

No.

880069



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Bakker Brothers of Idaho, Inc.

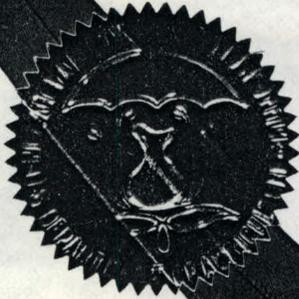
Whereas, THERE HAS BEEN PRESENTED TO THE  
**Secretary of Agriculture**

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

BEAN

'Early Sunray'



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 June in the year of our Lord one thousand nine hundred and ninety-two.

Attest:

*Kenneth H. Evans*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*Edward Madison*  
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) BAKKER BROTHERS OF IDAHO, INC.		2. TEMPORARY DESIGNATION 11.1770	3. VARIETY NAME EARLY SUNRAY
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O. BOX 260 HUSTON, IDAHO 83630		5. PHONE (Include area code) 208-459-7211	FOR OFFICIAL USE ONLY PVPO NUMBER 8800069
6. GENUS AND SPECIES NAME PHASEOLUS VULGARIS	7. FAMILY NAME (Botanical) LEGUMINOSAE		FILING DATE February 3, 1988 TIME 9:30 <input checked="" type="checkbox"/> A.M. <input type="checkbox"/> P.M.
8. KIND NAME BUSH GARDEN BEAN	9. DATE OF DETERMINATION MARCH 1, 1986		FEES RECEIVED AMOUNT FOR FILING \$ 1800.00 DATE February 3, 1988 AMOUNT FOR CERTIFICATE \$ 200.00 DATE June 10, 1992
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) CORPORATION			12. DATE OF INCORPORATION AUGUST 6, 1975
11. IF INCORPORATED, GIVE STATE OF INCORPORATION IDAHO			

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

STANLEY C. MERRILL  
 BAKKER BROTHERS OF IDAHO, INC.  
 P.O. BOX 260  
 HUSTON, IDAHO 83630

PHONE (Include area code): 208-459-7211

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

a.  Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)

b.  Exhibit B, Novelty Statement.

c.  Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.)

d.  Exhibit D, Additional Description of Variety.

e.  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.)

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?

Yes  No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

Foundation  Registered  Certified

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

Yes (If "Yes," give date)

No

19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?

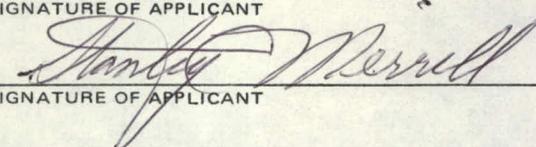
Yes (If "Yes," give names of countries and dates)

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 	DATE 1-28-88
SIGNATURE OF APPLICANT	DATE

## INSTRUCTIONS

**General:** Send an original copy of the application and exhibits, at least 2,500 viable seeds (*furnish only untreated seed*), and \$1,800 fee (\$200 filing fee and \$1,600 examination fee) to the 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 Sections 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.

**NOTE:** All information submitted in support of an application becomes **PUBLIC INFORMATION** once the certificate is issued. (*See Section 180.17 of the Regulations and Rules of Practice.*)



## ORIGIN AND BREEDING HISTORY

Early Sunray is derived from a cross involving the parent variety Idelight and the line, OSU4843-1. Idelight is resistant to bean common mosaic virus (1 & 1A) and the curly top virus. Idelight originated from University of Idaho disease resistant breeding lines and the cultivar, Tenderpod. OSU 4843-1, a white seeded line developed by Oregon State University later became the variety, Oregon 43. It is of complex parentage, combining a number of blue lake type bean lines, is resistant to bean common mosaic virus (1 & 1A) and a mixture of NY-15 and Florida strains. Oregon 43 also exhibits moderate tolerance to halo blight (race 1 & 2) [Psuedomonas Phaseolicola Burke (Dows)].

The basic objective was to create a variety similar to Idelight but earlier maturing. The pedigree method of breeding was used. By the F-5 generation all white seeded variants had been eliminated and disease resistance testing had been accomplished. The selected family was then maintained through mass selection. Forty (40) single plants from the F-8 generation were indistinguishable in the F-9 and these formed the basis for further increase. Stability has been maintained through three succeeding generations of increase.

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GARDEN BEAN: EARLY SUNRAY

SECTION 14B

NOVELTY STATEMENT

Early Sunray is a variety of garden bean (*Phaseolus Vulgaris* L) exhibiting plant, pod, and seed characteristics similar to Idelight. While the most notable characteristic difference between Idelight and Early Sunray is a 4 - 6 day earlier first pod maturity for the latter, Early Sunray also has longer pods (.8 cm) and a more slender appearance of seeds (14.5 cm per 10 seeds compared to 13.2 cm for Idelight).

*'Idelight' is the "most similar" variety.*

*AAH 26 May 1992 per phone  
conversation*

*w/ Stanley Merrill*

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) BAKKER BROTHERS OF IDAHO, INC.	FOR OFFICIAL USE ONLY PVPO NUMBER 8800069
	ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O. BOX 260 HUSTON, IDAHO 83630

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: PANTONE COLOR FORMULA GUIDE. The location of test area is HUSTON, IDAHO. Please answer questions appropriate for your variety if the information is available.

1. TYPE:

1 = Field (dry-edible)      2 = Garden

2. MARKET MATURITY:

Days to edible pods        Days to green shells

Days to dry seeds

Heat units to edible pods          Heat units to green shells

Heat units to dry seeds

No. days earlier than .....  }  
 ..... Same as ..  }  
  No. days later than .....

- 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)
- IDEALIGHT

3. PLANT:

1 = Determinate      2 = Indeterminate

cm height

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 .....

Branching habit:  
 1 = compact    2 = open

Main stalk: 1 = brittle    2 = wirey

1 = stout    2 = thin

3. PLANT: (Cont'd)

2 Pod position: 1 = low 2 = high 3 = scattered

4 Bush form (illustrated below):



1 = spherical bush form

2 = stem bush form

3 = wide bush form

4 = high bush form

5 = other (specify) \_\_\_\_\_

4. LEAVES:

1 1 = smooth 2 = wrinkled

1 1 = dull 2 = glossy

2 Size: 1 = small (Earliwax) 2 = medium 3 = large (Tendercrop)

3 Color: 1 = light green (as light or lighter than Bountiful) 2 = medium green  
3 = dark green (as dark or darker than Bush Blue Lake 290)

5. FLOWERS:

1 Color: 1 = white 2 = cream 3 = pink 4 = lilac 5 = purple 6 = Other (specify) \_\_\_\_\_

Days to 50% bloom

6. FRESH PODS: (Edible maturity, average for 20 pods)

3 Exterior color: 1 = light green (as light or lighter than Bountiful)  
2 = medium green  
3 = dark green (as dark or darker than Bush Blue Lake 290)  
4 = light yellow (Brittlewax)  
5 = golden yellow (Cherokee Wax)  
6 = green-red variegated (Horticultural)  
7 = other (specify) \_\_\_\_\_

% Sieve size distribution at optimum maturity for non-flat pods

Note:

- 1 = 4.76 mm to 5.76 mm
- 2 = 5.76 mm to 7.34 mm
- 3 = 7.34 mm to 8.34 mm
- 4 = 8.34 mm to 9.53 mm
- 5 = 9.53 mm to 10.72 mm
- 6 = 10.72 mm or larger

1	2	3	4	5	6
	10	15	45	30	

3 sieve	<input type="checkbox"/> 1 <input type="checkbox"/> 3	cm length	<input type="checkbox"/> 0 <input type="checkbox"/> 8	mm width	<input type="checkbox"/> 0 <input type="checkbox"/> 8	mm thickness
4 sieve	<input type="checkbox"/> 1 <input type="checkbox"/> 6	cm length	<input type="checkbox"/> 0 <input type="checkbox"/> 9	mm width	<input type="checkbox"/> 0 <input type="checkbox"/> 9	mm thickness
5 sieve	<input type="checkbox"/> 1 <input type="checkbox"/> 7	cm length	<input type="checkbox"/> 1 <input type="checkbox"/> 1	mm width	<input type="checkbox"/> 1 <input type="checkbox"/> 0	mm thickness
6 sieve	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	cm length	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	mm width	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	mm thickness



6. FRESH PODS: (Cont'd)

- 3 Cross section pod shape: 1 = flat 2 = oval 3 = round 4 = heart
- 2 Creaseback: 1 = present 2 = absent
- 1 Pubescence: 1 = none 2 = sparse 3 = considerable
- 2 Spur: 1 = straight 2 = slightly curved 3 = curved
- 1 Constrictions: 1 = none 2 = slight 3 = deep
- 3 Pod flesh: 1 = light 2 = medium 3 = dark
- 1  1 mm spur length
- 1 Fiber: 1 = none 2 = sparse 3 = considerable
- 8 Number of seeds per pod
- 1 Surface: 1 = smooth 2 = rough
- 2 Suture string: 1 = present 2 = absent
- 1 Seed development (Snap Bean): 1 = slow 2 = medium 3 = fast
- 1 Machine harvest: 1 = adapted 2 = not adapted
- 2 Pod flavor: (1) Standard (Tendercrop)  
 (2) Mild Blue Lake (BBL 274)  
 (3) Strong Blue Lake (Pole FM1)  
 (4) Mild Romano (Roma)  
 (5) Strong Romano (Pole Romano)  
 (6) Other (specify) \_\_\_\_\_

7. SEED COAT COLOR:

- 1 1 = Monochrome 2 = Polychrome  1 1 = shiny 2 = dull
- 5 Primary color: } 1 = white 2 = yellow 3 = buff 4 = tan
- X Secondary color: } 5 = brown 6 = pink 7 = red 8 = purple  
 9 = blue 10 = black 11 = other (specify) \_\_\_\_\_
- 1 Color Pattern: 1 = none 2 = splashed 3 = mottled 4 = striped 5 = flecked 6 = dotted
- X Secondary color location: 1 = hilar ring 2 = ventral surface  
 3 = sides 4 = dorsal surface  
 5 = not restricted to any area 6 = combination of location (specify below) \_\_\_\_\_
- 1 Hilar ring on colored seeds: 1 = absent 2 = narrow 3 = butterfly shaped

8. SEED SHAPE AND SIZE:

- 2 Hilum view: 1 = elliptical 2 = oval 3 = round  4 Cross section: 1 = elliptical 2 = oval 3 = cordate 4 = round





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GARDEN BEAN: EARLY SUNRAY

SECTION 14D

ADDITIONAL DESCRIPTION OF VARIETY

Early Sunray is a green podded garden bean, Phaseolus Vulgaris L. Concentration of pod set makes the variety suitable as a machine harvest type.

Grown in southwestern Idaho and seeded June 10, Early Sunray matures at the edible pod and dry seed stage about five days earlier than Idelight.

The plants of Early Sunray average very slightly shorter and wider than Idelight. Foliage color is a little darker and more glossy (357C) compared to Idelight (364U).

Pods of Early Sunray are similar in cross section, sieve size and average .8 cm longer. Pod surface of Early Sunray has a less glossy appearance than Idelight. Blanched pod color is similar in both varieties. Seeds are brown in both varieties. Early Sunray seeds average 14.5 cm in length per 10 seeds, compared to 13.2 cm for Idelight. Both are ovate in shape.

In comparison to Idelight, Early Sunray has a high degree of tolerance to Halo Blight.

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EXHIBIT E

STATEMENT OF THE BASIS OF APPLICANT OWNERSHIP

Bakker Brothers of Idaho, Inc., through its agents or employees, has developed the variety described in this application. There are no other parties outside Bakker Brothers involved in any way in the development of this variety. Bakker Brothers of Idaho, Inc. therefore claims sole ownership of the bean variety, Early Sunray for which plant variety protection is requested.

