

No.

8500092



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Rogers Brothers Seed Company**

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

'Jupiter'



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 31st day of October in the year of our Lord one thousand nine hundred and eighty-five.

Attest

*Kenneth A. Egan*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*John R. Block*  
Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

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).

**APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE**

(Instructions on reverse)

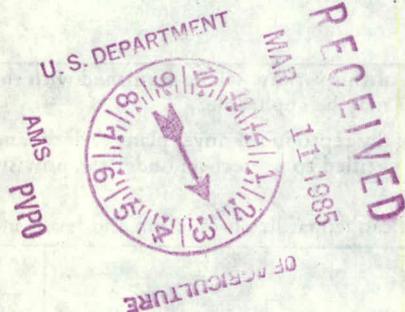
1. NAME OF APPLICANT(S)  ROGERS BROTHERS SEED COMPANY		2. TEMPORARY DESIGNATION  C 82408		3. VARIETY NAME  JUPITER <span style="color:red; font-size:small;">R/S 9/10/85</span>															
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code)  P.O. Box 80 Idaho Falls, ID 83402		5. PHONE (Include area code)  (208) 522-0143		<b>FOR OFFICIAL USE ONLY</b> PVPO NUMBER <span style="font-size: large;">8500092</span>															
6. GENUS AND SPECIES NAME  Pisum Sativum			7. FAMILY NAME (Botanical)  Leguminosae																
8. KIND NAME  Garden Pea		9. DATE OF DETERMINATION  Summer 1982		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold;">FILING</td> <td>DATE</td> <td colspan="2">3/28/85</td> </tr> <tr> <td>TIME</td> <td>2:30</td> <td><input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.</td> </tr> </table>		FILING	DATE	3/28/85		TIME	2:30	<input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.							
FILING	DATE	3/28/85																	
	TIME	2:30	<input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.																
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); font-weight: bold;">FEES RECEIVED</td> <td>AMOUNT FOR FILING</td> <td colspan="2">\$ 1,800</td> </tr> <tr> <td>DATE</td> <td colspan="2">3/28/85</td> </tr> <tr> <td rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold;">FEES RECEIVED</td> <td>AMOUNT FOR CERTIFICATE</td> <td colspan="2">\$ 200</td> </tr> <tr> <td>DATE</td> <td colspan="2">9/10/85</td> </tr> </table>		FEES RECEIVED	AMOUNT FOR FILING	\$ 1,800		DATE	3/28/85		FEES RECEIVED	AMOUNT FOR CERTIFICATE	\$ 200		DATE	9/10/85	
FEES RECEIVED	AMOUNT FOR FILING	\$ 1,800																	
	DATE	3/28/85																	
FEES RECEIVED	AMOUNT FOR CERTIFICATE	\$ 200																	
	DATE	9/10/85																	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION  Delaware				12. DATE OF INCORPORATION  February 25, 1975															
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS  Mr. Charles Green ROGERS BROTHERS SEED COMPANY P.O. Box 80 Idaho Falls, ID 83402 <span style="float: right;">PHONE (Include area code): (208) 522-0143</span>																			
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 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  <span style="font-size: large; font-family: cursive;">Charles Green</span>				DATE  Feb. 6, 1985															
SIGNATURE OF APPLICANT				DATE															

## INSTRUCTIONS

**General:** Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$1,800 fee (\$200 filing fee and \$1,600 examination fee) to U.S. Department of Agriculture, Agricultural Marketing Service, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

### Item

- 9 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 14a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 14b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; 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.
- 14e Section 52(4) of the Plant Variety Protection Act requires applicants to furnish a statement of the basis of the applicant's ownership. The applicant may be the actual breeder, the employer of the breeder, the owner through purchase or inheritance, 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.)
- 19 See section 41 (i, j) and 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice for eligibility requirements.



(C 82408)

'JUPITER'

8500092

RJS 9/10/85

EXHIBIT A

ORIGIN AND BREEDING HISTORY OF THE VARIETY

'JUPITER'

(C 82408) is an early to mid-season pea variety that was derived from the following hand-pollinated crosses:

(Alcan x Allsweet) x Asgrow Mini

The final cross of (C 82408) was made during the Fall of 1976 and the following series of selection were subsequently made:

<u>YEAR</u>	<u>GENERATION</u>	<u>PLOT</u>	<u>AMOUNT HARVESTED</u>
1976-77	f <sub>1</sub>	76-GH-338	GREENHOUSE INCREASE
1977	f <sub>2</sub>	772440	BULK
1978	f <sub>3</sub>	782402-1	SINGLE PLANT
1979	f <sub>4</sub>	792127-1	SINGLE PLANT
1980	f <sub>5</sub>	801637-4	SINGLE PLANT
1981	f <sub>6</sub>	812258	10 OZ
1982	f <sub>7</sub>	82408*	1# 14 OZ
1982	f <sub>7</sub>	82829*	20#

\*Plots 82408 and 82829 were planted from the same parent stock, 812258.

During the summer of 1983, the 20# lot 82829 was increased and was the basis for the production seed stock of (C 82408) 'JUPITER'.

'JUPITER'  
(C 82408) is genetically uniform and stable. There have been no off-type rogues reported in the variety.

# EXHIBIT A ORIGIN AND BREEDING HISTORY OF THE VARIETY

(C 82408) is an early-to-mid-season pea variety that was derived from the following land-plantated crosses:

(Always Allways) x Arrow

The final cross of (C 82408) was made during the fall of 1976 and the following series of selection were subsequently made:

YEAR	OPERATION	PLANT	ANNUAL YIELD (LBS)
1976-77	41	76-03-338	GREENHOUSE INCUBATED
1977	42	772440	BULK
1978	43	782402-1	SINGLE PLANT
1979	44	792127-1	SINGLE PLANT
1980	45	801637-4	SINGLE PLANT
1981	46	812258	10 02
1982	47	82408*	14 14 02
1983	47	82829*	204

Plots 82408 and 82829 were planted from the same parent stock, 812258.

During the summer of 1983, the 204 for 82829 was increased and was the basis for the production seed stock of (C 82408).

(C 82408) is genetically uniform and stable. There have been no off-type focuses reported in the variety.

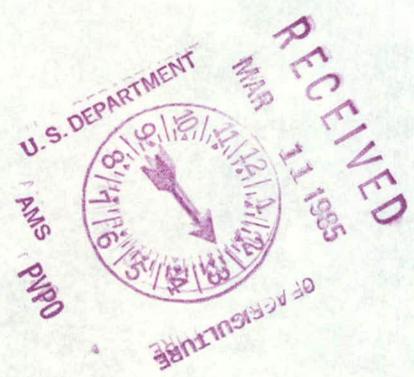


EXHIBIT B

NOVELTY STATEMENT

'JUPITER'

(C 82408) most nearly resembles the pea variety Mini but differs as follows:

1. (C 82408) is approximately four days earlier maturing than Mini at Twin Falls, Idaho.

	<u>1983</u>	<u>1984</u>
'JUPITER' (C 82408):		
Tenderometer Reading	106	95
Days to Maturity	77	81
Heat Units to Maturity (oF)	1,361	1,340

MINI:

Tenderometer Reading	99	93
Days to Maturity	82	84
Heat Units to Maturity (oF)	1,514	1,414

2. The vine of (C 82408) is approximately 12 cm shorter than the vine of Mini.

	<u>VINE HT (cm)*</u>	<u>STANDARD DEVIATION</u>
'JUPITER' (C 82408)	58	8.13
MINI	73	7.70

\*Based upon an average of 25 randomly selected plants.

82408

(C 82408)

EXHIBIT B

NOVELTY STATEMENT

(C 82408) most nearly resembles the new variety with the following characteristics:

1. (C 82408) is approximately four days earlier maturing than Mini Star variety, Idaho.

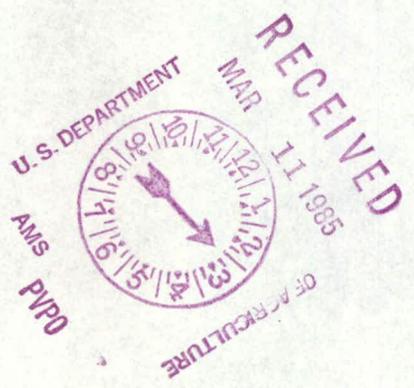
	1981	1982
Thermometer Reading	106	98
Days to Maturity	77	83
Heat Units to Maturity (or)	1,361	1,414

2. The vine of (C 82408) is approximately 12 cm shorter than the vine of Mini Star.

VINE HT (cm)

8.13  
7.70

\*Based upon an average of 25 randomly selected plants.



C 82408 'JUPITER'

<u>POD LENGTH</u>		<u>VINE LENGTH</u>		<u>INTERNODE LENGTH BETWEEN 1ST 2 BLOOMS</u>		<u>PEDUNCLE LENGTH 1ST BLOOM</u>	
51 MM	54	73 CM	58	52 MM	44	82 MM	63
55	54	45	55	45	40	94	74
53	52	55	66	34	48	60	90
51	53	53	56	39	43	78	85
56	51	61	61	37	44	93	88
56	53	44	56	52	45	86	84
52	50	68	54	46	50	75	81
53	52	74	54	38	40	87	96
50	54	50	45	44	38	77	63
52		58	58	49	45	71	83
51		69	61	45	36	75	69
52		59		50	38	89	63
54		46	57.72 AVE	48	43.6 AVE	70	79.04 AVE
49		64	SD = 8.13				
53							
54	52.6 AVE						

MINI

<u>POD LENGTH</u>		<u>VINE LENGTH</u>		<u>INTERNODE LENGTH BETWEEN 1ST 2 BLOOMS</u>		<u>PEDUNCLE LENGTH 1ST BLOOM</u>	
61 MM	63	82 CM	78	56 MM	63	85 MM	85
62	64	77	69	57	65	72	67
61	55	82	67	65	37	71	57
62	60	70	80	48	53	63	68
59	60	81	73	47	52	63	82
60	57	71	71	50	60	67	58
59	56	82	54	73	44	62	53
58	58	77	69	60	40	76	54
58	57	61	63	62	52	73	67
57		73		52	51	40	49
62		69		53		61	
60		67		48		74	
59		84	73.2 AVE	52		70	
60		71		43		60	
61		85	SD = 7.7	59	53.68 AVE	94	66.84 AVE
68	59.88 AVE						

880000

U.S. DEPARTMENT OF AGRICULTURE

PLANT INDUSTRY DIVISION

WASHINGTON, D.C. 20250

TELEPHONE (202) 546-1100

FACSIMILE (202) 546-1100

MAIL ROOM (202) 546-1100

POST OFFICE BOX 348

WASHINGTON, D.C. 20001

INTERNET: WWW.ASIS.USDA.GOV

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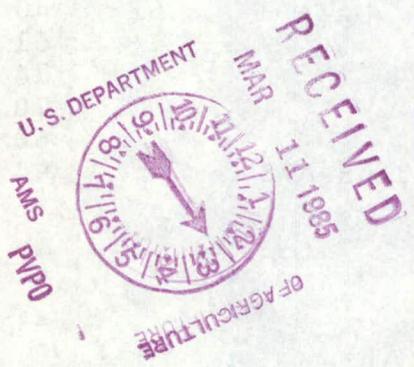
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UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION  
NATIONAL AGRICULTURAL LIBRARY  
BELTSVILLE, MARYLAND 20705  
OBJECTIVE DESCRIPTION OF VARIETY  
PEA (*PISUM SATIVUM*)

NAME OF APPLICANT(S) ROGERS BROTHERS SEED CO.	VARIETY NAME OR TEMPORARY DESIGNATION C 82408 <b>JUPITER</b>
	FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P.O. Box 80 Idaho Falls, ID 83402	PVPO NUMBER <b>8500092</b>

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

<input type="text" value="1"/> <input type="text" value="2"/> No. of days Earlier than . . . . .	<input type="text" value="5"/> } 1 = ALASKA WR    2 = THOMAS LAXTON WR    3 = LITTLE MARVEL
<input type="text" value="1"/> <input type="text" value="0"/> at Twin Falls, Idaho No. of days Later than . . . . .	<input type="text" value="1"/> } 4 = WANDO    5 = ALDERMAN WR    6 = AUSTRIAN WINTER

3. PLANT HEIGHT:

<input type="text" value="0"/> <input type="text" value="5"/> <input type="text" value="8"/> CM. HIGH	
<input type="text" value="0"/> <input type="text" value="9"/> Cm. Shorter than . . . . .	<input type="text" value="1"/> } 1 = ALASKA WR    2 = THOMAS LAXTON WR    3 = LITTLE MARVEL
<input type="text" value="0"/> <input type="text" value="5"/> Cm. Taller than . . . . .	<input type="text" value="3"/> } 4 = WANDO    5 = ALDERMAN WR    6 = AUSTRIAN WINTER

4. VINE:

<input type="text" value="1"/> Habit: 1 = DETERMINATE    2 = INDETERMINATE	<input type="text" value="1"/> Stockiness: 1 = SLIM (Alaska)    3 = HEAVY (Alderman) 2 = MEDIUM (Thomas Laxton WR)
<input type="text" value="1"/> Branching: 1 = NONE (Alaska)    2 - 1-2 BRANCHES (Little Marvel)    3 = MORE THAN 2 BRANCHES (Dwarf Gray Sugar)	
<input type="text" value="2"/> Internodes: 1 = STRAIGHT    2 = ZIG ZAG	<input type="text" value="2"/> <input type="text" value="0"/> NUMBER OF NODES

5. LEAFLETS:

<input type="text" value="2"/> Color: 1 = LIGHT GREEN (Alaska WR)    2 = MED. GREEN (Thomas Laxton WR)    3 = DARK GREEN (Alderman) 4 = OTHER (Specify)	
<input type="text" value="4"/> Wax: 1 = NONE    2 = LIGHT    3 = MEDIUM    4 = HEAVY	<input type="text" value="2"/> 1 = NOT MARBLED    2 = MARBLED (Alaska)
<input type="text" value="3"/> Number of leaflet pairs: 1 = NOT PAIRED    2 = ONE    3 = TWO    4 = THREE OR MORE	

6. STIPULES:

<input type="text" value="2"/> 1 = LACKING    2 = PRESENT	<input type="text" value="2"/> 1 = NOT CLASPING    2 = CLASPING
<input type="text" value="2"/> 1 = NOT MARBLED    2 = MARBLED	<input type="text" value="3"/> Size (Compared with leaflets): 1 = SMALLER    2 = SAME 3 = LARGER
<input type="text" value="2"/> Color (Compared with leaflets): 1 = LIGHTER    2 = SAME    3 = DARKER	

7. FLOWER COLOR:

<input type="text" value="2"/> VENATION <input type="text" value="1"/> STANDARD <input type="text" value="1"/> WING <input type="text" value="1"/> KEEL	1 = WHITE    2 = GREENISH    3 = LAVENDER 4 = PURPLE    5 = RED 6 = OTHER (Specify)
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8. PODS:

1 Shape: 1 = STRAIGHT 2 = SLIGHTLY CURVED  2 End: 1 = POINTED (Alderman) 2 = BLUNT (Alaska)  
 1 Color: 1 = LIGHT GREEN (Alaska WR) 2 = MEDIUM GREEN 3 = DARK GREEN (Alderman)  
 1 Color: 4 = OTHER (Specify) \_\_\_\_\_  
 2 Surface: 1 = SMOOTH 2 = ROUGH  2 Surface: 1 = SHINY 2 = DULL  
 2 Borne: 1 = SINGLE 2 = DOUBLE 3 = SINGLE AND DOUBLE 4 = SINGLE, DOUBLE, & TRIPEE  
 2 Borne: 5 = DOUBLE & TRIPLE 6 = TRIPLE 7 = OTHER (Specify) \_\_\_\_\_  
 0  5.3 CM. LENGTH on back  1  2 MM. WIDTH (Between sutures)  7  NO. SEEDS PER POD

9. SEEDS (95-100 Tenderometer):

1 Color: 1 = LIGHT GREEN 2 = GREEN 3 = DARK GREEN 4 = OTHER (Specify) \_\_\_\_\_  
 Sieve: %  3  2  3  7  2  6  0  5  0  1  0  0  0  0  0  0  2.0  9  AVERAGE

SEEDS (Dry, Mature):

1 Shape: 1 = FLATTENED 2 = ANGULAR 3 = OVAL 4 = ROUNDED  
 3 Surface: 1 = SMOOTH 2 = DIMPLED 3 = WRINKLED  2 Surface: 1 = SHINY 2 = DULL  
 2 Color Pattern: 1 = MONOCOLOR 2 = MOTTLED 3 = STRIPED 4 = DOTTED  
 3 Primary Color: 1 = CREAMY-WHITE 2 = CREAM & GREEN 3 = LIGHT GREEN 4 = MEDIUM GREEN  
 3 Primary Color: 5 = DARK GREEN 6 = BLUE-GREEN 7 = YELLOW 8 = BROWN 9 = RED  
 4 Secondary Color: 10 = GRAY 11 = BLACK  
 2 Hilum Floor Color: 1 = WHITE 2 = TAN 3 = BLACK  1 Cotyledon Color: 1 = GREEN 2 = YELLOW 3 = ORANGE

1  0 GRAMS PER 100 SEEDS

10. DISEASE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

1 FUSARIUM WILT  0 NEAR-WILT  0 DOWNY MILDEW  
 0 ASCOCHYTA BLIGHT  1 POWDERY MILDEW  0 BACTERIAL BLIGHT  
 0 MOSAIC  0 PEA ENATION MOSAIC  0 YELLOW BEAN MOSAIC  
 OTHER (Specify) \_\_\_\_\_

11. INSECT: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

0 APHIDS  OTHER (Specify) \_\_\_\_\_

12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	Mini	Fresh Seed Color	Mini
Leaf Color	Mini	Mature Seed Color	Mini
Pod Color	Mini	Seed Shape	Mini
Pod Shape	Mini	Plant Habit	Mini

COMMENTS:

Shorter Pod )  
 Shorter Vine ) than Mini  
 Longer Peduncles )

8500092

(C 82408) 'JUPITER'

EXHIBIT D

ADDITIONAL DESCRIPTION OF THE VARIETY

'JUPITER'  
(C 82408) is an early to mid-season, light green berry, canning type pea variety. It is unique in having an extremely small sieve size of 2.1 average in a wrinkle seeded pea variety. The vine is determinate and compact with a concentrated pod set, with mostly two pods per node and is wirey with small leaves and open foliage.

107-107

(C 82408)

EXHIBIT B

ADDITIONAL DESCRIPTION OF THE VARIETY

(C 82408) is an early to mid-season, light green berry, trailing type pea variety. It is unique in having an extremely small, almost spherical, wrinkled seed. The vine is determinate and compact with a concentrated pod set, with mostly two pods per node and is wired with small leaves and open foliage.

39% COTTON FIBER

SCOTLAND IN GREAT BRITAIN

Patent 214,300



8500092

(C 82408)

*'JUPITER'*  
*9/10/85*

EXHIBIT E

STATEMENT OF THE BASIS OF APPLICANTS OWNERSHIP

*'JUPITER'*

(C 82408) pea was developed by plant breeders employed by Rogers Brothers Seed Company and is owned by Rogers Brothers Seed Company.

859408

(C 82408)

EXHIBIT B

STATEMENT OF THE BASIS OF APPLICANT'S CLAIMS

(C 82408) per was developed by plant breeders employed by Rogers Brothers Seed Company and is owned by Rogers Brothers Seed Company.

25% COTTON FIBER  
SCOTTSDALE, ARIZONA  
RUGER STAFFORD



1990

State of Delaware



Office of Secretary of State

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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.



RECYCLED

*Michael Harkins*  
Michael Harkins, Secretary of State

AUTHENTICATION: *M. Magnusson*  
DATE: 10/08/1991

1998

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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.

1998



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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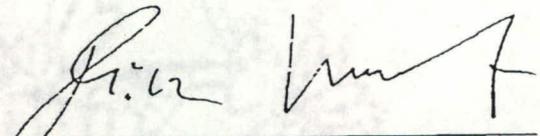
ROGERS NK SEED CO.

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



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

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AUTHENTICATION: 8531908  
06-26-97

DATE:

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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.

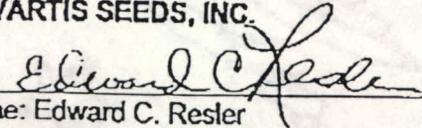
**FIFTH:** That the executed Agreement and Plan of Merger is on file at the principal place of business of the surviving corporation, the address of which is 7500 Olson Memorial Highway, Golden Valley, MN 55427.

**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

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