

No.

8200115



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Pioneer Hi-Bred International, 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 (P.L. 55-482, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

**SOYBEAN**

'1082'



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 26th day of May in the year of our Lord one thousand nine hundred and eighty-three.

Attest:

*Kenneth A. ...*  
Acting  
Commissioner  
Plant Variety Protection Office  
Grain Division  
Agricultural Marketing Service

*John R. Block*

Secretary of Agriculture

**APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE**

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY <b>1082</b>		1b. VARIETY NAME <b>1082</b>		FOR OFFICIAL USE ONLY PV NUMBER <b>8200115</b>	
2. KIND NAME <b>Soybean</b>		3. GENUS AND SPECIES NAME <b>Glycine Max</b>		FILING DATE <b>5/11/82</b>	TIME <b>10:30</b> A.M. <input checked="" type="checkbox"/>
4. FAMILY NAME (BOTANICAL) <b>Leguminosae</b>		5. DATE OF DETERMINATION <b>October, 1975 January, 1979 (Increase)</b>		FEE RECEIVED \$ <b>500.00</b> <u>250.00</u>	DATE <b>5/11/82</b> <u>4/18/83</u>
6. NAME OF APPLICANT(S) <b>Pioneer Hi-Bred International, Inc.</b>		7. ADDRESS (Street and No. or R.F.D. No., City, State; and ZIP. Code) <b>1206 Mulberry Street Des Moines, Iowa 50308</b>		13. TELEPHONE AREA CODE AND NUMBER <b>(318)277-1733</b>	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <b>Corporation</b>		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION <b>Iowa</b>		11. DATE OF INCORPORATION <b>1926</b>	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: <b>Clark W Jennings Box 854 Cedar Falls, Iowa 50613</b> <b>Dale L. Porter 1206 Mulberry Street Des Moines, Iowa 50308</b>					

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, Novelty Statement.
  - 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
  - 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLO 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

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES?  YES  NO (If "Yes," give name of countries and dates.)

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES?  YES  NO (If "Yes," give name of countries and dates.)

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL?  YES  NO

17. The applicant(s) declare(s) that a viable sample of basic seed 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 Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

April 27, 1982  
 (DATE)

Clark Jennings  
 (SIGNATURE OF APPLICANT)

(DATE)  
 FORM GR-470 (1-78)

(SIGNATURE OF APPLICANT)

## INSTRUCTIONS

**GENERAL:** Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, 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

- 5 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.
- 13a 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.
- 13b 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 differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d 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.
- 14a 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.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.



**Attachment: 1082 Soybean (April, 1982)**

**Exhibit A. Variety 1082 evolved from a cross of Wells X Wilkin. It is an F<sub>5</sub>-derived variety which was advanced to the F<sub>5</sub> generation by modified single-seed descent. The F<sub>6</sub> progeny row of 1082 was grown in Minnesota during the summer of 1975. Subsequently, 1082 has undergone six years of extensive testing and purification and has been observed by the breeder to be uniform and stable for all plant traits from generation to generation, with no evidence of variants.**

**0.8 acre of 1082 (pedigree seed) was grown in 1979. 100 acres of parent seed stock were grown in 1981.**

**Exhibit B. Variety 1082 is most similar to the variety Evans. However 1082 has purple flowers and seeds with imperfect black hila color, whereas Evans has white flowers and seeds with yellow hila color.**

U.S. DEPARTMENT OF AGRICULTURE  
 AGRICULTURAL MARKETING SERVICE  
 LIVESTOCK, MEAT, GRAIN & SEED DIVISION  
 PLANT VARIETY PROTECTION OFFICE  
 BELTSVILLE, MARYLAND 20705

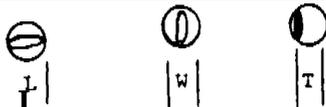
EXHIBIT C  
 (Soybean)

OBJECTIVE DESCRIPTION OF VARIETY  
 SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) <b>Pioneer Hi-Bred International, Inc.</b>	TEMPORARY DESIGNATION	VARIETY NAME <b>1082</b>
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) <b>1206 Milberry Street Des Moines, Iowa 50308</b>		FOR OFFICIAL USE ONLY
		PVPO NUMBER <b>8200115</b>

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g.,  ).

1. SEED SHAPE:



1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)  
 3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)

2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)  
 4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

2. SEED COAT COLOR: (Mature Seed)

1 = Yellow      2 = Green      3 = Brown      4 = Black      5 = Other (Specify) \_\_\_\_\_

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

1 = Dull ('Corsoy 79'; 'Braxton')      2 = Shiny ('Nebsoy'; 'Gasoy 17')

4. SEED SIZE: (Mature Seed)

Grams per 100 seeds

5. HILUM COLOR: (Mature Seed)

1 = Buff      2 = Yellow      3 = Brown      4 = Gray      5 = Imperfect Black      6 = Black      7 = Other (Specify) \_\_\_\_\_

6. COTYLEDON COLOR: (Mature Seed)

1 = Yellow      2 = Green

7. SEED PROTEIN PEROXIDASE ACTIVITY:

1 = Low      2 = High

8. SEED PROTEIN ELECTROPHORETIC BAND:

1 = Type A (SP<sup>1a</sup>)      2 = Type B (SP<sup>1b</sup>)

9. HYPOCOTYL COLOR:

1 = Green only ('Evans'; 'Davis')      2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')  
 3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')  
 4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

10. LEAFLET SHAPE:

1 = Lanceolate      2 = Oval      3 = Ovate      4 = Other (Specify) \_\_\_\_\_

## 11. LEAFLET SIZE:

c 1 | 1 = Small ('Amsoy 71'; 'A5312')      2 = Medium ('Corsoy 79'; 'Gasoy 17')  
 3 = Large ('Crawford'; 'Tracy')

## 12. LEAF COLOR:

2 | 1 = Light Green ('Weber'; 'York')      2 = Medium Green ('Corsoy 79'; 'Braxton')  
 3 = Dark Green ('Gnome'; 'Tracy')

## 13. FLOWER COLOR:

a 2 | 1 = White      2 = Purple      3 = White with purple throat

## 14. POD COLOR:

2 | 2 | 1 = Tan      2 = Brown      3 = Black

## 15. PLANT PUBESCENCE COLOR:

cl 1 | 1 = Gray      2 = Brown (Tawny)

## 16. PLANT TYPES:

1 | 1 = Slender ('Essex'; 'Amsoy 71')      2 = Intermediate ('Amcor'; 'Braxton')  
 3 = Bushy ('Gnome'; 'Govan')

## 17. PLANT HABIT:

3 | 1 = Determinate ('Gnome'; 'Braxton')      2 = Semi-Determinate ('Will')  
 3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

## 18. MATURITY GROUP:

0 | 4 | 1 = 000      2 = 00      3 = 0      4 - I      5 = II      6 = III      7 = IV      8 = V  
 9 = VI      10 = VII      11 = VIII      12 = 1x      13 = x

## 18. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

## BACTERIAL DISEASES:

c 0 | Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)

0 | Bacterial Blight (*Pseudomonas glycinea*)

0 | Wildfire (*Pseudomonas tabaci*)

## FUNGAL DISEASES:

0 | Brown Spot (*Septoria glycines*)

Frogeye Leaf Spot (*Cercospora sojina*)

a 0 | Race 1      c 0 | Race 2      0 | Race 3      0 | Race 4      0 | Race 6      0 | Other (Specify)

c 0 | Target Spot (*Corynespora cassiicola*)

0 | Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)

c 0 | Powdery Mildew (*Microsphaera diffusa*)

a 0 | Brown Stem Rot (*Cephalosporium gregatum*)

0 | Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

19. DISEASE REACTION: (Enter 0 = Not Tasted; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

Pod and Stem Blight (*Diaporthe phaseolorum* var; *sojae*)

Purple Seed Stain (*Cercospora kikuchii*)

a  Rhizoctonia Root Rot (*Rhizoctonia solani*)

Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)

c 2 / Race 1  Race 2  Race 3  Race 4  Race 5  Race 6  Race 7

Race 8  Race 9  Other (Specify) \_\_\_\_\_

VIRAL DISEASES:

a  Bud Blight (Tobacco Ringspot Virus)

Yellow Mosaic (Bean Yellow Mosaic Virus)

c  Cowpea Mosaic (Cowpea Chlorotic Virus)

c  Pod Mottle (Bean Pod Mottle Virus)

Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

Soybean Cyst Nematode (*Heterodera glycines*)

Race 1  Race 2  Race 3  Race 4  Other (Specify) \_\_\_\_\_

Lance Nematode (*Hoplaimus Colombus*)

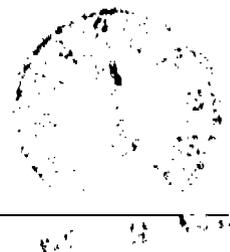
a  Southern Root Knot Nematode (*Meloidogyne incognita*)

Northern Root Knot Nematode (*Meloidogyne Hapla*)

Peanut Root Knot Nematode (*Meloidogyne arenaria*)

Reniform Nematode (*Rotylenchulus reniformis*)

OTHER DISEASE NOT ON FORM (Specify): \_\_\_\_\_



20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tasted; 1 = Susceptible; 2 = Resistant)

c 2 / Iron Chlorosis on Calcareous Soil

Other (Specify) \_\_\_\_\_

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

Mexican Bean Beetle (*Epilachna varivestis*)

Potato Leaf Hopper (*Empoasca fabae*)

Other (Specify) \_\_\_\_\_

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	Wells	Seed Coat Luster	Wells
Leaf Shape	Wells	Seed Size	Evans
Leaf Color	Evans	Seed Shape	Evans
Leaf Size	Wells	Seedling Pigmentation	Wells

U.S. DEPARTMENT OF AGRICULTURE  
 AGRICULTURAL MARKETING SERVICE  
 LIVESTOCK, MEAT, GRAIN & SEED DIVISION  
 PLANT VARIETY PROTECTION OFFICE  
 BELTSVILLE, MARYLAND 20705

EXHIBIT C  
 (Soybean)

**OBJECTIVE DESCRIPTION OF VARIETY**  
**SOYBEAN (*Glycine max* L.)**

<b>NAME OF APPLICANT(S)</b>	<b>TEMPORARY DESIGNATION</b>	<b>VARIETY NAME</b>
<b>Pioneer Hi-Bred International, Inc.</b>		<b>1082</b>
<b>ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code)</b>		<b>FOR OFFICIAL USE ONLY</b>
<b>1206 Milberry Street</b>		<b>PVPO NUMBER</b>
<b>Des Moines, Iowa 50308</b>		<b>8200115</b>

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (eg, ).

1. SEED SHAPE:

<input type="text" value="1"/>			
	↓ L ↓ W	↓ L ↓ W	↓ L ↓ T

1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)  
 2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)  
 3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)  
 4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

2. SEED COAT COLOR: (Mature Seed)

1 = Yellow      2 = Green      3 = Brown      4 = Black      5 = Other (Specify) \_\_\_\_\_

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

1 = Dull ('Corsoy 79'; 'Braxton')      2 = Shiny ('Nebsoy'; 'Gasoy 17')

4. SEED SIZE: (Mature Seed)

Grams per 100 seeds

5. HILUM COLOR: (Mature Seed)

1 = Buff      2 = Yellow      3 = Brown      4 = Gray      5 = Imperfect Black      6 = Black      7 = Other (Specify) \_\_\_\_\_

6. COTYLEDON COLOR: (Mature Seed)

1 = Yellow      2 = Green

7. SEED PROTEIN PEROXIDASE ACTIVITY:

1 = Low      2 = High

8. SEED PROTEIN ELECTROPHORETIC BAND:

1 = Type A (SP1<sup>a</sup>)      2 = Type B (SP1<sup>b</sup>)

9. HYPOCOTYL COLOR:

1 = Green only ('Evans'; 'Davis')      2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')  
 3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')  
 4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

10. LEAFLET SHAPE:

1 = Lanceolate      2 = Oval      3 = Ovate      4 = Other (Specify) \_\_\_\_\_

## 23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/ POD
				CM Width	CM Length	% Protein	% Oil		
Submitted 1082	116	1.7	102						
Name of Similar Variety vans	113	2.3	96						

## PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBT1-A<sub>2</sub> in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

