

No.

8900187



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Rogers Nk 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 THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 Stat. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'D81126'

*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 29th day of November in the year of our Lord one thousand nine hundred and ninety-one.*

Attest:

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

*Ed Madigan*  
Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0681-0055

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

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).

1. NAME OF APPLICANT(S) <b>NK AAA 16 Dec 1991</b> ROGERS BROTHERS SEED COMPANY		2. TEMPORARY DESIGNATION D81126	3. VARIETY NAME <b>D81126</b> <b>AAA 28 Oct 1991</b>
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P. O. Box 4727 Boise, Idaho 83711		5. PHONE (Include area code) (208) 322-7272	FOR OFFICIAL USE ONLY PVPO NUMBER 8900187
6. GENUS AND SPECIES NAME Phaseolus vulgaris	7. FAMILY NAME (Botanical) Leguminosae		FILING DATE <u>April 19, 1989</u> TIME <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.
8. KIND NAME Dry Edible Bean	9. DATE OF DETERMINATION January, 1987		FEES RECEIVED AMOUNT FOR FILING \$ <u>1800.00</u> DATE <u>Apr. 18, 1989</u> AMOUNT FOR CERTIFICATE \$ <u>200.00</u> DATE <u>Sept. 3, 1991</u>
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation			12. DATE OF INCORPORATION Feb. 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 Dr. Ronald Shellenberger Rogers Brothers Seed Company P. O. Box 4727 Boise, Idaho 83711			PHONE (Include area code): (208) 322-7272
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.)			
b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement.			
c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.)			
d. <input checked="" type="checkbox"/> Exhibit D, Additional Description of Variety.			
e. <input checked="" type="checkbox"/> Exhibit E, Statement of the Basis of Applicant's Ownership.			
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 checked="" 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) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.? <input type="checkbox"/> Yes (If "Yes," give date) <input checked="" type="checkbox"/> No			
19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED 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>Ronald Shellenberger - Busco Marketing Dir.</i>	DATE 3/30/89
SIGNATURE OF APPLICANT <i>Alden E. Hill, VICE-PRES.</i>	DATE 3-31-89

DRY EDIBLE BEAN  
D81126  
EXHIBIT A  
ORIGIN AND BREEDING HISTORY

The pinto bean 'D81126' was derived from the following cross pollination in the greenhouse during the Winter of 1974-1975.

UI 37 X Ouray

Details of selection and multiplication.

	<u>Year</u>	<u>Generation</u>	<u>Field Number</u>	<u>Bulk Harvest</u>	<u># SPS</u>
Winter	1974-75	F1	74-GH-331	3 oz	
Summer	1975	F2	D75-904	3# 3 oz	2
Summer	1977	F3	D77-2396		1
Summer	1978	F4	D78-2354		3
Winter	1978-79	F5	GH-90	1 oz	
Summer	1979	F6	D79-2271		1
Summer	1980	F7	D80-1631	1# 15 oz	
Summer	1981	F8	D81-0126	6# 8 oz	2
Summer	1982	F9	D82-0644	2# 9 oz	
Summer	1983	F10	D83-3831	14#	
Summer	1984	F11	D84-3141	388#	
Summer	1985	F12	D85-2448	9,575#	

D81126 has been observed to be stable and uniform in the field since the F8 generation.

Stock D85-2448 has been increased to commercial size quantities. Seed stock will be monitored for purity.

## DRY EDIBLE BEAN

D81126

## EXHIBIT B

## NOVELTY STATEMENT

Our variety D81126 is most nearly like the variety UI 114, however it differs in the following areas.

1. D81126 has a Type IIB plant habit, whereas UI 114 has a Type IIIA plant habit.
2. D81126 is more upright and narrower profile than UI 114.
3. D81126 matures 3 days earlier than UI 114, 87 days compared to 90 days for the years 1981-1986 and 1988 in Twin Falls, Idaho.
4. D81126 has a longer pod and a shorter pod beak than UI 114.

DRY EDIBLE BEAN

D81126

EXHIBIT B

SUPPLEMENT

MATURITY

	<u>Topaz</u>	<u>D81126</u>	<u>UI 114</u>
1988	84 days	88 days	90 days (data from preliminary)
1987	101 days		99 days
1986	80 days	84 days	92 days
1985	83 days	88 days	90 days
1984	89 days	89 days	96 days
1983	88 days	90 days	88 days
1982	88 days	86 days	88 days
1981	<u>82 days</u>	<u>82 days</u>	<u>83 days</u>
$\bar{x} =$	84.86	86.71	89.57

POD LENGTHD81126

130 mm

140

125

115

130

120

115

120

125

118

107

115

120

118

105

120

115

110

107

---

118.68UI 114

110 mm

120

110

115

120

120

104

110

119

115

110

110

110

125

95

125

105

125

120

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110

113.90

Data file PVPB1126  
 Title: PVP D81126 VS UI 114

8900187

Function: ANOVA-1  
 Data case no. 1 to 40  
 Without selection

One way ANOVA grouped over variable 1  
 VARIETY  
 with values from 1 to 2

Variable 3  
 POD LENGTH (MM)

A N A L Y S I S O F V A R I A N C E T A B L E

	Degrees of Freedom	Sum of Squares	Error Mean Square	F-value	Prob.
Between	1	223.0178	223.02	3.20	.081
Within	37	2575.9053	69.62		
Total	38	2798.9231			

Coefficient of Variation= 7.18%

Var.	V A R I A B L E	No.	3		
1	Number	Sum	Average	SD	SE
1	19.00	2255.000	118.68	8.78	1.91
2	20.00	2278.000	113.90	7.91	1.87
Total	39.00	4533.000	116.23	8.58	1.37
Within				8.34	

Bartlett's Test

Chi-square = .1982764  
 Number of Degrees of Freedom = 1  
 Approximate Significance = .6561

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POD BEAK LENGTH

D81126

12 mm

10

9

10

6

10

6

10

8

8

9

10

9

9

11

10

12

11

10

---

9.47

UI 114

13 mm

14

10

14

8

7

10

12

12

10

9

10

11

9

10

9

13

10

14

15

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11.00

Data file PVP81126  
 Title: PVP DB1126 VS UI 114

Function: ANOVA-1  
 Data case no. 1 to 40  
 Without selection

One way ANOVA grouped over variable 1  
 VARIETY  
 with values from 1 to 2

Variable 4  
 POD BEAK LENGTH (mm)

A N A L Y S I S   O F   V A R I A N C E   T A B L E

	Degrees of Freedom	Sum of Squares	Error Mean Square	F-value	Prob.
Between	1	22.6991	22.70	5.80	.021
Within	37	144.7368	3.91		
Total	38	167.4359			

Coefficient of Variation= 19.28%

Var.	V A R I A B L E	No.	4		
1	Number	Sum	Average	SD	SE
1	19.00	180.000	9.47	1.65	0.45
2	20.00	220.000	11.00	2.25	0.44
Total	39.00	400.000	10.26	2.10	0.34
Within				1.98	

Bartlett's Test

Chi-square = 1.714183  
 Number of Degrees of Freedom = 1  
 Approximate Significance = .1904



5. FLOWER COLOR AND DAYS TO BLOOM

1 COLOR OF STANDARD: 1 = White; 2 = Cream; 3 = Pink; 4 = Blue; 5 = Purple

1 COLOR OF KEEL: 1 = White; 2 = Cream; 3 = Pink; 4 = Blue; 5 = Purple

1 COLOR OF WINGS: 1 = White; 2 = Cream; 3 = Pink; 4 = Blue; 5 = Purple

4  7 Days to <sup>1st</sup> 50% bloom 47.3 days ( $\bar{x}$ -7 years)

6. POD MORPHOLOGY (Green pod morphology optional)

Green Mature

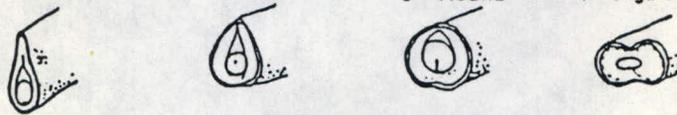
1  1 COLOR PATTERN: 1 = Solid; 2 = Striped; 3 = Blotched; 4 = Mottled; 5 = Other \_\_\_\_\_

3  4 PRIMARY COLOR: 1 = Purple; 2 = Red; 3 = Green; 4 = Yellow; 5 = Tan; 6 = Brown; 7 = Other \_\_\_\_\_

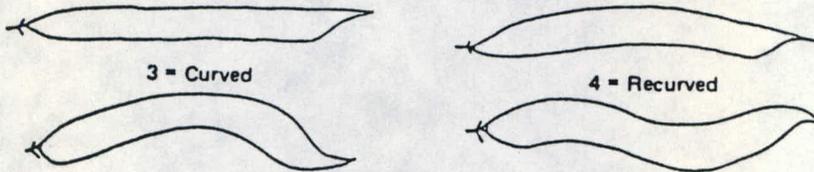
1  1 COLOR MODIFIER: 1 = Light; 2 = Light Medium; 3 = Medium; 4 = Medium Dark; 5 = Dark

SECONDARY COLOR: 1 = Purple; 2 = Red; 3 = Green; 4 = Yellow; 5 = Tan; 6 = Brown; 7 = Other \_\_\_\_\_

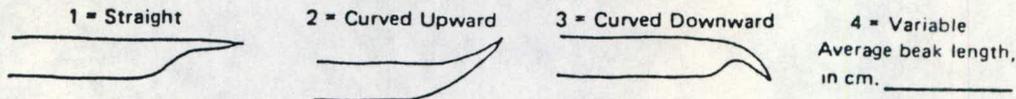
1  1 CROSS SECTION SHAPE: 1 = Flat 2 = Pear 3 = Round 4 = Figure Eight



1  1 POD CURVATURE: 1 = Straight 2 = Slightly Curved 3 = Curved 4 = Recurved



3  3 POD BEAK ORIENTATION: 1 = Straight 2 = Curved Upward 3 = Curved Downward 4 = Variable Average beak length, in cm. \_\_\_\_\_



3  3 CONSTRICTIONS: 1 = None; 2 = Slight; 3 = Deep

Average number of seeds per pod Not available

7. SEED COLOR

1 1 = Shiny; 2 = Dull; 3 = Semishiny; 4 = Variable

2 1 = Monochrome; 2 = Polychrome

4 PRIMARY COLOR: 1 = White; 2 = Yellow; 3 = Buff; 4 = Tan; 5 = Brown; 6 = Pink; 7 = Red; 8 = Purple; 9 = Blue; 10 = Black; 11 = Other \_\_\_\_\_

5 SECONDARY COLOR: 1 = White; 2 = Yellow; 3 = Buff; 4 = Tan; 5 = Brown; 6 = Pink; 7 = Red; 8 = Purple; 9 = Blue; 10 = Black; 11 = Other \_\_\_\_\_

3 COLOR PATTERN: 1 = Solid; 2 = Splashed; 3 = Mottled; 4 = Striped; 5 = Flecked; 6 = Dotted

2 HILAR RING: 1 = Absent; 2 = Present

2 HILAR RING COLOR: 1 = White; 2 = Yellow; 3 = Buff; 4 = Tan; 5 = Brown; 6 = Pink; 7 = Red; 8 = Purple; 9 = Blue; 10 = Black; 11 = Other \_\_\_\_\_

8. SEED SHAPE AND WEIGHT

5 SHAPE OF SEED TAKEN FROM MIDDLE OF POD: 1 = Round 2 = Oval 3 = Cuboid 4 = Kidney 5 = Truncate Fastigate



3  6 Dry seed weight in g/100g seeds (adjusted to 12% moisture) 36.2 1255 seeds/lb

9. ANTHOCYANIN PIGMENTATION

1 = ABSENT  
2 = PRESENT

<input checked="" type="checkbox"/> Flowers	<input checked="" type="checkbox"/> Stems	<input checked="" type="checkbox"/> Pods	<input checked="" type="checkbox"/> Seeds
<input checked="" type="checkbox"/> Leaves	<input checked="" type="checkbox"/> Petioles	<input checked="" type="checkbox"/> Peduncles	<input checked="" type="checkbox"/> Nodes

10. KNOWN DISEASE REACTION

DISEASES - COMMON NAME: Anthracnose, Rust, Powdery mildew, Fusarium root rot, Pythium root rot, Rhizoctonia root rot, Pythium wilt, Sclerotinia white mold, Angular leaf spot, Bacterial wilt, Halo blight, Fuscous blight, Common bacterial blight, Red node virus, Pod mottle virus, Bean common mosaic virus, Bean yellow mosaic virus, Curly top virus, Bacterial brown spot, Bean southern mosaic virus, Other (specify) \_\_\_\_\_

REACTION: 1 = Susceptible; 2 = Resistant; 3 = Tolerant; 4 = Avoidance

(Give the common name (CN), scientific name (SN), and race(s), where applicable)

DISEASE: CN Bean Common Mosaic Virus; SN Marmor phaseali; Race(s) NY 15 & BV1

DISEASE: CN \_\_\_\_\_; SN \_\_\_\_\_; Race(s) \_\_\_\_\_

11. KNOWN INSECT/NEMATODE RESISTANCE

PESTS - COMMON NAME: Aphids, Bean pod weevil, Bruchid beetle, Corn earworm, Flea beetle, Leaf hopper, Lesion nematode, Lygus Mexican bean beetle, Root knot nematode, Corn seed maggot, Spider mites, Thrips, Weevils, Western bean cutworm, Other (specify) \_\_\_\_\_

REACTION: 1 = Susceptible; 2 = Resistant; 3 = Tolerant; 4 = Avoidance

(Give the common name (CN), scientific name (SN), and biotype, where applicable)

PEST: CN \_\_\_\_\_; SN \_\_\_\_\_; Biotype \_\_\_\_\_

PEST: CN \_\_\_\_\_; SN \_\_\_\_\_; Biotype \_\_\_\_\_

PEST: CN \_\_\_\_\_; SN \_\_\_\_\_; Biotype \_\_\_\_\_

12. KNOWN PHYSIOLOGICAL STRESS REACTION

1 = Susceptible; 2 = Resistant; 3 = Tolerant; 4 = Avoidance

Heat  Cold  Drought  Air Pollution

Nutrient toxicity or deficiency (specify nutrient) \_\_\_\_\_

Other \_\_\_\_\_

13. COMMENTS

**DRY EDIBLE BEAN****D81126****EXHIBIT D****BOTANICAL DESCRIPTION**

Pinto bean D81126 is an upright, narrower profile variety that holds most of its pods off the ground. It has a Type IIB plant habit. D81126 has shown adaptability in the production areas of Idaho, Washington and North Dakota. Because of its upright and narrower plant habit, D81126 lends itself to higher density planting and direct harvest.

D81126 is resistant to the BV 1 and NY 15 strains of Bean Common Mosaic Virus.

D81126 has an average seed count of 1255 seeds per pound, which compares to 1278 seeds per pound for UI 114.

D81126 matures in 87 days, which is three days earlier than UI 114 and two days later than Topaz, in Twin Falls, Idaho, in the years 1981-1986 and 1988 (maturity defined as 90% of pods turned from green to buckskin).

**DRY EDIBLE BEAN****D81126****EXHIBIT E****APPLICANT'S OWNERSHIP**

Variety D81126 was developed by Ronald Shellenberger, Ph.D., a Rogers Brothers Seed Company plant breeder, with Rogers Brothers Seed Company funding the development of the variety. By agreement between employees and Rogers Brothers Seed Company, all rights to any variety developed by employees are assigned to the Company. No rights to such varieties are retained by employees.

State of Delaware

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Office of the Secretary of State

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I, WILLIAM T. QUILLEN, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THAT THE SAID "ROGERS NK SEED CO.", FILED A CERTIFICATE OF AMENDMENT, CHANGING ITS NAME TO "ROGERS SEED CO.", THE FIFTH DAY OF MAY, A.D. 1994, AT 9 O'CLOCK A.M.



*William T. Quillen*

William T. Quillen, Secretary of State

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0810041 8320

AUTHENTICATION: 7120759

944080001

DATE: 05-16-94

14

**CERTIFICATE OF AMENDMENT**  
**OF**  
**CERTIFICATE OF INCORPORATION**  
**OF**  
**ROGERS NK SEED CO.**

Adopted in accordance with the provisions  
of Section 242 of the General Corporation  
Law of the State of Delaware

EFFECTIVE DATE: June 1, 1994

We, Willem van Overschot, President, and Richard B. Geller, Secretary, of Rogers NK Seed Co., a corporation existing under the laws of the State of Delaware, do hereby certify as follows:

FIRST: The Certificate of Incorporation of the corporation was filed on 2/27/75.

SECOND: The Certificate of Incorporation of said corporation has been amended as follows:

By striking out the whole of Article I thereof as it now exists and inserting in lieu and instead thereof, a new Article I, reading as follows:

ARTICLE I

Name

The name of the Corporation is ROGERS SEED CO.

THIRD: Such amendment has been duly adopted in accordance with the provisions of the General Corporation Law of the State of Delaware, by the unanimous written consent of all of the stockholders entitled to vote in accordance with the provisions of Section 228 of the General Corporation Law of the State of Delaware.

FOURTH: See attached Written Consent of Sole Shareholder and Board of Directors' Resolution.

IN WITNESS WHEREOF, we have signed this certificate this 13<sup>th</sup> day of April, 1994.

Willem van Overschot  
Willem van Overschot, President

Richard B. Geller  
Richard B. Geller, Secretary

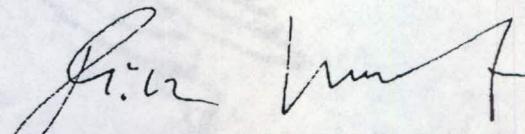
ROGERS NK SEED CO.

WRITTEN CONSENT OF SOLE SHAREHOLDER

SANDOZ CORPORATION, owner of all of the issued and outstanding shares of ROGERS NK SEED CO., hereby consents, pursuant to Section 228 of the Delaware General Corporation Law, to the adoption of the following resolution as and for the act of the shareholder:

RESOLVED, that SANDOZ CORPORATION, as sole shareholder, approves the amendment to Article I of the Certificate of Incorporation of ROGERS NK SEED CO., changing its name to **ROGERS SEED CO.**

Dated: April 22, 1994

  
\_\_\_\_\_  
Heinz P. Imhof,  
Chief Executive Officer  
Sandoz Corporation

ROGERS NK SEED CO.

**RESOLUTION**

RESOLVED, that according to Section 242 of the General Corporation Law of the State of Delaware, that Article I of the Certificate of Incorporation be amended, effective June 1, 1994, to read as follows: The name of the Corporation is **ROGERS SEED CO.**; and, further,

RESOLVED, that the appropriate officers of Rogers NK Seed Co. be, and they hereby are, authorized to take any and all further action and execute and deliver any and all further documents that may be necessary or desirable in order to carry out and effectuate fully the purposes set forth in the foregoing resolution.

ADOPTED UNANIMOUSLY BY THE BOARD  
MARCH 31, 1994

Richard B. Geller  
Richard B. Geller, Secretary

State of Delaware  
Office of the Secretary of State PAGE 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"ROGERS SEED CO.", A DELAWARE CORPORATION,  
WITH AND INTO "NOVARTIS SEEDS, INC." UNDER THE NAME OF "NOVARTIS SEEDS, INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE TWENTY-FIFTH DAY OF JUNE, A.D. 1997, AT 9 O'CLOCK A.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.



*Edward J. Freel*

Edward J. Freel, Secretary of State

0829320 8100M  
971211787

AUTHENTICATION: 8531908  
06-26-97

DATE:

STATE OF DELAWARE  
SECRETARY OF STATE  
DIVISION OF CORPORATIONS  
FILED 09:00 AM 06/25/1997  
971211787 - 0829320

**CERTIFICATE OF MERGER  
OF  
ROGERS SEED CO.  
INTO  
NOVARTIS SEEDS, INC.**

The undersigned corporation organized and existing under and by virtue of the General Corporation Law of Delaware,

**DOES HEREBY CERTIFY:**

**FIRST:** That the name and state of incorporation of each on the constituent corporations of the merger is as follows:

<b>NAME</b>	<b>STATE OF INCORPORATION</b>
Novartis Seeds, Inc.	Delaware
Rogers Seed Co.	Delaware

**SECOND:** That an Agreement and Plan of Merger between the parties to the merger has been approved, adopted, certified, executed and acknowledged by each of the constituent corporations in accordance with the requirements of section 251 of the General Corporation Law of Delaware

**THIRD:** That the name of the surviving corporation is Novartis Seeds, Inc.

**FOURTH:** That the Certificate of Incorporation of Novartis Seeds, Inc., a Delaware corporation which will survive the merger, shall be the Certificate of Incorporation of the surviving corporation.

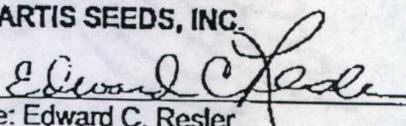
**FIFTH:** That the executed Agreement and Plan of Merger is on file at the principal place of business of the surviving corporation, the address of which is 7500 Olson Memorial Highway, Golden Valley, MN 55427.

**SIXTH:** That a copy of the Agreement and Plan of Merger will be furnished by the surviving corporation, on request and without cost, to any stockholder of any constituent corporation.

**SEVENTH:** That this Certificate of Merger shall be effective on July 1, 1997.

Dated June 23, 1997

**NOVARTIS SEEDS, INC.**

By:   
Name: Edward C. Resler  
Title: Vice President & General Counsel