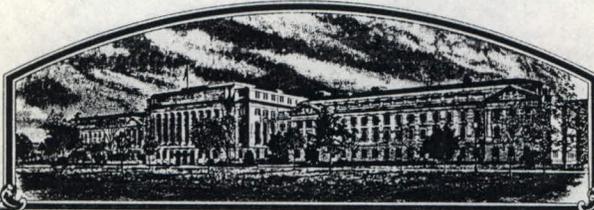


No.

8900128



# 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, 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 (7 U.S.C. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'Flint'

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 28th day of June in the year of our Lord one thousand nine hundred and ninety-one.

Attest:

*Kenneth E. Evans*  
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. 0681-0065

**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) <i>Rogers NK Seed Co.</i> <del>ROGERS BROTHERS SEED COMPANY</del> <i>per letter 21 May 1991 AAT</i>		2. TEMPORARY DESIGNATION 81122	3. VARIETY NAME FLINT																
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																	
6. GENUS AND SPECIES NAME Phaseolus vulgaris		7. FAMILY NAME (Botanical) Leguminosae																	
8. KIND NAME Dry edible bean		9. DATE OF DETERMINATION Summer 1984																	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg);">FILING</td> <td>DATE</td> <td><i>Mar. 27, 1989</i></td> </tr> <tr> <td>TIME</td> <td><i>9:30</i> <input checked="" type="checkbox"/> A.M. <input type="checkbox"/> P.M.</td> </tr> <tr> <td rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg);">FEES RECEIVED</td> <td>AMOUNT FOR FILING</td> <td>\$ <i>1800.00</i></td> </tr> <tr> <td>DATE</td> <td><i>Feb. 14, 1989</i></td> </tr> <tr> <td></td> <td>AMOUNT FOR CERTIFICATE</td> <td>\$ <i>200.00</i></td> </tr> <tr> <td></td> <td>DATE</td> <td><i>May 21, 1991</i></td> </tr> </table>		FILING	DATE	<i>Mar. 27, 1989</i>	TIME	<i>9:30</i> <input checked="" type="checkbox"/> A.M. <input type="checkbox"/> P.M.	FEES RECEIVED	AMOUNT FOR FILING	\$ <i>1800.00</i>	DATE	<i>Feb. 14, 1989</i>		AMOUNT FOR CERTIFICATE	\$ <i>200.00</i>		DATE	<i>May 21, 1991</i>
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11. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware		12. DATE OF INCORPORATION Feb. 25, 1975																	
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 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? Sale of product for field trials only. <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 Pulse Marketing Div.</i>		DATE <i>1/6/89</i>																	
SIGNATURE OF APPLICANT		DATE																	

## DRY EDIBLE BEAN

'D81122'

## EXHIBIT A

## Origin and Breeding History

The pinto bean 'D81122' was derived from the following cross pollination in the greenhouse during the winter of 1975-76.

NW 590 x D76093

UI 114 x UI 111

## Details of selection and multiplication:

	<u>Year</u>	<u>Generation</u>	<u>Field Number</u>	<u>Bulk Harvest</u>	<u>No. of Single Plant Selections</u>
Winter	1976	F <sub>1</sub>	GH 037	2 oz.	
Summer	1977	F <sub>2</sub>	D77-2056	2 lbs.	
Summer	1978	F <sub>3</sub>	D78-1715		1
Summer	1979	F <sub>4</sub>	D79-1091		2
Summer	1980	F <sub>5</sub>	D80-911	2 lbs. 8 oz.	2
Summer	1981	F <sub>6</sub>	D81-2903	22 lbs.	
Summer	1982	F <sub>7</sub>	D82-3412	74 lbs.	
Summer	1983	F <sub>8</sub>	D83-3907	704 lbs.	
Summer	1984	F <sub>9</sub>	D84-3145	8,820 lbs.	

The variety 'D81122' was stabilized in the F<sub>5</sub> generation. 'D81122' has been observed to be stable and uniform for four (4) generations in the field since 1984. We have made no observations of variants in the populations. This variety will be maintained by the procedure of pure line selection for seed stock.

## DRY EDIBLE BEAN

'D81122'

## EXHIBIT B

## Novelty Statement

Our variety 'D81122' is most nearly like the variety 'UI 114', however, it differs in the following areas:

'D81122' has a Type IIA plant habit, whereas 'UI 114' has a Type III plant habit.

'D81122' is more upright than 'UI 114', and is shorter in total plant height.

'D81122' matures in 88 days in Twin Falls, Idaho, compared to 90 days for 'UI 114' for the years 1981-1988.

**OBJECTIVE DESCRIPTION OF VARIETY**  
 Dry Edible Bean (*Phaseolus vulgaris* L.)

NAME OF APPLICANT(S) <b>ROGERS BROTHERS SEED COMPANY</b>	EXPERIMENTAL NAME <b>D81122</b>	VARIETY NAME <b>FLINT</b>
ADDRESS (Street and No. or R.F.D. No., City, State, ZIP) <b>P.O. Box 4727 Boise, Idaho 83711</b>		<b>FOR OFFICIAL USE ONLY</b>
		PVPO NO. <b>8900128</b>

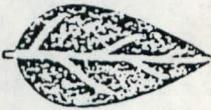
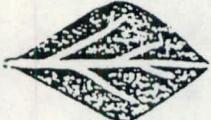
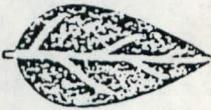
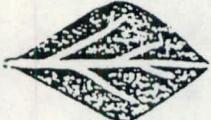
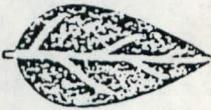
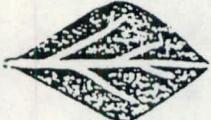
Provide data for all characters unless indicated as "optional." Place numbers in the boxes for the characters or numerical values which best describe this variety. Measured data should be the mean of an appropriate number of well spaced (15-20 cm) plants. The Royal Horticulture Society or any recognized color standard may be used to determine plant color. Designate the color system used below.

COLOR SYSTEM USED	LOCATION OF THE TEST(S) TO EVALUATE THIS VARIETY
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<b>1. MARKET CLASS</b>  <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%; text-align: center; border: 1px solid black;">4</td> <td style="width:60%;"><b>CLASS</b></td> <td style="width:30%;"><b>CHECK</b></td> </tr> <tr> <td></td> <td>1 = Navy (Pea)</td> <td>Seafarer</td> </tr> <tr> <td></td> <td>2 = Small White</td> <td>Aurora</td> </tr> <tr> <td></td> <td>3 = Black</td> <td>Midnight</td> </tr> <tr> <td></td> <td>4 = Pinto</td> <td>UI-114</td> </tr> <tr> <td></td> <td>5 = Great Northern</td> <td>UI-59</td> </tr> <tr> <td></td> <td>6 = Small Red</td> <td>NW-59</td> </tr> <tr> <td></td> <td>7 = Pink</td> <td>Viva</td> </tr> <tr> <td></td> <td>8 = Cranberry</td> <td>UI-50</td> </tr> <tr> <td></td> <td>9 = Dark Red Kidney</td> <td>Montcalm</td> </tr> <tr> <td></td> <td>10 = Light Red Kidney</td> <td>Redcloud</td> </tr> <tr> <td></td> <td>11 = Yellow Eye</td> <td>Steuben</td> </tr> <tr> <td></td> <td>12 = Other (specify)</td> <td></td> </tr> </table>	4	<b>CLASS</b>	<b>CHECK</b>		1 = Navy (Pea)	Seafarer		2 = Small White	Aurora		3 = Black	Midnight		4 = Pinto	UI-114		5 = Great Northern	UI-59		6 = Small Red	NW-59		7 = Pink	Viva		8 = Cranberry	UI-50		9 = Dark Red Kidney	Montcalm		10 = Light Red Kidney	Redcloud		11 = Yellow Eye	Steuben		12 = Other (specify)		<b>2. MATURITY</b>  <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%; text-align: center; border: 1px solid black;">1</td> <td colspan="2">1 = Early (80-90 days); 2 = Medium (90-100 days); 3 = Late (&gt;100 days)</td> </tr> <tr> <td style="width:10%; text-align: center; border: 1px solid black;">8</td> <td style="width:10%; text-align: center; border: 1px solid black;">8</td> <td>Days from planting to harvest maturity <b>90%</b> pods dry &amp; buckskin 8 year average.</td> </tr> <tr> <td style="width:10%; text-align: center; border: 1px solid black;">1</td> <td style="width:10%; text-align: center; border: 1px solid black;">4</td> <td style="width:10%; text-align: center; border: 1px solid black;">5</td> <td style="width:10%; text-align: center; border: 1px solid black;">6</td> <td>Heat units from planting to harvest maturity (optional). Specify base temperature used: <u>50</u> 8 year average</td> </tr> <tr> <td style="width:10%; text-align: center; border: 1px solid black;">8</td> <td style="width:10%; text-align: center; border: 1px solid black;">9</td> <td colspan="3">Days from planting to harvest maturity of check variety (use check appropriate to market class shown in item 1)</td> </tr> </table>	1	1 = Early (80-90 days); 2 = Medium (90-100 days); 3 = Late (>100 days)		8	8	Days from planting to harvest maturity <b>90%</b> pods dry & buckskin 8 year average.	1	4	5	6	Heat units from planting to harvest maturity (optional). Specify base temperature used: <u>50</u> 8 year average	8	9	Days from planting to harvest maturity of check variety (use check appropriate to market class shown in item 1)		
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**4. LEAFLET MORPHOLOGY** (Use terminal leaflet of a fully expanded trifoliolate)

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5. FLOWER COLOR AND DAYS TO BLOOM

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

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

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

Days to <sup>1st</sup> 50% bloom 43.25 (8 year average)

6. POD MORPHOLOGY (Green pod morphology optional)

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

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

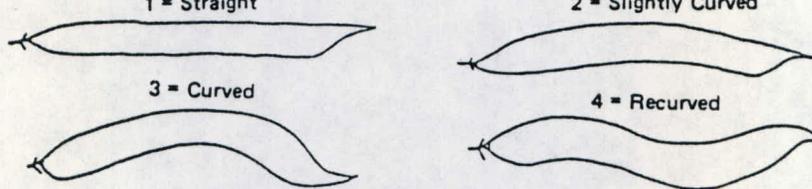
COLOR MODIFIER: 1 = Light; 2 = Light Medium; 3 = Medium; 4 = Medium Dark; 5 = Dark

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

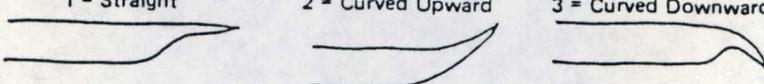
CROSS SECTION SHAPE: 1 = Flat 2 = Pear 3 = Round 4 = Figure Eight



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



POD BEAK ORIENTATION: 1 = Straight 2 = Curved Upward 3 = Curved Downward 4 = Variable



Average beak length, in cm. \_\_\_\_\_

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

Average number of seeds per pod  $\bar{x}$  20 pods

7. SEED COLOR

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

1 = Monochrome; 2 = Polychrome

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

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

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

HILAR RING: 1 = Absent; 2 = Present

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

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



Dry seed weight in g/100g seeds (adjusted to 12% moisture) 35.19 g ( $\bar{x}$  8 year)

9. ANTHOCYANIN PIGMENTATION

1 = ABSENT  
2 = PRESENT

<input checked="" type="checkbox"/> Flowers	<input checked="" type="checkbox"/> Stems	<input checked="" type="checkbox"/> Pods	<input 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, Fuscouc 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 phaseoli ; Race(s) NY 15, BV, & NL-3

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

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

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

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

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

11. KNOWN INSECT/NAMATODE 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

<input checked="" type="checkbox"/> Heat	<input type="checkbox"/> Cold	<input checked="" type="checkbox"/> Drought	<input type="checkbox"/> Air Pollution
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Nutrient toxicity or deficiency (specify nutrient) \_\_\_\_\_

Other \_\_\_\_\_

13. COMMENTS

## DRY EDIBLE BEAN

'D81122'

## EXHIBIT D

## Botanical Description

'D81122' is an early maturing, upright variety and has long well filled pods. It has a Type IIA plant habit.

'D81122' matures in 88 days in Twin Falls, Idaho, which is two (2) days earlier than 'UI 114' (maturity defined as 90% of pods turned from green to buckskin).

'D81122' has resistance to the BV, NY<sub>15</sub>, and NL-3 strains of Bean Common Mosaic virus.

'D81122' has an average seed size of 1,290 seeds per pound which is about the same as 'UI 114'.

8900128

EXHIBIT E

FLINT

Variety Flint was developed by Ronald G. 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 variety are retained by the employees.

State of Delaware  
Office of the Secretary of State

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PAGE 1

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

0810041 8320

AUTHENTICATION: 7120759

944080001

DATE: 05-16-94

9

**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

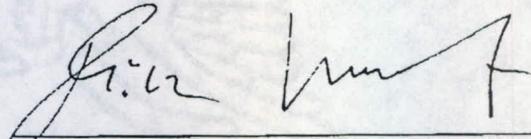
ROGERS NK SEED CO.

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  
971211767 - 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.

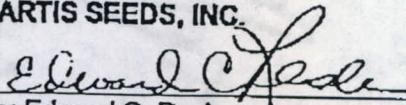
**FIFTH:** That the executed Agreement and Plan of Merger is on file at the principal place of business of the surviving corporation, the address of which is 7500 Olson Memorial Highway, Golden Valley, MN 55427.

**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