No. 7400005

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Soybean Research Foundation, 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 seventeen 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. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'SRF 425'

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* fifth *day of* December *in the year of our Lord one thousand nine hundred and* seventy three.

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Serv.

Secretary of Agriculture

FORM GR-470
(12-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION SRF 425	2. KIND NAME Soybeans	FOR OFFICIAL USE ONLY PV NUMBER 7400005
3. GENUS AND SPECIES NAME Glycine max (L.) Merr.	4. FAMILY NAME *(Botanical)* Leguminosae 5. DATE OF DETERMINATION March, 1968	FILING DATE 7-27-73 TIME 3:00 P.M. FEE RECEIVED $250.00 $ $ BALANCE DUE $ $ $
6. NAME OF APPLICANT(S) Soybean Research Foundation, Inc.	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* P.O. Box #72 Mason City, Illinois 62664	8. TELEPHONE AREA CODE AND NUMBER 217 482-3219
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* Corporation	10. STATE OF INCORPORATION Illinois	11. DATE OF INCORPORATION April 28, 1965

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

Arnold L. Matson
Director of Soybean Breeding
Soybean Research Foundation, Inc.
Mason City, Illinois 62664

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

[X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*

[X] 13B. Exhibit B, Botanical Description of the Variety

[X] 13C. Exhibit C, Objective Description of the Variety

[X] 13D. Exhibit D, Data Indicative of Novelty

[X] 13E. Exhibit E, Statement of the Basis of Applicant's Ownership

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.)* [X] YES [ ] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [X] YES [ ] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? [X] FOUNDATION [X] REGISTERED [X] CERTIFIED

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes 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 is informed that false representation herein can jeopardize protection and result in penalties.

July 23, 1973
(DATE)

Arnold L. Matson
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

FORM GR-470 (REVERSE)

RECEIVED
JUL 27 73
AMS, GRAIN DIV.
PVPO

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, 6525 Belcrest Road, Hyattsville, Maryland 20782. (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 Insert the date the applicant determined that he had a new variety based on the definition in Section 41 (a) of the Act and decision is made to increase the seed.

13a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.

13b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.

13c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

13d Provide complete data indicative of novelty. Seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty may be submitted. Seeds submitted may be sterile.

13e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

SRF 425

Exhibit A -

"SRF 425" was developed by bulking seed from F_4 plants from the cross $Wayne_3$ x ($Dorman_5$ x PI181537).

Exhibit B -

Seed of SRF 425 are spherical. The seed coat is a shiny yellow and hilum color is black. The seed are rather small, containing about 3200 per lb. compared to 2500 for Wayne. Pod color is brown. The trifoliate leaves are lanceolate in shape, pubescence - tawny, and flowers are white. It is of Group IV maturity ripening about midway between Clark 63 and Kent - about the same as Cutler 71. Growth habit of SRF 425 is indeterminate. It branches well when grown in thin stands. A high percentage of the pods will bear 4 seeded pods, the percentage will vary with seeding rate, soil type, and season but in all cases it will be greater than Cutler 71 grown under the same conditions.

Exhibit D -

SRF 425 more closely resembles SRF 307B than any other previously released variety. However, it differs from SRF 307B in maturity, hilum color, and seed size. SRF 425 is about 10 days later, has black hilum (SRF 307B has brown hilum), and the seed size is smaller - 3200 per lb. compared to 2900 for SRF 307B. It most closely resembles SRF 350 which is a sister line to this variety and which is being released simultaneously with SRF 425. It differs from SRF 350 in maturity, height, and seed size. It is 6 days later, about 2 inches taller, and has about 300 fewer seeds per lb.

Exhibit E -

The Soybean Research Foundation is employer of the breeder, Dr. Arnold L. Matson, and is therefore the sole owner of the 'SRF 425' variety of soybean.

FORM GR-470-2
(6-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN *(GLYCINE MAX)*

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
Soybean Research Foundation, Inc.

ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code)*
P.O. Box #72
Mason City, Illinois 62664

FOR OFFICIAL USE ONLY
PVPO NUMBER

VARIETY NAME OR TEMPORARY DESIGNATION
SRF 425

Place the appropriate number that describes the varietal character of this variety in the boxes below.

1. SEED SHAPE:
[1] 1 = SPHERICAL 2 = SPHERICAL FLATTENED 3 = ELONGATE 4 = OTHER *(Specify)*

2. SEED COAT COLOR:
[1] 1 = YELLOW 2 = GREEN 3 = BROWN 4 = BLACK 5 = OTHER *(Specify)*
SHADE: [ ] 1 = LIGHT 2 = MEDIUM 3 = DARK

3. SEED COAT LUSTER:
[2] 1 = DULL 2 = SHINY

4. SEED SIZE
[1 4] GRAMS PER 100 SEEDS

5. HILUM COLOR:
[6] 1 = BUFF 2 = YELLOW 3 = BROWN 4 = GRAY 5 = IMPERFECT BLACK 6 = BLACK 7 = OTHER *(Specify)*
SHADE: [ ] 1 = LIGHT 2 = MEDIUM 3 = DARK

6. COTYLEDON COLOR:
[1] 1 = YELLOW 2 = GREEN

7. LEAFLET SIZE *(See Reverse)*:
[2] 1 = SMALL 2 = MEDIUM 3 = LARGE

8. LEAFLET SHAPE:
[3] 1 = OVATE 2 = OBLONG 3 = LANCEOLATE 4 = ELLIPTICAL 5 = OTHER *(Specify)*

9. LEAF COLOR *(See reverse)*:
[2] 1 = LIGHT GREEN 2 = MEDIUM GREEN 3 = DARK GREEN

10. FLOWER COLOR:
[1] 1 = WHITE 2 = PURPLE 3 = OTHER *(Specify)*

11. POD COLOR:
[2] 1 = TAN 2 = BROWN 3 = BLACK

12. POD SET:
[ ] 1 = SCATTERED 2 = CONCENTRATED

13. PLANT PUBESCENCE COLOR:
[2] 1 = GRAY 2 = BROWN 3 = OTHER *(Specify)*
SHADE: [2] 1 = LIGHT 2 = MEDIUM 3 = DARK

14. PLANT TYPES *(See Reverse)*:
[2] 1 = SLENDER 2 = BUSHY 3 = INTERMEDIATE

15. PLANT HABIT:
[2] 1 = DETERMINATE 2 = INDETERMINATE 3 = OTHER *(Specify)*

16. HYPOCOTYL COLOR:
[1] 1 = GREEN 2 = PURPLE

17. SEED PROTEIN:
[ ] 1 = A 2 = B

18. NUMBER OF DAYS TO FLOWERING
(Place a zero in first box (e.g. [0 9]) when days are 9 or less.)
[ ][ ]

19. MATURITY GROUP:
[6] 1 = 00 2 = 0 3 = I 4 = II 5 = III 6 = IV 7 = V 8 = VI 9 = VII 10 = VIII

20. SIZE OF 10 DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT *(Growth Chamber)* **AT 25° C.** *(Place a zero in first box (e.g. [0 2]) when size is 9 mm. or less.)*
[ ][ ][ ] MM. LENGTH OF SEEDLING
[ ][ ] MM. LENGTH OF COTYLEDON
[ ][ ] MM. WIDTH OF COTYLEDON

21. DISEASE: *(Enter 0 - Not Tested; 1 - Susceptible; 2 - Resistant)*

[0] BACTERIAL PUSTULE	[0] SOYBEAN CYST	[0] DOWNY MILDEW	[0] PURPLE STAIN	[0] POD AND STEM BLIGHT	[0] ROOT KNOT
[0] FROGEYE	[0] STEM CANKER	[0] PHYTO-PHTHORA	[0] BROWN STEM ROT	[0] TARGET SPOT	[0] BROWN SPOT
[0] BUD BLIGHT	[0] WILDFIRE	[0] RHIZOCTONIA ROT	[ ] OTHER *(Specify)*		

PV No. 7400005

Soybean
'SRF 425'

13A. Exhibit A:

'SRF 425' was developed by bulking seeds from F_4 plants from the cross 'Wayne 3' X ('Dorman 5' X 'PI 181537').

13B. Exhibit B:

The seeds of 'SRF 425' are small, approximately 14.2 g/100 seeds compared to 18.1 G/100 seeds for 'Wayne.' It is of Group IV maturity, ripening about midway between 'Clark 63' and 'Kent" - about the same as 'Cutler 71.' Growth habit of 'SRF 425' is indeterminate. Branching well when grown in thin stands. Compared to 'Cutler 71' it produces a greater percentage of 4-seeded pods when both varieties are grown under the same conditions.

13C. Exhibit C:

Seed shape	:	Spherical
Seed color	:	Yellow
Seed luster	:	Shiny
Seed size	:	14 g/100 seeds
Hilum color	:	Black
Cotyledon color	:	Yellow
Protein content	:	41.3 percent ('SRF 307', 43.4 percent)
Oil content	:	21.4 percent ('SRF 307', 21.2 percent)
Leaflet size	:	Medium
Leaflet shape	:	Lancelolate
Leaflet color	:	Medium green
Leaf width	:	50 mm ('Cutler 71', 72 mm)
Leaf length	:	124 mm ('Cutler 71', 98 mm)
Flower color	:	White
Pod color	:	Brown
Plant pubescence color	:	Medium brown
Plant habit	:	Bushy, indeterminate
Hypocotyl color	:	Green
Maturity group	:	IV - 137 days ('Cutler 71', 135 days)
Lodging score	:	2.8 ('Cutler 71', 2.7)
Plant height	:	127 cm ('Cutler 71', 124 cm)
Disease	:	Not tested for reaction to any disease

13D. Exhibit D:

'SRF 425' more closely resembles 'SRF 307-B' than any other previously released soybean variety. However, it differs from 'SRF 307-B' in maturity (10 days later); hilum color (black whereas 'SRF 307-B' has brown hilum); and seed size (14.2 g/100 seeds compared to 15.6 g/100 seeds for 'SRF 307-B'). 'SRF 425' most closely resembles 'SRF 350' which is a sister line to be released simultaneously with 'SRF 425'. It differs from 'SRF 350' in earlier maturity (6 days); taller plant height (2 inches); and smaller seed size (1.5 g/100 seeds smaller).

13E. Exhibit E:

The Soybean Research Foundation is employer of this breeder, Dr. Arnold L. Matson, and is therefore the sole owner of the 'SRF 425' soybean variety.

FORM GR-470-2 (REVERSE)

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant shape	SRF 307B	Petiole angle	SRF 307B
Leaf shape	SRF 307B	Seed size	SRF 400
Leaf color	SRF 307B	Seed shape	SRF 307B
Leaf surface	SRF 307B	Seedling pigmentation	SRF 307B

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY:

VARIETY	NO. OF DAYS TO MATURITY	LODGING SCORE	PLANT HEIGHT	LEAF SIZE		CONTENT		AVERAGE NO. OF PODS PER PLANT	IODINE NO.
				Width	Length	Protein	Oil		
Submitted	137	2.8	50"	50mm	124mm	41.3	21.4%		
Name of similar variety Cutler 71	135	2.7	49"	72mm	98mm				
SRF 307						43.4	21.2%		

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

1. Scott, Walter O. and Samuel R. Aldrich, 1970, Modern Soybean Production, The Farmer Quarterly.
2. Norman, A. G., 1963, The Soybean: Genetics, Breeding, Physiology, Nutrition, Management.
3. McKie, J. W., and K. L. Anderson, 1970, The Soybean Book.

LEAF COLOR: Nickerson's or any recognized color fan may be used to determine the leaf color of the described variety. The following Soybean varieties may be used as a guide to identify the colors listed on the form.

COLOR	VARIETY
Light Green	"Ada"
Medium Green	"Wilkin"
Dark Green	"Swift"

LEAF SIZE: The following varieties may be used as a guide to identify the relative size leaves.

SIZE	VARIETY
Small	"Amsoy"
Medium	"Bonus"
Large	"Anoka"

PLANT TYPE: The following varieties may be used as a guide to identify the plant type.

TYPE	VARIETY
Slender	"Vansoy"
Intermediate	"Wirth"
Bushy	"Adelphia"