No. 7400081

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Agripro, Incorporated

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

SOYBEAN

'Pontiac'

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* 30th *day of* October *in the year of our Lord one thousand nine hundred and* seventy-four

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

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	2. KIND NAME	FOR OFFICIAL USE ONLY
Pontiac (Ex 5117)	Soybean	PV NUMBER 7400081
3. GENUS AND SPECIES NAME	4. FAMILY NAME *(Botanical)*	FILING DATE 3·26·74 / TIME 9 A.M. ~~P.M.~~
Glycine Max	Leguminosae	FEE RECEIVED $ 250.00 / BALANCE DUE $ —
	5. DATE OF DETERMINATION 1973	$ 250.00 / $ —
		$ 250.00 / $ —

6. NAME OF APPLICANT(S)	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*	8. TELEPHONE AREA CODE AND NUMBER
AGRIPRO, INC.	103 South 16th Street Ames, IA 50010	(515) 232-0691

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	Iowa	1973

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

~~Dr. Brian J. Moraghan~~ DR. WAYNE ENWINGSON
103 South 16th Street
Ames, IA 50010

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.)* [ ] YES [X] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [ ] YES [X] 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.

March 20, 1974
(DATE)

B. J. Moraghan
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

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.

EXHIBIT A

ORIGIN AND BREEDING HISTORY OF THE VARIETY

Cross: CORSOY x BEESON

Original cross was made in the winter of 1967-68 by Improved Variety Research between Corsoy and Beeson. Single seed descent was used to advance the generations. F1 and F4 generations were grown in Iowa, F2 and F3 in a winter nursery. Single plant selections were made in the F4 generation and the line was preliminary yield tested in 1971. The pure line was yield tested extensively in 1972 and 1973. Several hundred single plant selections were grown in 1973, and only those rows conforming to a standard type were bulk harvested. The variety is stable for characteristics of plant type and maturity.

EXHIBIT B

BOTANICAL DESCRIPTION OF THE VARIETY

PONTIAC (Ex 5117) is a northern, indeterminate soybean variety of maturity Group III. It matures about four days later than Beeson and it is adapted to areas of the Midwest in which Beeson and Wayne are adapted.

The flowers are purple and the pubescence gray. The seed and hilum color is yellow. The seed luster is dull. Seed size is medium.

Pontiac has better seed quality and better emergence than Beeson. Beeson has an emergence score of 5 while Pontiac has a score of 1.

FORM GR-471-1
(3-15-71)

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

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY
(SOYBEAN)

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S): AGRIPRO, INC.

ADDRESS (*Street and No., or R.F.D. No.; City, State, and ZIP Code*): 103 South 16th Street, Ames, IA 50010

FOR OFFICIAL USE ONLY

PVPO NUMBER: 137-

VARIETY NAME OR TEMPORARY DESIGNATION: Pontiac (Ex 5117)

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

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

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

SHADE (*Place a zero in box if neither light nor dark*): [ ] 1 = LIGHT 2 = DARK

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

SEED SIZE: [1 8] GRAMS PER 100 SEEDS

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

SHADE (*Place a zero in box if neither light nor dark*): [1] 1 = LIGHT 2 = DARK

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

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

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

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

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

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

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

PLANT PUBESCENCE COLOR: [1] 1 = GRAY 2 = BROWN 3 = OTHER (*Specify*)

SHADE (*Place a zero in box if neither light nor dark*): [1] 1 = LIGHT 2 = DARK

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

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

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

SEED PROTEIN: [ ] 1 = A 2 = B

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

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

DISEASE RESISTANCE TO: (*Enter zeros in box(es) where there is no special disease resistance.*)

[0] 1 = BACTERIAL PUSTULE [0] 2 = SOYBEAN CYST [0] 3 = DOWNY MILDEW [0] 4 = PURPLE STAIN [0] 5 = POD AND STEM BLIGHT [0] 6 = ROOT KNOT

[0] 7 = FROGEYE [0] 8 = STEM CANKER [0] 9 = PHYTOPHTHORA [0] 10 = BROWN STEM ROT [0] 11 = TARGET SPOT [0] 12 = BROWN SPOT

[0] 13 = BUD BLIGHT [0] 14 = WILDFIRE [0] 15 = RHIZOCTOMIA ROT [ ] 16 = OTHER (*Specify*)

SIZE OF 10 DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT (*Growth Chamber*) **AT 25° C.** (*Place a zero in box(es) where no number is entered.*)

[ ] MM. LENGTH OF SEEDLING [0] MM. LENGTH OF COTYLEDON [0] MM. WIDTH OF COTYLEDON

EMERGENCE SCORE = 1

FORM GR-471-1 (REVERSE)

Indicate which variety most closely resembles that submitted.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant shape	Beeson	Leaf carriage	Beeson
Leaf shape	Beeson	Seed size	Beeson
Leaf color	Beeson	Seed shape	Beeson
Leaf surface	Beeson	Seedling pigmentation	Corsoy

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							%		
Similar							%		
Name of similar variety									

INSTRUCTIONS

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

1. A. G. Norman, 1963, The Soybean, Academic Press, New York - London

Color	Varieties

Leaf Color: 1=Light Green
2=Medium Green

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

Size	Varieties

1.=Small
2.=Medium
3.=Large

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

Type	Varieties

1.=Slender
2.=Intermediate
3.=Bushy

EXHIBIT D

DATA INDICATIVE OF NOVELTY

To the breeder's knowledge, the soybean variety "Pontiac" (Ex 5117) most closely resembled the variety Beeson. Pontiac is similar to Beeson in that it has purple flower color and gray pubescence, but it can be distinguished from Beeson by:

(1) Pontiac has yellow hilum (Imperfect black for Beeson).

(2) Pontiac has better emergence than Beeson.

(3) Pontiac is four days later than Beeson.

(4) Pontiac has been higher yielding than Beeson. (See attached yield data.)

1971 PRELIMINARY YIELD TEST - IVR
(Average of Two Locations)

PONTIAC ~~Ex 5117~~	49.7
Amsoy	44.1
Beeson	45.2
Wayne	46.4

1972 YIELD TESTS - IVR
(Three Locations)

	Adel #1	Adel #2	Creston	Ave Yield	Mat.	Ldg.
PONTIAC ~~Ex 5117~~	51.7	41.5	55.8	49.7	9-19	1.5
Beeson	46.6	41.0	46.8	44.8	9-16	1.8
Wayne	46.3	41.2	47.7	45.1	9-23	2.3
Calland	45.2	45.6	50.9	47.2	9-22	2.3
Clark 63	38.6	42.3	47.3	42.7	9-28	3.3
Cutler	48.2	44.7	48.8	47.2	10-2	2.0

1973 YIELD TESTS - AGRIPRO, INC.
(Two Locations)

	Marshalltown	Clarence	Ave Yield	Mat.	Ldg.	Hgt.
PONTIAC ~~Ex 5117~~	52.2	49.7	51.0	9-24	3.0	37
Marshall	47.7	43.1	45.4	9-21	4.0	36
Beeson	51.5	48.4	50.0	9-20	2.8	36
Wayne	52.3	48.8	50.6	9-25	3.8	41
LSD	6.6	2.9				

1973 IOWA STATE SOYBEAN YIELD TEST
(Average of three Southern Iowa Locations)

	Yield	Mat.	Ldg.	Hgt.	Emerg. Score	Seed Size
PONTIAC ~~Ex 5117~~	43.2	9-26	3.6	45	1	2600
Beeson	41.1	9-22	3.4	44	5	2300
Wayne	42.5	9-27	3.7	50	1	2500
LSD	2.4					