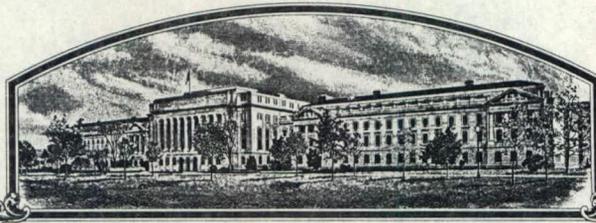


No.



8300074

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Agrigenetics Corporation  
Vegetable Products Group**  
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 (7 U.S.C. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA

'Sunset'



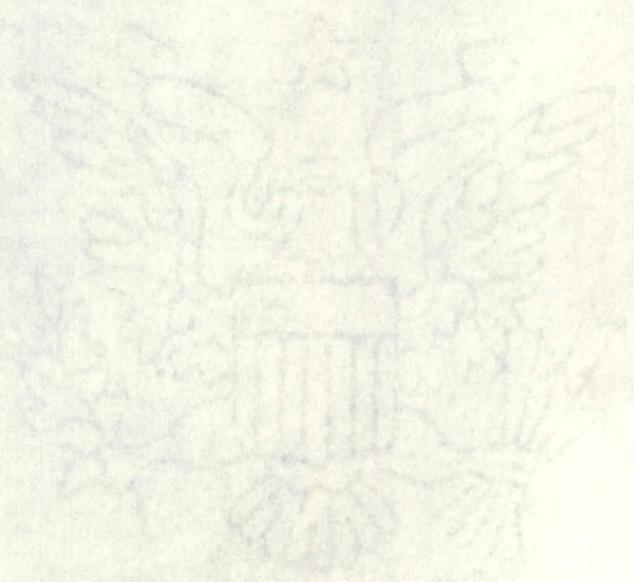
In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 30th day of April in the year of our Lord one thousand nine hundred and eighty-four.

Attest:

*Kenneth A. Cowan*  
Commissioner  
Plant Variety Protection Office  
Gain Division  
Agricultural Marketing Service

*John R. Block*

Secretary of Agriculture



1988

**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) Agrigenetics Corp., Vegetable Products Group		2. TEMPORARY DESIGNATION AVX 326	3. VARIETY NAME <b>SUNSET</b>
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 1120-220th Street West Farmington, MN 55024		5. PHONE (Include area code) (612) 463-4646	FOR OFFICIAL USE ONLY PVPO NUMBER <b>8300074</b>
6. GENUS AND SPECIES NAME Pisum sativum	7. FAMILY NAME (Botanical) Leguminosae		FILING DATE 2/28/83 TIME 2:30 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.
8. KIND NAME Peas	9. DATE OF DETERMINATION Autum 1980 Spring 1981		FEE RECEIVED AMOUNT FOR FILING \$ 1,000 DATE 2/28/83 AMOUNT FOR CERTIFICATE \$ 500.00 DATE 3/26/84
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation			12. DATE OF INCORPORATION 1/9/81
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  
 Keith W. Zary, Pea & Bean Breeder & Peter A. Bonucci, Research Manager  
 Agrigenetics Corp., Vegetable Products Group  
 1120-220th Street West  
 Farmington, Minnesota 55024

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? <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) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES?  
 Yes (If "Yes," give names of countries and dates)  
 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 <i>Keith W. Zary</i> Pea and Bean Breeder	DATE Jan 31, 1983
SIGNATURE OF APPLICANT <i>Peter A. Bonucci</i> Research Manager	DATE Jan 21, 1983

NOTE: THERE HAS BEEN A CHANGE IN THE FEES.



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INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$1,000 fee (\$500 filing fee and \$500 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 (as amended November 8, 1982).] Retrain 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.

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## APPLICATION FOR PLANT VARIETY PROTECTION

Peas - &lt;AVX 326 &gt; 'SUNSET'

Exhibit 14(a)

## Origin and Breeding History

1. Parentage: Surprise x Pee Wee  
Breeding Method - Single cross 1973
2. Selection: Selection was made on a single plant basis until the 5th generation, after which bulk selection was practiced.
3. Variants: Some single podded determinate types occurred in early generations.
4. Evidence of Uniformity & Stability: See attached sheets.

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## Exhibit 14(a)4. Evidence of Uniformity and Stability

In extensive drill seeded <sup>'SUNSET'</sup> trials, grown at Farmington, Mn. during 1981 and 1982, <AVX 326> was shown to be distinct, uniform and stable. A summary of part of the data collected in these trials is presented below.

Block <sup>1</sup> /Character	Year 1981					
		1	2	3	4	5
Stem length (cm)	$\bar{x}$	62.3	64.1	61.8	68.2	63.4
	SD	3.8	4.2	5.1	4.5	3.7
No. of first fertile node	$\bar{x}$	9.3	9.4	9.6	9.2	9.1
	SD	0.3	0.2	0.8	0.4	0.3
Pod length (mm)	$\bar{x}$	50.4	49.3	49.1	52.4	50.7
	SD	5.8	3.6	3.8	6.1	5.2
No. of ovules and seed/pod at first fruiting node	$\bar{x}$	5.8	5.9	5.4	5.6	5.2
	SD	0.3	0.2	0.3	0.4	0.4

1. Each block was randomly chosen from a drill strip 50 meters long and 3 meters wide. Within each 1 meter block, 20 plants were randomly chosen to yield the  $\bar{x}$  and SD presented above.

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## Exhibit 14(a)4 Cont'd.

Block <sup>1</sup> /Character		Year 1982				
		1	2	3	4	5
Stem length (cm)	$\bar{x}$	71.4	73.8	75.2	72.6	71.5
	SD	3.2	5.6	6.1	4.8	5.2
No. of first fertile node	$\bar{x}$	9.7	9.4	9.6	9.2	9.3
	SD	0.4	0.5	0.5	0.7	0.5
Pod length (mm)	$\bar{x}$	53.8	50.1	54.2	51.6	50.8
	SD	3.6	2.4	4.5	2.7	3.2
No. of ovules and seeds/pod at first fruiting node	$\bar{x}$	5.2	5.6	5.3	5.8	5.7
	SD	0.4	0.3	0.3	0.2	0.4

1. Each block was randomly chosen from a drill strip 50 by 3 meters. Within each block (1 meter square), 20 plants were randomly chosen to yield the  $\bar{x}$  and SD given above.

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## Exhibit 14(b) Summary Statement of Novelty

'SUNSET'

<AVX 326> is an early sweet canning pea. It is novel and may be distinguished from all other early sweet canners because of its ability to produce and set single, double and triple flowers. To our knowledge, no other early sweet canner can consistently set double and triple pods at the first and second fruiting nodes.

'SUNSET'

<AVX 326> most closely resembles that class of peas known as the 'Alaska sweets' or 'Alsweets'. Of this class, to our knowledge, the variety 'Dane' (Brotherton Seed Company) most closely resembles <AVX 326>. 'SUNSET', 'SUNSET'

<AVX 326> can be distinguished from 'Dane' in the following ways:

1. Days to maturity or Heat Units are greater for <AVX 326> than 'Dane'.
2. Sieve size of fresh peas is larger for <AVX 326> than 'Dane'.
3. <AVX 326> produced more flowers at the first two fruiting nodes than 'Dane'.

Data to support these statements is presented below.

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## Exhibit 14(b)

Days to maturity (TD=105) of the pea varieties <sup>'SUNSET'</sup> AVX 326 and 'Dane' during two growing seasons and two years at Farmington, MN.

Year	Season <sup>1.</sup>	Days to Maturity (TD=105) <sup>2.</sup>			t(df=48)
		326	Dane	t(.01) <sup>3.</sup>	
1981	Early Spring	61	58	2.68	6.83*
	Late Spring	59	56	2.68	3.91*
1982	Early Spring	62	58	2.68	11.42*
	Late Spring	60	57	2.68	7.81*

1. Early spring plantings were April 15, 1981 and April 27, 1982. Late spring plantings were April 27, 1981 and May 3, 1982.

2. Days to maturity were based on composite pea samples running at 105 tenderometer. Five random one meter square plots of each line were harvested from each of 5 replications to arrive at relative days to maturity.

3. t values taken from Steele and Torre, Principles and Procedures of Statistics p. 433.

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## Exhibit 14(b)

Sieve size distribution for the pea varieties 'Dane' and  
 <AVX 326> (Farmington, MN).  
 'SUNSET'

Variety	Year	TD	Sieve Size <sup>1., 2.</sup>			
			2	3	4	5
<AVX 326> 'SUNSET'	1981	107	.21	.37	.40	.02
	1982	103	.12	.43	.45	.00
$\bar{x}$ (across years)			.165	.40	.425	.01
Dane	1981	108	.35	.46	.19	.00
	1982	106	.31	.49	.20	.00
$\bar{x}$ (across years)			.33	.475	.195	.00

1. Sieve size 2 = 10/32", Sieve 3 = 11/32", Sieve 4 = 12/32",  
 Sieve 5 = 13/32".

2. A sieve size index can be computed by multiplying sieve size  
 by percentage in that size, summing for all sizes present  
 and dividing by 100.

Using  $\bar{x}$  across years, sieve size index for the respective  
 varieties are:

AVX 326:	.165 x 2 = .33	Dane:	.33 x 2 = .66
	.40 x 3 = 1.20		.475 x 3 = 1.425
	.425 x 4 = 1.70		.195 x 4 = 0.78
	.01 x 5 = 0.05		
	3.28		2.865

These differences are consistent and pronounced. See Figure 1.  
 for graphic analysis.

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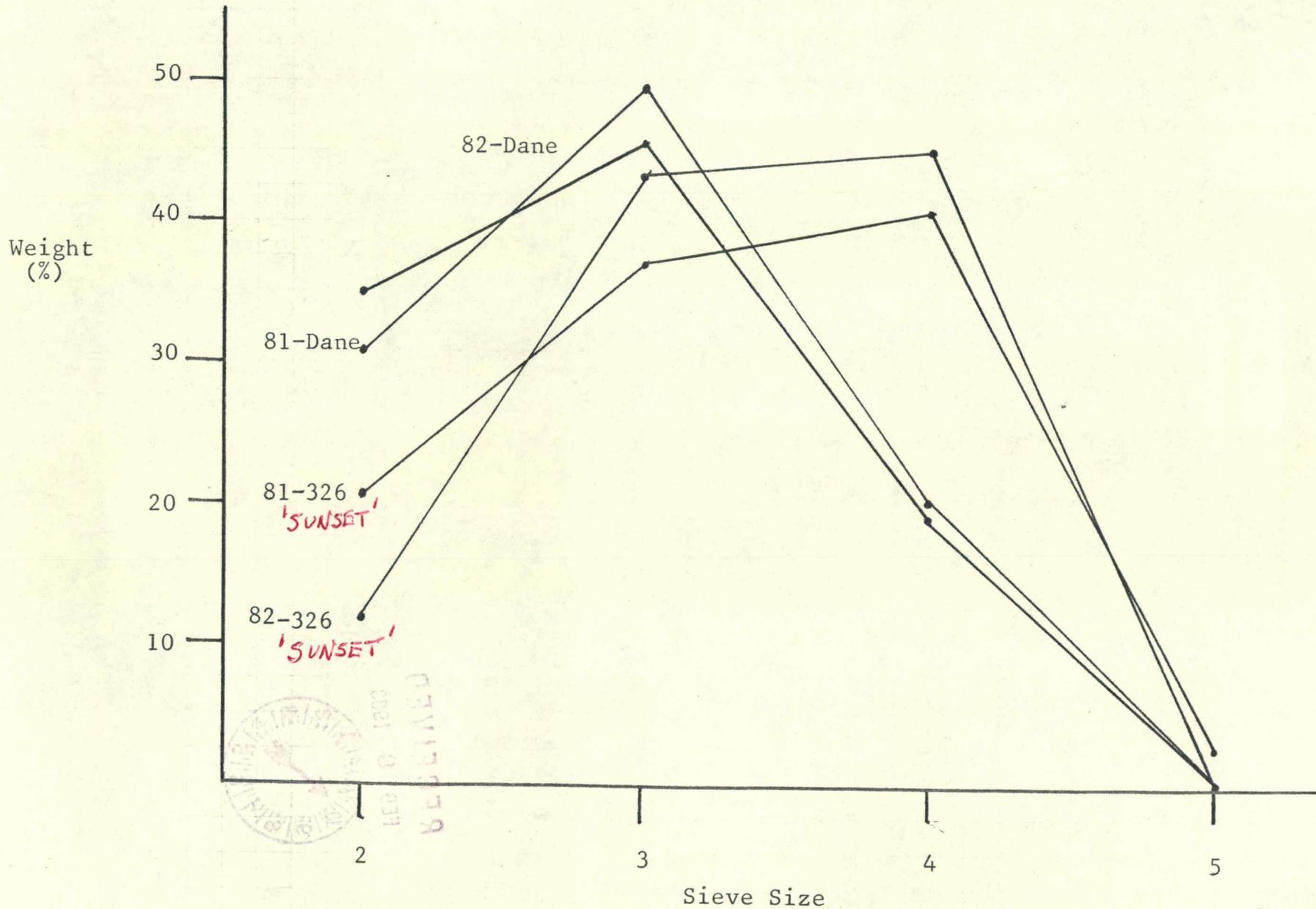
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Figure 1.

A Comparison of Weight<sup>1</sup> vrs. Sieve Size for the Pea Varieties <AVX 326> and 'Dane'  
'SUNSET'



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1. All values of weight of peas harvested were converted to percent

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## Exhibit 14(b)

Comparison of number of flowers at the first <sup>'SUNSET'</sup> and second flowering nodes for the pea varieties ~~AVX 326~~ and 'Dane' during two growing seasons and two years at Farmington, MN.

Year	Season <sup>1.</sup>	Node	Number of Flowers <sup>2.</sup>		t(.05) <sup>3.</sup>	t(df=98)
			<del>AVX 326</del> 'SUNSET'	Dane		
1981	Early Spring	9	2.70	1.84	2.64	4.32*
		10	1.93	1.65	2.64	1.74
	Late Spring	9	2.67	1.97	2.64	2.19*
		10	1.72	1.43	2.64	1.96
1982	Early Spring	9	2.81	1.92	2.64	5.32*
		10	2.72	1.94	2.64	3.81*
	Late Spring	9	2.61	1.87	2.64	6.38*
		10	2.42	1.78	2.64	1.80

1. Early spring plantings were April 15, 1981 and April 27, 1982. Late spring plantings were April 27, 1981 and May 3, 1982.
2. Flower number was calculated by selecting 10 random plants from each of 5 replications for each variety. Flower numbers were counted at each of the first two fruiting nodes (9th and 10th).
3. t values taken from Steele and Torre, Principles and Procedures of Statistics p.433.



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UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION  
NATIONAL AGRICULTURAL LIBRARY  
BELTSVILLE, MARYLAND 20705  
OBJECTIVE DESCRIPTION OF VARIETY  
PEA (PISUM SATIVUM)

EXHIBIT C  
(Pea)

NAME OF APPLICANT(S) Agrigenetics Corp., Vegetable Products Group	VARIETY NAME OR TEMPORARY DESIGNATION <AVX 326> SUNSET
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) 1120-220th Street West Farmington, MN 55024	FOR OFFICIAL USE ONLY PVPO NUMBER 8300074

Place the appropriate number that describes the varietal character in the boxes below.  
Place a zero in first box (e.g.  or ) when number is either 99 or less or 9 or less.

1. TYPE:

1 = GARDEN    2 = FIELD    3 = EDIBLE-PODDED

2. MATURITY:

Node number of first bloom:     No. of days to processing     Heat Units

No. of days Earlier than     } 1 = ALASKA WR    2 = THOMAS LAXTON WR    3 = LITTLE MARVEL

No. of days Later than     } 4 = WANDO    5 = ALDERMAN WR    6 = AUSTRIAN WINTER

3. PLANT HEIGHT:

CM. HIGH

Cm. Shorter than     } 1 = ALASKA WR    2 = THOMAS LAXTON WR    3 = LITTLE MARVEL

Cm. Taller than     } 4 = WANDO    5 = ALDERMAN WR    6 = AUSTRIAN WINTER

4. VINE:

Habit: 1 = DETERMINATE    2 = INDETERMINATE     Stockiness: 1 = SLIM (Alaska)    3 = HEAVY (Alderman)  
2 = MEDIUM (Thomas Laxton WR)

Branching: 1 = NONE (Alaska)    2 = 1-2 BRANCHES (Little Marvel)    3 = MORE THAN 2 BRANCHES (Dwarf Gray Sugar)

Internodes: 1 = STRAIGHT    2 = ZIG ZAG     NUMBER OF NODES

5. LEAFLETS:

Color: 1 = LIGHT GREEN (Alaska WR)    2 = MED. GREEN (Thomas Laxton WR)    3 = DARK GREEN (Alderman)  
4 = OTHER (Specify)

Wax: 1 = NONE    2 = LIGHT    3 = MEDIUM     1 = NOT MARBLED    2 = MARBLED (Alaska)  
4 = HEAVY

Number of leaflet pairs: 1 = NOT PAIRED    2 = ONE    3 = TWO    4 = THREE OR MORE

6. STIPULES:

1 = LACKING    2 = PRESENT     1 = NOT CLASPING    2 = CLASPING

1 = NOT MARBLED    2 = MARBLED     Size (Compared with leaflets): 1 = SMALLER    2 = SAME  
3 = LARGER

Color (Compared with leaflets): 1 = LIGHTER    2 = SAME    3 = DARKER

7. FLOWER COLOR:

VENATION     STANDARD     WING     KEEL    1 = WHITE    2 = GREENISH    3 = LAVENDER  
4 = PURPLE    5 = RED  
6 = OTHER (Specify)



8300074

## PLANT VARIETY PROTECTION CERTIFICATE

ASSIGNMENT

The Sunseeds Division of Agrigenetics Corporation, a Delaware corporation having a place of business at 3575 Mitchell Lane, Boulder, Colorado 80301 ("Agrigenetics"), represents that it is the owner of the entire right, title and interest in and to the plant variety protection certificates and applications for plant variety protection certificates shown below.

For good and valuable consideration, receipt of which is hereby acknowledged, Agrigenetics hereby assigns to UF Genetics, Inc., a Delaware corporation having a place of business at 9800 Fairview Road, Hollister, California 95024, Agrigenetics' entire right, title and interest in and to the following plant variety protection certificates and applications therefore, together with all Agrigenetics' rights to the sexually reproduced plants that are the subject of such certificates and applications:

I. Registered Certificates

<u>Title</u>	<u>Certificate Number</u>	<u>Date</u>
Empress	7900045	4/15/82
9014	Ap8100174	9/28/81
9293	Ap8100175	9/28/81
9400	Ap8200007	10/22/81
Paymaster	7600058	12/7/77
Lakeland	7600059	1/26/78
Triumph	7600061	12/30/77
Broker's Choice	8100175	4/28/83
Profit Maker	8100174	4/28/83
Shannon	8200007	4/28/83
Sunrise	7100029	6/24/74
Lake Shasta	7100030	8/12/74
Lake Erie	7100031	8/12/74
Rebel	7100033	9/30/74
Lake Superior	7100034	5/21/74
Miami	7100036	2/28/74
Lake Geneva	7200068	5/21/74
Scanion	7300001	11/15/74
Picoverde	7300016	4/10/73
Raider	7400069	7/26/74



Lake Largo	7400104	9/30/74
Lake Seneca	7500096	11/24/75
Chaparral	7600052	5/16/77
Costaverde	7600053	8/24/77
Gustoverde	7600054	8/24/77
Mesaverde	7600055	5/31/77
Conquest	7700058	7/26/77
Commander	7900067	7/26/79
Keygold	8000111	10/16/80
Snapbean, Exp. 163	7600058	12/7/77
Snapbean, Exp. 195	7600059	1/6/78
'Green Genes' Bean	7600060	12/7/77
Snapbean, Exp. 116-0	7600061	12/30/77
Mikado (AVX 450)	Ap8400037	12/30/83
Mystro	8500064	4/16/85

## II. Pending Certificate Applications

<u>Title</u>	<u>Application Number</u>	<u>Filing Date</u>
Cajun Queen	Pending	--
Mendota	Pending	--
Sunset	Pending- 8300074	--
Alpine	Pending	--
Polaris	Pending	--

AGRIGENETICS CORPORATION

By: Murray Polunin  
 Title: Executive Vice President



COMMONWEALTH OF MASSACHUSETTS )

County of Suffolk )

On this 30<sup>th</sup> day of April, 1986, before me appeared Murray Johnson, the person who signed this instrument, who acknowledged that he signed it as a free act on behalf of Agrigenetics Corporation.

Susan J. Haherty  
Notary Public  
My Commission Expires: 11/21/91



8300074

BILL OF SALE AND ASSIGNMENT

FOR VALUE RECEIVED, Sunseeds Genetics Inc, a Delaware Corporation, with its principal offices at 2320 Technology Parkway, Hollister, California, ("Sun") does hereby sell, transfer, assign and convey to Rogers Brothers Seed Company, a Delaware Corporation with principal offices at 1755 Westgate Drive, Boise, Idaho, ("Rogers") the following:

1. All Sun's intangible assets relating to its pea, snap pea, garden bean, runner bean, cow pea, dry bean, and lima bean business ("Products").
2. All plant variety protection rights and all plant variety protected materials along with the rights to use the names thereof including all varieties listed on Schedule A attached hereto and incorporated herein by this reference.
3. All proprietary plant varieties and all other proprietary information relating thereto which are related to Products.
4. All patents, patent application and patent applications relating to the Products.
5. All research property relating to Products including notebooks, findings, pedigrees, records of experiments and their results, seed stocks, know how, techniques, all other proprietary information in whatever form stored, germ plasm, the germ plasm uses, seed samples and their coding and indexing methods.
6. All trademarks, trade names, service marks and copyrights which apply to the Products excluding any name which includes the corporate name of Sun and its affiliates.
7. Any and all other intangible assets and property rights relating to Products not specifically mentioned herein.



830054

SUNSEEDS GENETICS, INC.  
 PLANT VARIETY PROTECTION - USA  
 AS OF 8/10/88

Variety	Cert #	Issued	Expires	Issued To
<u>Peas</u>				
Alpine	8500101	09/27/85	09/27/03	Sunseeds, A Div. of Agri. Sunseeds Genetics, Inc.
Blizzard	8700022	06/30/87	06/30/05	
Mendota	AP 8500163	05/30/85		Agrigenetics Corporation
Polaris	AP 8600017	11/12/85		
Sunset	8300074	04/30/84	04/30/02	
Titania	AP 8200008	10/26/81		
<u>Beans</u>				
Brokers Choice	8100175	04/28/83	04/28/01	Agrigenetics Corporation
Conquest	7700058	07/26/77	07/26/94	Keystone Seed Co., Inc.
Empress	7900045	04/15/82	04/15/00	Agrigenetics Corporation
Green Genes	7600060	12/07/77	12/07/94	Northrup King
Keygold	8000111	10/16/80	10/16/97	Keystone Seed Co., Inc.
Lake Erie	7100031	08/12/74	08/12/91	Keystone Seed Co., Inc.
Lake Geneva	7200068	05/21/74	05/21/91	Keystone Seed Co., Inc.
Lake Largo	7400104	09/30/74	09/30/91	Keystone Seed Co., Inc.
Lake Seneca	7500096	11/24/75	11/24/92	Keystone Seed Co., Inc.
Lake Shasta	7100030	08/12/74	08/12/91	Keystone Seed Co., Inc.
Lake Superior	7100034	05/21/74	05/21/91	Keystone Seed Co., Inc.
Lakeland	7600059	01/26/78	01/26/95	Agrigenetics Corporation
Miami	7100036	02/28/74	02/28/91	Keystone Seed Co., Inc.
Mikado (AVX 450)	8400037	03/31/87	03/31/05	Sunseeds Genetics, Inc.
Paymaster	7600058	12/07/77	12/07/94	Agrigenetics Corporation
Profit Maker	8100174	04/28/83	04/28/01	Agrigenetics Corporation
Raider	7400069	07/26/74	07/26/91	Keystone Seed Co., Inc.
Rebel	7100033	09/30/74	09/30/91	Keystone Seed Co., Inc.
Shannon	8200007	04/28/83	04/28/01	Agrigenetics Corporation
Sunrise	7100029	06/24/74	06/24/91	Keystone Seed Co., Inc.
Triumph	7600061	12/30/77	12/30/94	Agrigenetics Corporation

AP - PVP applied for



DATED this the 26 day of May, 1989.

SUNSEEDS GENETICS INC:

BY [Signature]  
its: EXECUTIVE VICE PRESIDENT

ATTEST:

[Signature]

State of CALIFORNIA        )  
  ) ss  
County of SAN BENITO        )

On this 26th day of May, 1989, before me, the undersigned Notary Public, personally appeared WILLIAM FRAZIER and ROBERT VAN MARTER known to me to be the EXECUTIVE V.P. and V.P. OF FINANCE respectively of the corporation that executed the instrument, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal, the day and year in this certificate first above written.



Cindy J Actis  
Notary Public  
Residing at: Hollister, CA  
My commission expires: 8/7/91



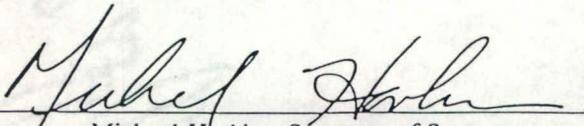
# State of Delaware

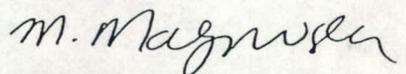


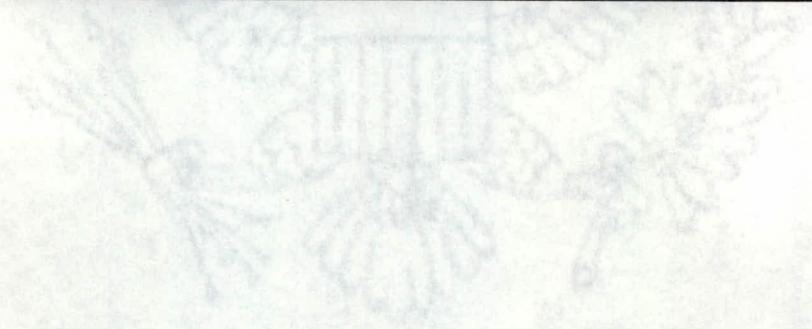
## Office of Secretary of State

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.

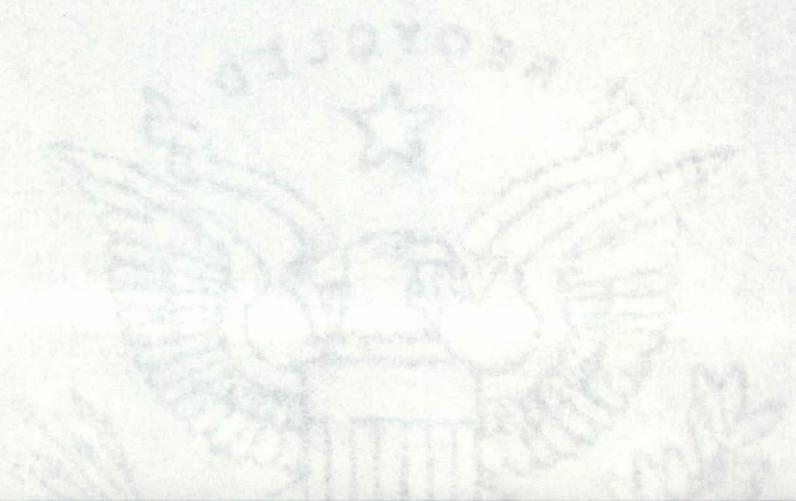


  
Michael Harkins, Secretary of State

AUTHENTICATION:   
DATE: 10/08/1991



8091



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*  
*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



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



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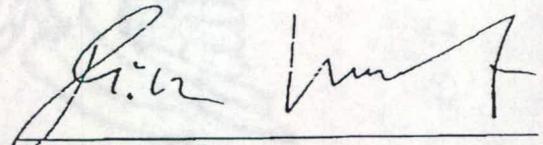
ROGERS NK SEED CO.

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.

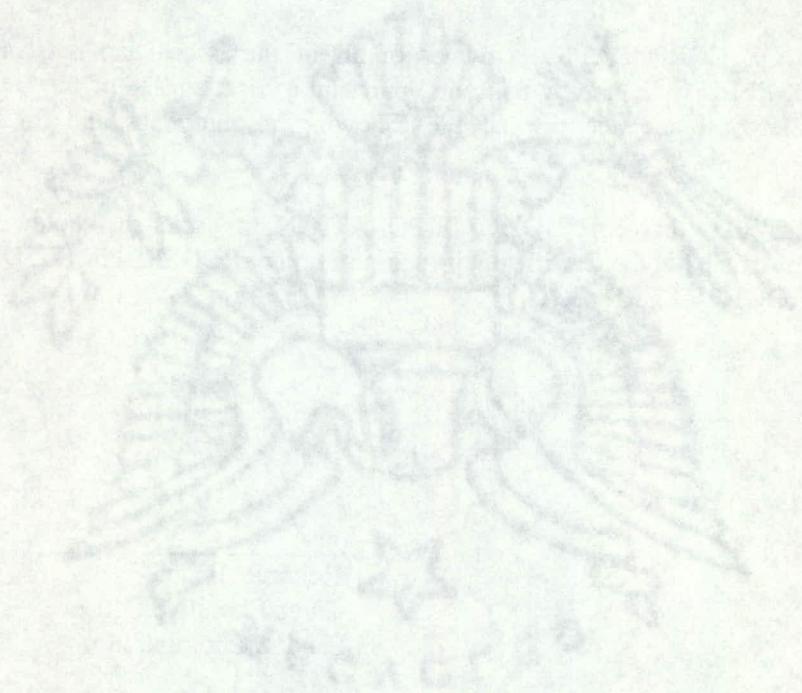
Dated: April 22, 1994

  
Heinz P. Imhof,  
Chief Executive Officer  
Sandoz Corporation

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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

8991



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  
 97L211787 - 0629320

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.

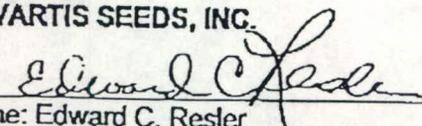
**FIFTH:** That the executed Agreement and Plan of Merger is on file at the principal place of business of the surviving corporation, the address of which is 7500 Olson Memorial Highway, Golden Valley, MN 55427.

**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

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