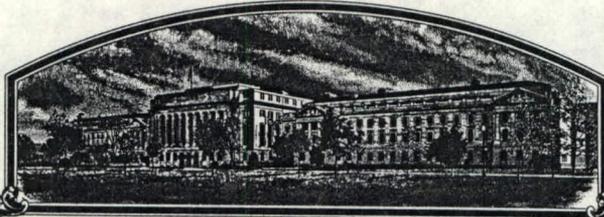


No.

840028



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, 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 (P.L. 55-482, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'Sapphire'

*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 30th day of April in
the year of our Lord one thousand nine
hundred and eighty-six.*

Attest

Kenneth F. ...
Commissioner
Plant Variety Protection
Agricultural Marketing Service

Richard E. Lyng
Secretary of Agriculture



1787

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

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

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY D-77125		1b. VARIETY NAME SAPPHIRE		FOR OFFICIAL USE ONLY PV NUMBER 8400028	
2. KIND NAME Dry Edible Bean		3. GENUS AND SPECIES NAME Phaseolus vulgaris		FILING DATE 12/29/83	TIME 2:30 P.M.
4. FAMILY NAME (BOTANICAL) Leguminosae		5. DATE OF DETERMINATION Summer 1980		FEE RECEIVED \$ 1,000 \$ 500	DATE 12/29/83 4/4/86
6. NAME OF APPLICANT(S) ROGERS BROTHERS SEED COMPANY		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P. O. Box 80 Idaho Falls, ID 83402		8. TELEPHONE AREA CODE AND NUMBER (208) 522-0143	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation			10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Delaware		11. DATE OF INCORPORATION Feb. 25, 1975
12. NAME AND MAILING 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, ID 83402					

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:
- 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
 - 13B. Exhibit B, Novelty Statement.
 - 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
 - 13D. Exhibit D, Additional Description of the Variety.

14a. 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). (If "Yes," answer 14B and 14C below.) YES NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? YES NO

14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? FOUNDATION REGISTERED CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? YES NO (If "Yes," give name of countries and dates.)

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? YES NO (If "Yes," give name of countries and dates.)

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? YES NO

17. The applicant(s) declare(s) that a viable sample of basic seed 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 Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

Dec. 15, 1983
 (DATE)

Charles Green North American Sales Manager
 (SIGNATURE OF APPLICANT)

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. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, 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

- 5 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.
- 13a 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.
- 13b 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.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d 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.
- 14a 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.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

DEC 29 1983

DRY EDIBLE BEAN

"SAPPHIRE"

EXHIBIT A

ORIGIN AND BREEDING HISTORY

The Great Northern variety "SAPPHIRE" (tested as D77125) was derived from the following cross pollination in the greenhouse during the Winter of 1972-73.

US 1140 X Tara

Following are details of selection and multiplication.

	<u>Year</u>	<u>Generation</u>	<u>Field Number</u>	<u>Bulk Harvest</u>	<u>Number Single Plant Selections</u>
Winter	1972-73	f ₁	Greenhouse	3 oz.	
Summer	1973	f ₂	D73-106	3# 2 oz.	
Summer	1974	f ₃	D74-087		4
Summer	1975	f ₄	D75-202		2
Summer	1976	f ₅	D76-1128		1
Summer	1977	f ₆	D77-569		1
Winter	1977-78	f ₇	Greenhouse	3 oz.	
Summer	1978	f ₈	D78-148	1# 8 oz.	
Summer	1979	f ₉	D79-114		2
Summer	1980	f ₁₀	D80-413	2#10 oz.	
Summer	1981	f ₁₁	D81-2935	14#	
Summer	1982	f ₁₂	D82-3442	426#	

*see the rest of Exhibit A - last paragraph on end of Exhibit D.
CMB*

8400028

THE LIBRARY OF THE UNIVERSITY OF TORONTO

LIBRARY

1000 UNIVERSITY AVENUE

The first edition of the "Handbook" (listed as D.V.10) was derived from the original data collected in the programme during the winter of 1972-73.

IN 1980 A YEAR

Following are a list of selection and multiplication

Year	Selection	Field Number	Harvest	Other Selections
1972-73	1	Greenhouse	1972-73	
1973	2	973-100	1973	
1974	3	974-000		
1975	4	975-001		
1976	5	976-100		
1977	6	977-000		
1978	7	Greenhouse		
1979	8	979-100		
1980	9	980-111		
1981	10	981-000		
1982	11	982-000		
1983	12	983-000		

DEC 29 1983

DRY EDIBLE BEAN
"SAPPHIRE"

8400028

EXHIBIT B

NOVELTY STATEMENT

The Great Northern variety "SAPPHIRE" is most nearly like the variety 'Tara'. SAPPHIRE differs, however, from 'Tara' in that it has darker foliage than Tara and SAPPHIRE is an average 3.5 days earlier in maturity than 'Tara'. Maturity information is listed below.

Maturity Dates - Twin Falls, Idaho

<u>Year</u>	<u>SAPPHIRE</u>	<u>Tara</u>
1983	8/28	8/31
1982	9/5	9/7
1981	8/24	8/25
1979	8/27	9/4

Maturity* - Scottsbluff, Nebraska 1981

D 77125 = 5.2 Tara = 4.7

* 0 = no pods

10 = 50% pods mature and turning buckskin.

8400023

DRY MATTER

EXHIBIT B

INVESTIGATION

The Great Northern variety "SABRINA" is most nearly like the variety "Tara".
"SABRINA" differs, however, from "Tara" in that it has darker foliage than Tara
and "SABRINA" is an average 1.5 ears earlier in maturity than "Tara". Maturity
information is listed below.

Maturity Dates - Twin Falls, Idaho

Year	SABRINE	Tara
1933	8/28	8/31
1932	8/25	8/27
1931	8/24	8/25
1930	8/27	8/28

Maturity - Northside, Nebraska 1931

8/25 = 5.0 Tara = 4.7

0 = no pods

10 = 50% pods mature and exceeding bushels.

DEC 29 1983

Great Northern 'Sapphire'
 Exhibit B Supplement Continued
 February 1986

University Of Nebraska
 Scottsbluff, Nebraska

Days To Maturity

	<u>'Sapphire'</u>	<u>'Tara'</u>	<u>'Sapphire'</u> <u>Days Earlier</u> <u>Than 'Tara'</u>
1985	91	98	7
1984	85	92	7
1983	84	89	5
1982	96	106	10
1981	5.2*	4.7*	
1980	<u>95</u>	<u>102</u>	<u>7</u>
	90.2	97.4	7.2

*0 = No Mature Pods 10 = 50% Mature Pods

Not Included In Analysis, But Shows That 'Sapphire'
 Had A Higher Maturity Rating Than 'Tara'.

The T test gives us a ninety five percent confidence interval
 showing that we have this confidence that 'Sapphire' is between
 5.4 and 9.0 days earlier than 'Tara'.

RECEIVED

MAR 3 1986



U. S. DEPARTMENT

OF AGRICULTURE

AMS

PVPO

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) ROGERS BROTHERS SEED COMPANY	FOR OFFICIAL USE ONLY
	PVPO NUMBER 8400028
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P. O. Box 80 Idaho Falls, ID 83402	VARIETY NAME OR TEMPORARY DESIGNATION SAPPHIRE

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: _____ . The location of test area is Twin Falls Idaho . Please answer questions appropriate for your variety if the information is available.

1. TYPE:

1 = Field (dry-edible) 2 = Garden

2. MARKET MATURITY: 5 Year Average

Days to edible pods Days to green shells

Days to dry seeds physiological maturity (90% pods buckskin)

Heat units to edible pods Heat units to green shells

Heat units to dry seeds

No. days earlier than }
 Same as .. }
 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)
 Great Northern UI 59

No. days later than }

3. PLANT:

1 = Determinate 2 = Indeterminate

cm height 16"

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

cm wider than }

Main stalk: 1 = brittle 2 = wirey 1 = stout 2 = thin

Branching habit:
 1 = compact 2 = open

5

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

2 1 = truncate ends 2 = rounded ends

2 9 gm/100 seed

gm/100 seed lighter than

gm/100 seed same as

2 gm/100 seed heavier than 8

comparison variety from page one

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):

0 Anthracnose (specify race below)

0 Fuscous 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)

BV 1 and NY 15

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

2 Other (specify below)
Common blight isolates XPEK11,
XP816 + XPU2 from Nebraska

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

Other (specify below)

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

0 Heat

0 Cold

0 Drought

0 Air pollution

13. COMMENTS:

DRY EDIBLE BEAN
"SAPPHIRE"

8400028

EXHIBIT D

BOTANICAL DESCRIPTION

Great Northern "SAPPHIRE" is a vigorous vine type plant with fairly dense foliage, but with slightly less foliage than Tara, however, more than UI59. In Twin Falls, Idaho 'SAPPHIRE' matures in 89 days which compares to 88 days for UI59. 'SAPPHIRE' has resistance to the BV₁ and NY₁₅ strains of bean common mosaic virus as well as tolerance to both common and halo blight. In Southern Idaho 'SAPPHIRE' has out yielded UI59 by an average of 370 lbs./acre over the past 5 years.

'SAPPHIRE' is a special use variety suitable for lighter and sloping soils where many varieties experience difficulty with too little vine growth. The seed size of 'SAPPHIRE' is the same as that of UI59 at 1500 seeds/lb. 'SAPPHIRE' has surpassed in yield all Great Northern varieties tested at the Panhandle Station in Scottsbluf, Nebraska, for both the 1981 and 1982 growing seasons.

Stock D82-3442 is being increased to commercial sized quantities. This variety will be maintained through the procedure of pureline selection for stock seed.

Part of Exhibit A. The variety "SAPPHIRE" was stabilized in the f₁₀ generation. "SAPPHIRE" has been observed to be stable and uniform for 3 generations in the field since 1979. We have made no observations of any variants in the population.

8460028

DET. LISA WEAVER

"SAPPHIRE"

PARCEL 1

STATISTICAL DESCRIPTION

Great Northern "Sapphire" is a vigorous vine type plant with fairly dense foliage, but with slightly less foliage than LARA, however, more than LARA. In late fall, Idaho "SAPPHIRE" carries in 82 days which compares to 88 days for LARA. "SAPPHIRE" has resistance to the BVV and WY viruses of bean common mosaic virus as well as tolerance to foot rot and mildew. In southern Idaho, "SAPPHIRE" has not yielded 100% by an average of 370 lbs./acre over the past 3 years.

"SAPPHIRE" as a special use variety suitable for tip-top and dipping soils. It has very winter experience. It is only with the 1971 vine growth. The seed size of "SAPPHIRE" is the same as that of LARA at 1500 seeds/lb. "SAPPHIRE" was assessed in yield all Great Northern varieties carried at the University Station in Scarsdale, Michigan, for both the 1974 and 1975 growing seasons.

Stock 882-8442 is being increased for commercial sized quantities. This variety will be reformed through the purchase of particular selection for stock seed.

The variety "SAPPHIRE" was established in the 1st generation. "SAPPHIRE" has been observed to be stable in uniform for 2 generations in the field. Since 1971, we have made no observations of any variation in the population.

DEC 29 1983

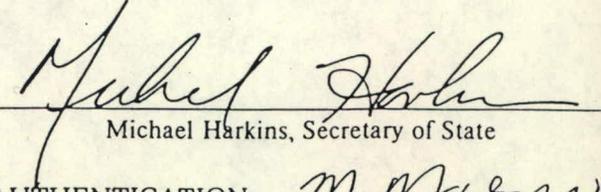
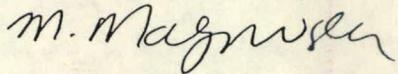
State of Delaware



Office of Secretary of State

I, MICHAEL HARKINS, SECRETARY OF STATE OF THE STATE OF DELAWARE
DO HEREBY CERTIFY THAT "ROGERS BROTHERS SEED COMPANY", FILED A
CERTIFICATE OF AMENDMENT, CHANGING ITS CORPORATE TITLE TO "ROGERS
NK SEED CO.", ON THE TWENTY-SIXTH DAY OF DECEMBER, A.D. 1990, AT 10:01
O'CLOCK A.M.




Michael Harkins, Secretary of State
AUTHENTICATION: 
DATE: 10/08/1991

DO NOT WRITE IN THIS SPACE

AMENDED
STATEMENT AND DESIGNATION
BY
FOREIGN CORPORATION

ROGERS NK SEED CO.

_____, a corporation
organized and existing under the laws of Delaware,
and which is presently qualified for the transaction of intrastate business in the
State of California, makes the following statements and/or designation:

That the name of the corporation has been changed to that hereinabove set forth
and that the name relinquished at the time of such change was _____

ROGERS BROTHERS SEED COMPANY

ROGERS NK SEED CO.
(Name of Corporation)

William B. Albers
(Signature of corporate officer)

William B. Albers, President
(Typed name and title of officer signing)

INSTRUCTIONS:

1. If this Amended Statement shows a change of corporate name, there must be attached to this Amended Statement a certificate of an authorized public official of the state or place of incorporation, that such change of name was made in accordance with the laws of that state or place.
2. For filing this Amended Statement there is a fee of \$15.00.

State of Delaware

PAGE 1

Office of the Secretary of State

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.



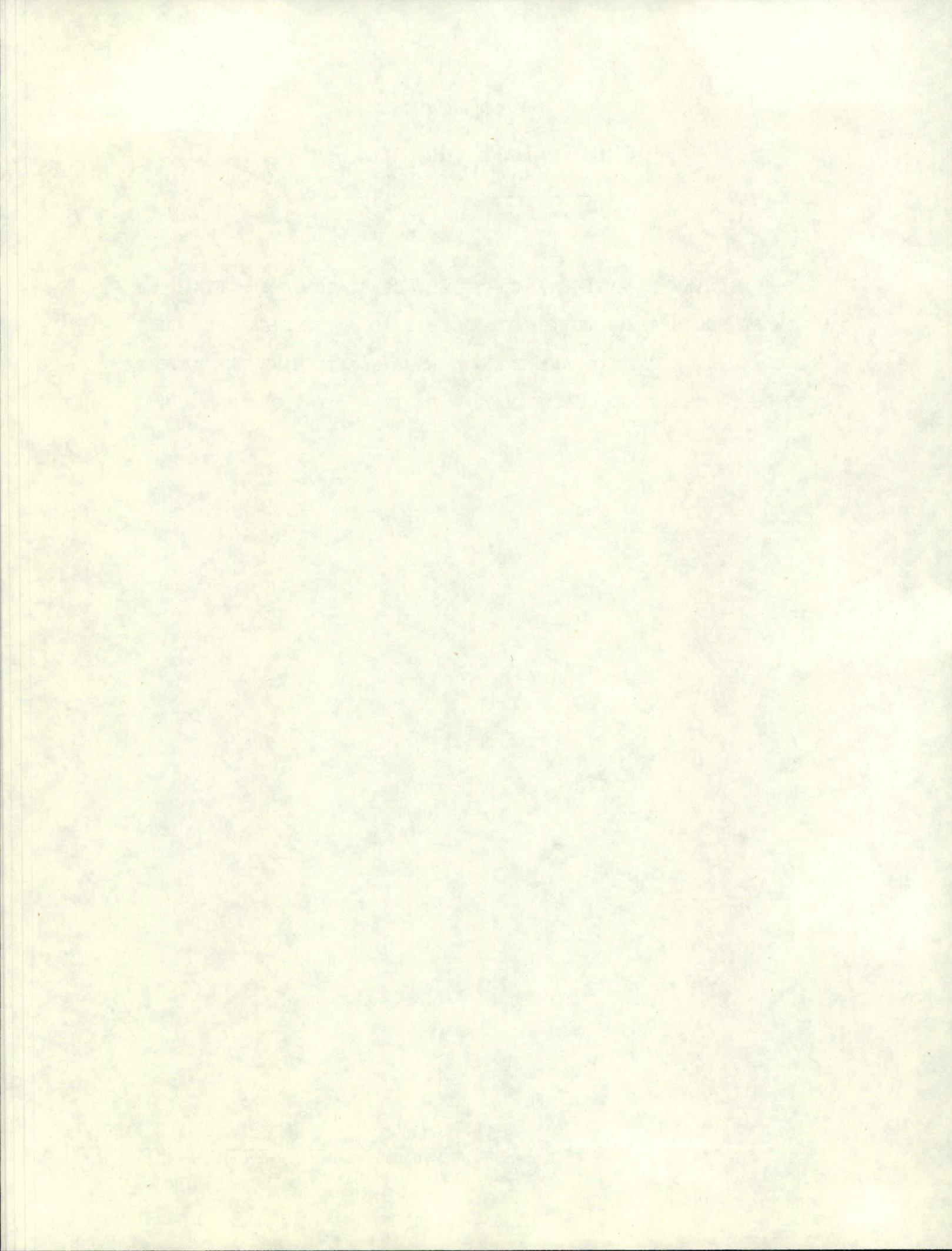
William T. Quillen

William T. Quillen, Secretary of State

0810041 8320

AUTHENTICATION: 7120759

DATE: 05 16 94



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.

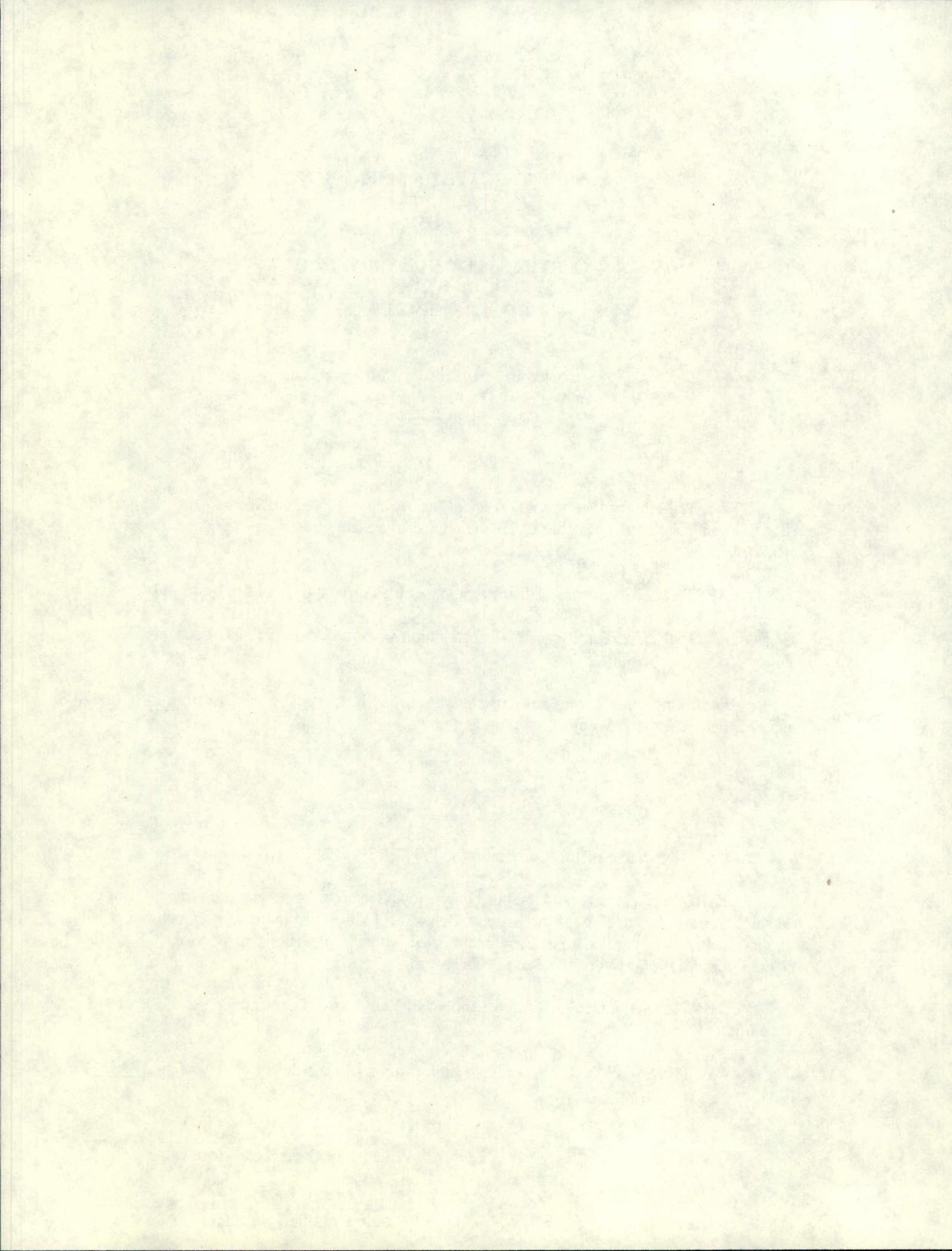
THIRD: Such amendment has been duly adopted in accordance with the provisions of the General Corporation Law of the State of Delaware, by the unanimous written consent of all of the stockholders entitled to vote in accordance with the provisions of Section 228 of the General Corporation Law of the State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

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

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

Willem van Overschot
Willem van Overschot, President

Richard B. Geller
Richard B. Geller, Secretary



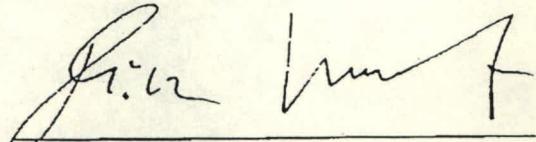
ROGERS NK SEED CO.

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.**

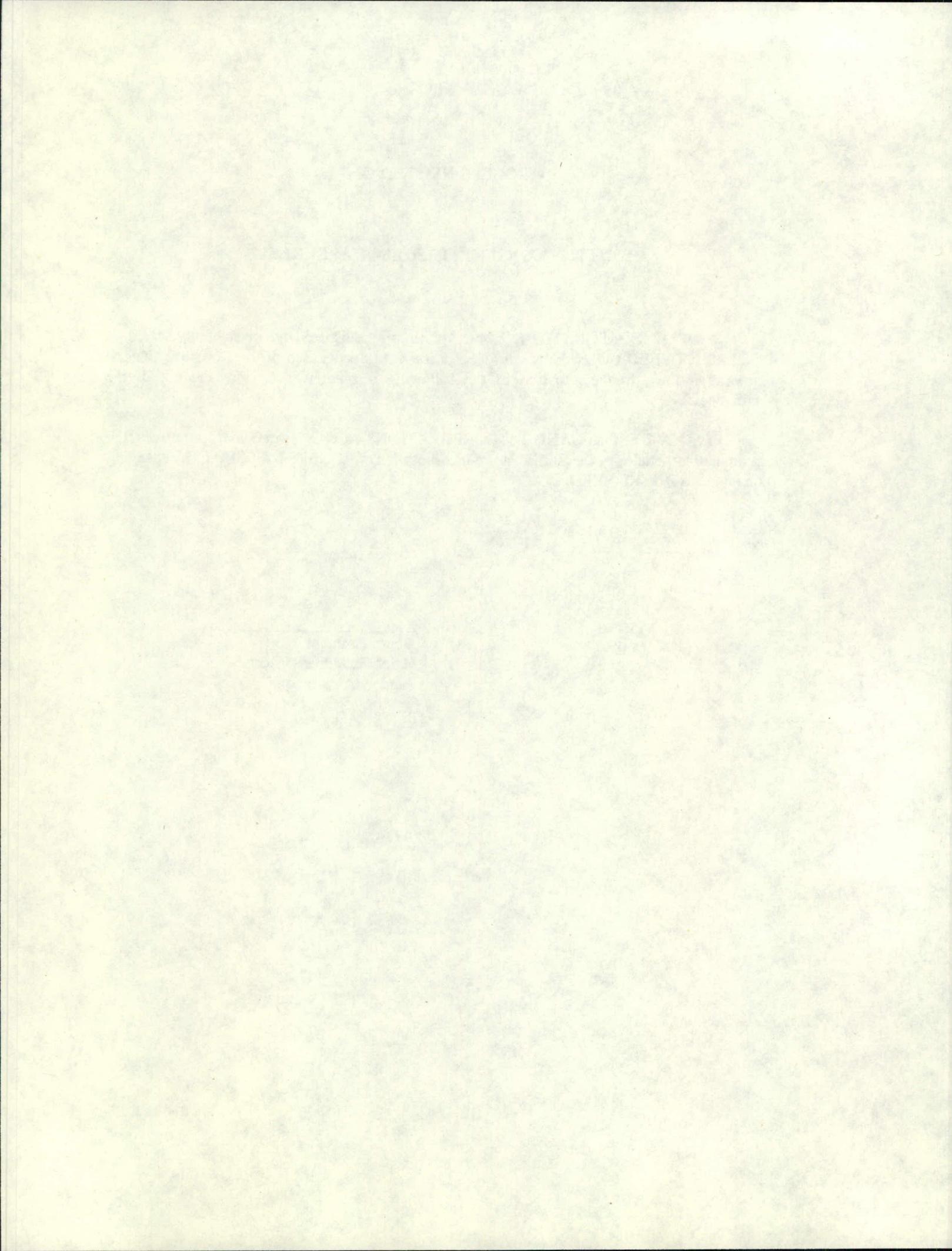
Dated: April 22, 1994



Heinz P. Imhof,
Chief Executive Officer
Sandoz Corporation

00 10 31

01



ROGERS NK SEED CO.

RESOLUTION

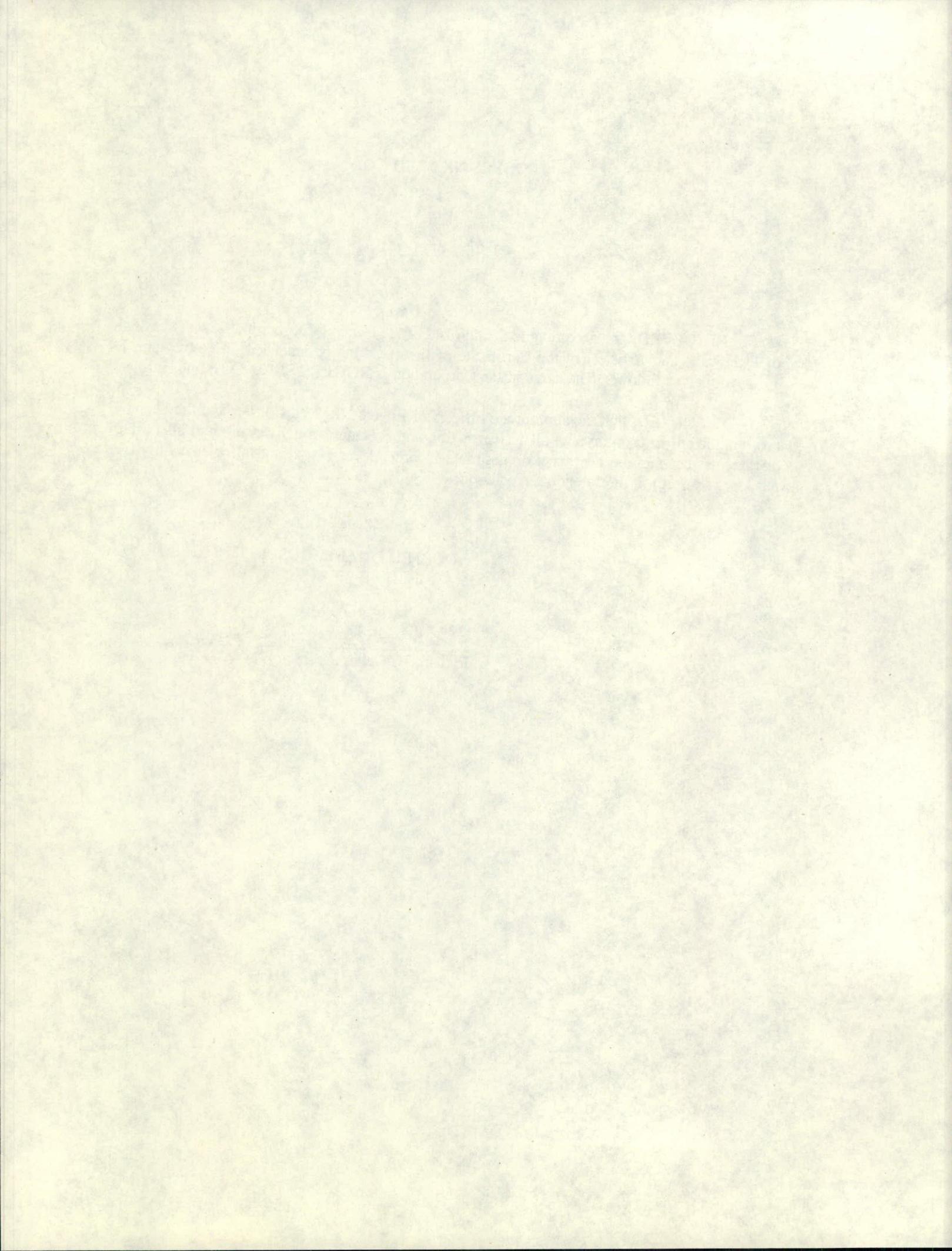
RESOLVED, that according to Section 242 of the General Corporation Law of the State of Delaware, that Article I of the Certificate of Incorporation be amended, effective June 1, 1994, to read as follows: The name of the Corporation is **ROGERS SEED CO.**; and, further,

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:

NAME	STATE OF INCORPORATION
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.

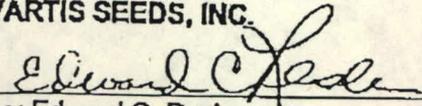
FIFTH: That the executed Agreement and Plan of Merger is on file at the principal place of business of the surviving corporation, the address of which is 7500 Olson Memorial Highway, Golden Valley, MN 55427.

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

