., on December 17, 1982.  
 The information was obtained from the records of the  
 Department of Health, Education and Welfare, Office of  
 the Assistant Secretary for Health, Education and Welfare,  
 Washington, D.C., on December 17, 1982.

**RECEIVED**  
 DEC 27 1982





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

2 1 = truncate ends 2 = rounded ends

1  8 gm/100 seed

gm/100 seed lighter than .....

gm/100 seed same as ....  8

comparison variety from page one

gm/100 seed heavier than .....

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

1 Flowers

1 Stems

1 Pods

1 Seeds

1 Leaves

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

2 Anthracnose (specify race below)  
Alpha and gamma

0 Fuscous blight

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)  
BV<sub>1</sub> and NY<sub>15</sub>

0 Pythium root rot

0 Mosaic mottle

0 Rhizoctonia root rot

0 Black root

0 Pythium wilt

0 Bean yellow mosaic virus

0 Angular leaf spot

0 Curly top

0 Bacterial wilt

Other (specify below)

0 Halo blight (specify race below)

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:

8300041

OPAL  
DRY EDIBLE BEAN

EXHIBIT D

BOTANICAL DESCRIPTION

OPAL has a vigorous semi-vine, but open plant habit with well filled pods mostly held off the ground. In Twin Falls, Idaho, OPAL matures in 87 days which is the same for Sanilac. It is resistant to the BV<sub>1</sub> and NY<sub>15</sub> strains of bean common mosaic virus as well as the Alpha and Beta races of anthracnose.

OPAL has an average seed size of 2,550 seeds/pound compared to Sanilac at 2,450 seeds/pounds. OPAL has demonstrated good canning quality in tests with major canneries. In the regional dry bean nursery of 1981 (coordinated by Dr. John Kolar, Kimberly, Idaho) at 16 locations throughout the U.S., OPAL outyielded Sanilac by an average 160#/A. OPAL outyielded Sanilac significantly at Prosser, Washington; Saginaw, Michigan; Crookston, Minnesota; and Fargo, North Dakota in 1981.



