

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Agripro, 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 (1934 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Agripro 20'



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 17th day of October in the year of our Lord one thousand nine hundred and seventy-five

Attest:

S. J. Rollin

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Earl L. Butz

Secretary of Agriculture

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1. VARIETY NAME OR TEMPORARY DESIGNATION AGRIPRO 20		2. KIND NAME Soybean		FOR OFFICIAL USE ONLY	
3. GENUS AND SPECIES NAME Glycine max		4. FAMILY NAME (Botanical) Gramineae		PV NUMBER 7500056	
5. DATE OF DETERMINATION 1973		FILING DATE 2-14-75		TIME 10 A.M.	
6. NAME OF APPLICANT(S) AGRIPRO, INC.		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Box 1668 Ames, Iowa 50010		8. TELEPHONE AREA CODE AND NUMBER (515) 232-0691	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation		10. STATE OF INCORPORATION Iowa		11. DATE OF INCORPORATION 1973	
FEE RECEIVED \$ 250		BALANCE DUE \$ —			
		FEE RECEIVED \$ 250			
		FEE RECEIVED \$ 250			

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

Dr. Wayne R. Ellingson
P. O. Box 1668
Ames, Iowa 50010

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- 13B. Exhibit B, Botanical Description of the Variety
- 13C. Exhibit C, Objective Description of the Variety
- 13D. Exhibit D, Data Indicative of Novelty
- 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.) YES NO

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

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

2/10/75
(DATE)

Wayne R. Ellingson
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

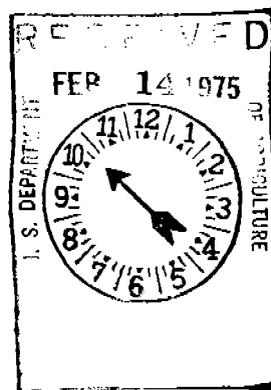
ok

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.



AGRIPRO 20

"Exhibit A"

Origin and Breeding History of the Variety

1. 'AGRIPRO 20' originated in Iowa from a hand pollinated cross between 'C1426' * 'Amsoy Phyt. 4'. The crossing was accomplished in 1968. The F1, F2, and F4 generations were advanced in a Puerto Rico winter nursery. The F3 generation and F5 plant rows were grown in Iowa. Early generations were advanced by single seed descent. AGRIPRO 20 was F4 derived. It was yield tested in 1971 through 1974.

2. In 1972 single plants were selected and grown in plant rows in 1973. Only the rows conforming to a standard type were harvested and bulked. The genetic make-up of the variety was stabilized in the seventh generation.

AGRIPRO 20

"Exhibit B"

Botanical Description of the Variety

'AGRIPRO 20' is a northern, indeterminate soybean variety of Group II. It matures 3 days later than Corsoy in Iowa. It adapts very well to areas of the Midwest where Corsoy and Amsoy 71 are grown.

AGRIPRO 20 has purple flowers and gray pubescence. The seed is yellow in color and has a brown hilum.

AGRIPRO 20 is resistant to Phytophthora Root Rot (Races 1 and 2).

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (GLYCINE MAX)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

AGRIPRO, INC.

ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)

P. O. Box 1668
Ames, Iowa 50010

FOR OFFICIAL USE ONLY

PVPO NUMBER

7500056

VARIETY NAME OR TEMPORARY DESIGNATION

AGRIPRO 20

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

1. SEED SHAPE:

1 = SPHERICAL 2 = SPHERICAL FLATTENED 3 = ELONGATE 4 = OTHER (Specify)

2. SEED COAT COLOR:

1 = YELLOW 2 = GREEN 3 = BROWN 4 = BLACK 5 = OTHER (Specify) SHADE: 1 = LIGHT 2 = MEDIUM 3 = DARK

3. SEED COAT LUSTER:

1 = DULL 2 = SHINY

4. SEED SIZE

1 9 GRAMS PER 100 SEEDS

5. HILUM COLOR:

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 = YELLOW 2 = GREEN

7. LEAFLET SIZE (See Reverse):

1 = SMALL 2 = MEDIUM 3 = LARGE

8. LEAFLET SHAPE:

1 = OVATE 2 = OBLONG 3 = LANCEOLATE 4 = ELLIPTICAL 5 = OTHER (Specify)

9. LEAF COLOR (See reverse):

1 = LIGHT GREEN 2 = MEDIUM GREEN 3 = DARK GREEN

10. FLOWER COLOR:

1 = WHITE 2 = PURPLE 3 = OTHER (Specify)

11. POD COLOR:

1 = TAN 2 = BROWN 3 = BLACK

12. POD SET:

1 = SCATTERED 2 = CONCENTRATED

13. PLANT PUBESCENCE COLOR:

1 = GRAY 2 = BROWN 3 = OTHER (Specify)

SHADE:

1 = LIGHT 2 = MEDIUM 3 = DARK

14. PLANT TYPES (See Reverse):

1 = SLENDER 2 = BUSHY 3 = INTERMEDIATE

15. PLANT HABIT:

1 = DETERMINATE 2 = INDETERMINATE 3 = OTHER (Specify)

16. HYPOCOTYL COLOR:

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:

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

Emergence Score = 5

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

BACTERIAL PUSTULE

SOYBEAN CYST

DOWNY MILDEW

PURPLE STAIN

POD AND STEM BLIGHT

ROOT KNOT

FROGEYE

STEM CANKER

PHYTO-RACE 12 PHTHORA

BROWN STEM ROT

TARGET SPOT

BROWN SPOT

BUD BLIGHT

WILDFIRE

RHIZOCTONIA ROT

OTHER (Specify)

AGRIPRO 20

Amended "Exhibit D"

Data Indicative of Novelty

Novelty is based on the unique combination of the following characters:

'AGRIPRO 20' is most similar to 'Amsoy 71', except it has (1) brown hilum color; (2) larger seed size; (3) averages 3 inches shorter; and (4) AGRIPRO 20 has been higher yielding than Amsoy 71.

AGRIPRO 1973 Iowa Tests

	<u>Yield</u>	<u>Mat</u>	<u>Ht</u>	<u>Ldg</u>
AGRIPRO 20	56.9	9-18	39.0	3.0
Amsoy 71	52.8	9-20	42.0	3.3
Mean Difference	4.1	2.0	3.0	0.3
Std. Error of Mean Difference	1.1	1.0	1.9	0.3

AGRIPRO 1974 Iowa Tests

	<u>Yield</u>	<u>Mat</u>	<u>Ht</u>	<u>Ldg</u>
AGRIPRO 20	43.7	9-33	36.0	2.3
Amsoy 71	41.2	9-34	39.3	2.3
Mean Difference	2.5	0.8	3.3	0.0
Std. Error of Mean Difference	0.8	0.3	1.3	0.4

AGRIPRO 20

"Exhibit D"

Data Indicative of Novelty

Novelty is based on the unique combination of the following characters:

'AGRIPRO 20' is very similar to its one parent, 'Amsoy Phyt. 4', except it has (1) brown hilum color; (2) larger seed size; (3) averages 2 inches shorter; and (4) is less resistant to iron chlorosis.

AGRIPRO 20 has been higher yielding than Amsoy 71, Hark, Corsoy, and Wells.

AGRIPRO 1973 Tests - Two Locations:

	<u>Yield</u>	<u>Mat</u>	<u>Ht</u>	<u>Ldg</u>
AGRIPRO 20	50.9	9-27	41	2.7
Hark	45.7	9-25	39	2.5
Corsoy	46.9	9-24	39	2.7

AGRIPRO 1974 Tests - Three Locations:

	<u>Yield</u>	<u>Mat</u>	<u>Ht</u>	<u>Ldg</u>
AGRIPRO 20	37.3	10-3	37	1.8
Wells	35.8	9-26	34	1.0
Corsoy	33.8	9-28	33	1.8

AGRIPRO 20
Exhibit D
Page 2

Iowa State 1974 Tests - Three Northern Locations:

	<u>Yield</u>	<u>Mat</u>	<u>Ht</u>	<u>Ldg</u>	<u>Emerg</u>	<u>Chlorosis</u>	<u>Seed Size</u>
AGRIPRO 20	33.0	9-22	42	2.3	5	5	2400
Amsoy 71	31.8	9-22	39	2.2	5	2	2600

7500056

02
ignerAGRIPRO 20

"Exhibit E"

Statement of Applicant's Ownership

AGRIPRO, INC. purchased Improved Variety Research and their genetic material in 1973. Their records show and AGRIPRO believes they were the original and first breeder of 'AGRIPRO 20' variety of soybeans for which we are soliciting a certificate of protection.

See attached.

02

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant shape	Amsoy 71	Petiole angle	Amsoy 71
Leaf shape	Amsoy 71	Seed size	Marshall
Leaf color	Amsoy 71	Seed shape	Amsoy 71
Leaf surface	Amsoy 71	Seedling pigmentation	Amsoy 71

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	120	2.1	39						
Name of similar variety Amsoy 71	120	2.5	41				%		

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.

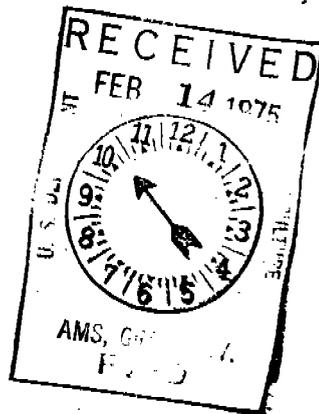
COLOR	VARIETY
Light Green	"Ada"
Medium Green	"Wilkin"
Dark Green	"Swift"

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"



AGRIPRO 20

"Exhibit E"

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See attached.

Improved Variety Research, Inc.

7500056

Harry M. Spino
Rt. 3, Adel, Iowa 50003

Dale McCubbin
Rt. 5, Marshalltown, Iowa 50158
Vice President

Willard C. Latham
Alexander, Iowa 50420
Secretary, Treasurer

Harold A. Folkerts
Rt. 2, Allison, Iowa 50602
Director, Equipment Designer

To whom it may concern:

This is to inform you that as of June 1, 1973, the following assets of Improved Variety Research, Inc. have been purchased by Agripro, Inc., according to the terms of a contract:

1. All soybean seed and genetic and research materials, processes and formulae owned, used or developed by IVR wherever situated, whether in the form of seed stocks, growing plants, or genetic materials.
2. All records and memoranda used or maintained in connection with breeding, testing, increasing or any other phase of the soybean seed breeding program.
3. All contracts, agreements, leases and rights in connection with breeding, increasing, testing, marketing and producing soybean seed strains, varieties or brands, including variety protection rights.
4. All equipment, supplies, and materials including tractors, trucks, planters, cultivators, threshers, seed bags, office equipment.
5. The brand or trade name IVR and its good will.

Sincerely,

Willard C. Latham

Willard C. Latham, Secretary-Treasurer
Improved Variety Research, Inc.