No. 7100016

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 IS 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- PROTECTIOS 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. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS ED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

SRF 100

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

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

Soybean

'SRF 100'

13A. Exhibit A:

'SRF 100' originated as a composite of seed from 20 F2 progenies from the backcross 'Chippewa 64' (9) x D61-5141. The parentage of D61-5141 is 'Dorman' (5) x PI 181537. The 20 F2 progenies were selected for homozygosity of the narrow leaf character (na) and for uniform appearance.

13B. Exhibit B:

'SRF 100' is in maturity group I and is 1-3 days earlier than 'Chippewa 64.' It is very similar to 'Chippewa 64' in plant type, seed coat color, hilum color, flower color, and disease resistance. It differs from 'Chippewa 64' in leaf shape, seed size, and number of seeds per pod. Leaf shape of 'SRF 100' is lanceolate - 'Chippewa 64' ovate, seed size 14.6 g/100 seeds - 'Chippewa 64' 15.0 g/100 seeds. 'SRF 100' has a high percentage of 4-seeded pods while 'Chippewa 64' very seldom has 4-seeded pods. It is resistant to phytophthora root rot as is 'Chippewa 64.'

13c. Exhibit C:

Seed shape	:	Spherical
Seed color	:	Medium shade yellow
Seed luster	:	Shiny
Seed size	:	15 g/100 seeds
Hilum color	:	Jet black
Cotyledon color	:	Yellow
Protein content	:	42.7%
Oil content	:	22.2%
Leaflet shape	:	Lanceolate
Leaflet color	:	Medium green
Leaf width	:	72 mm.
Leaf length	:	154 mm.
Flower color	:	Purple
Pod color	:	Brown
Plant pubescence color	:	Medium gray
Plant habit	:	Intermediate, between slender and bushy

Exhibit A -

"SRF 100" soybeans (Glycine max (L,) Merr.) originated as a composite seed of 20 FF2 plant progenies from the back-cross Chippewa 64 (9) x D61-5141. The parentage of D61-5141 is Dorman (5) x PI 181537. The 20 progenies were selected for homozygousity for the narrow leaf characteristic (na) and for uniformity in appearance. All breeding and selection carried out at Soybean Research Foundation under supervision of Dr. Arnold L. Matson.

Exhibit B -

Seed of SRF 100 is round, seed coat is shiny yellow, and hilum is black, The trifoliate leaves are lanceolate in shape, flowers are purple, and pubescence, tawny. Growth habit is indeterminate. It is of Group I maturity. SRF 100 is very similar to Chippewa 64 in plant type, seed coat color, hilum color, flower color, and disease resistance. It differs from Clark 63 mainly in leaf shape, seed size, and number of seeds per pod. Leaf shape of SRF 100 is lanceolate - Chippewa 64 ovate, seed size 14.6 grams/100 seeds - Chippewa 64 15 0 grams/100 seeds, SRF 100 has quite a few 4 seeded pods [the % of which will vary depending upon stand, soil type, and weather) while Chippewa 64 very seldom has any, 4 seeded pods, SRF 100 is 1 to 3 days earlier in maturity then Chippewa 64, Like Chippewa 64 it is resistant to Phytophthora root rot (Phytonhthora meqasperma var. sojae).

all amendment
11-14-73

Exhibit D - Particulars of Trial Performance

Average performance in 1970 Northern Iowa Yield Test

	Yield (bu/a)	Maturity (Mo-day)	Height (in.)	Lodging score	Emergence score	Seeds per lb.	Protein* %	Oil* %
SRF 100	37.6	9-4	34	1.7	3	3400	42.7	22.2
Chippewa 64	37.7	9-6	36	1.6	2	3200	42.5	21.9

*Composite samples from 18 locations throughout corn belt

Exhibit E -

The Soybean Research Foundation is employer of the breeder, Dr. Arnold L. Matson, and is therefore the sole owner of the SRF 100 variety of soybean,

Signed Arnold L. Matson

Arnold L. Matson

#7116

Application No. 7116 Soybean SRF 100

Exhibit B -

Seed of SRF 100 is round, seed coat is shiny yellow, and hilum is black. The trifoliate leaves are lanceolate in shape, flowers are purple, and pubescence, tawny. Growth habit is indeterminate. It is of Group I maturity. SRF 100 is very similar to Chippewa 64 in plant type, seed coat color, hilum color, flower color, and disease resistance. It differs from Chippewa 64 mainly in leaf shape, seed size, and number of seeds per pod. Leaf shape of SRF 100 is lanceolate - Chippewa 64 ovate, seed size 14.6 grams/100 seeds - Chippewa 64 15.0 grams/100 seeds. SRF 100 has quite a few 4 seeded pods (the % of which will vary depending upon stand, soil type, and weather) while Chippewa 64 very seldom has any 4 seeded pods. SRF 100 is 1 - 3 days earlier in maturity then Chippewa 64. Like Chippewa 64, it is resistant to Phytophthora root rot (Phytophthora megasperma var. sojae).

amended

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 100	2. KIND NAME Soybeans	FOR OFFICIAL USE ONLY PV NUMBER 7116
3. GENUS AND SPECIES NAME Glycine max (L.) Merr.	4. FAMILY NAME *(Botanical)* Leguminosae	FILING DATE 2/2/71 — TIME 9:30 A.M. P.M.
	5. DATE OF DETERMINATION April, 1969	FEE RECEIVED $ 250 — BALANCE DUE $ 0
		$ 250 — $ 0
		$ — $
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.)*	10. STATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	Illinois	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.

January 28, 1971
(DATE)

Arnold L. Matson
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

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
7116

VARIETY NAME OR TEMPORARY DESIGNATION
SRF 100

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:
[2] 1 = LIGHT 2 = MEDIUM 3 = DARK

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

4. SEED SIZE
[1 5] 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:
[3] 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:
[2] 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)*:
[3] 1 = SLENDER 2 = BUSHY 3 = INTERMEDIATE

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

16. HYPOCOTYL COLOR:
[2] 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:
[3] 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	[1] SOYBEAN CYST	[1] DOWNY MILDEW	[0] PURPLE STAIN	[0] POD AND STEM BLIGHT	[0] ROOT KNOT
[0] FROGEYE	[0] STEM CANKER	[2] PHYTO-PHTHORA	[1] BROWN STEM ROT	[0] TARGET SPOT	[0] BROWN SPOT
[1] BUD BLIGHT	[0] WILDFIRE	[0] RHIZOCTONIA ROT	[ ] OTHER *(Specify)*		

FORM GR-470-2 (REVERSE)

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant shape	Chippewa 64	Petiole angle	Chippewa 64
Leaf shape	SRF 307	Seed size	Chippewa 64
Leaf color	Chippewa 64	Seed shape	Chippewa 64
Leaf surface	Chippewa 64	Seedling pigmentation	Chippewa 64

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY:

VARIETY	NO. OF DAYS TO MATURITY	LODGING SCORE	PLANT HEIGHT cm	LEAF SIZE		CONTENT		AVERAGE NO. OF PODS PER PLANT	IODINE NO.
				Width	Length	Protein	Oil		
Submitted	110	1.7	86 34"	72 MM	154MM	42.7	22.2 %		
Name of similar variety Chippewa 64	112	1.6	91 36"	98 MM	136MM	42.5	21.9		

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"

Hypocotyl color	:	Purple
Maturity group	:	I - 110 days
Lodging score	:	1.7
Height	:	86 cm.
Disease	:	Resistant to Phytophthora Root Rot; Susceptible to Soybean Cyst, Downy Mildew, Brown Stem Rot, and Bud Blight.

13D. Exhibit D:

'SRF 100' is the only variety of its maturity having a lanceolate shaped leaf. It is most similar to 'Chippewa 64' but differs in seed size and number of seeds per pod in addition to leaf shape.

13E. Exhibit E:

The Soybean Research Foundation is employer of the breeder, Dr. Arnold L. Matson, and is therefore the sole owner of the 'SRF 100' variety of soybean.

7116

Application No. 7116 Soybean SRF 100

Exhibit D - Data Indicative of Novelty

SRF 100 is the only variety of its maturity which has a lanceolate shaped leaf. It is most similar to Chippewa 64. The data below indicates that it is different from Chippewa 64.

Average performance in 1970 Northern Iowa Yield Test

	Yield (bu/a)	Maturity (Mo-day)	Height (in.)	Lodg. score	Leaf Size Width	Leaf Size Length	Seeds per lb.	Protein* %	Oil* %
SRF 100	37.6	9-4	34	1.7	72mm.	154mm.	3400	42.7	22.2
Chip. 64	37.7	9-6	36	1.6	98mm.	136mm.	3200	42.5	21.9

*Composite samples from 18 locations throughout Corn Belt

United States Department of Agriculture
Agricultural Research Service
Northern Plains Area
National Seed Storage Laboratory
Ft. Collins, Colorado
80523
Telephone: 303 484-0402
Fax: 303 221-1427

August 30, 1990

Dr. K. H. Evans, Commisioner
Plant Variety Protection Office
Nal Building, Rm. 500
10301 Baltimore Blvd.
Beltsville, MD 20705-2351

Dear Dr. Evans:

Subject: Expiration of Protection and Transfer of Seed Samples

As you requested, the National Seed Storage Laboratory has transfered the following samples to conventional storage and marked all records and GRIN, showing the samples expired.

PV #	VARIETY NAME	ACTION TAKEN
SOYBEAN		
7100016	SRF 100	Expired, transfer to NSSL 8-30-90
7100019	SRF 400	Expired, transfer to NSSL 8-30-90
7200077	SRF 450	Expired, transfer to NSSL 8-30-90
7200082	Cutler 71	Expired, transfer to NSSL 8-30-90
7200083	Amsoy 71	Expired, transfer to NSSL 8-30-90
7200086	SRF 150	Expired, transfer to NSSL 8-30-90
7200126	Bonus	Expired, transfer to NSSL 8-30-90
7300010	Buccaneer	Expired, transfer to NSSL 8-30-90

Sincerely,

Toni Dawn Pisano

TONI PISANO
Computer Assistant