

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Peterson Soybean Seed Division
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 *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 (STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'P83-14'

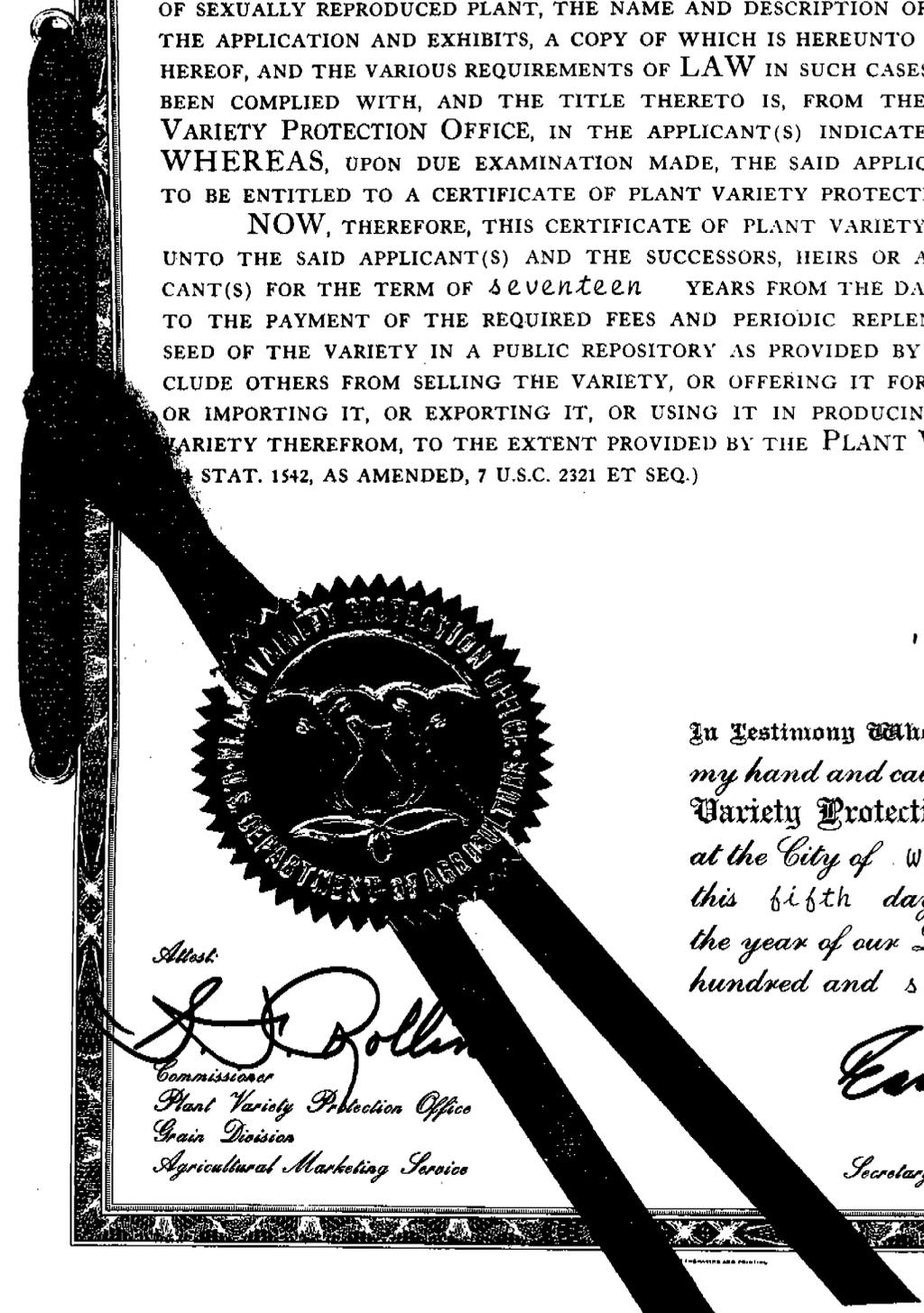
In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this fifth day of March in the year of our Lord one thousand nine hundred and seventy-six

Attest:

S. J. Rollins
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 <u>P83-14</u>		2. KIND NAME <u>Soybean</u>		FOR OFFICIAL USE ONLY PV NUMBER <u>73063</u>	
3. GENUS AND SPECIES NAME <u>Glycine Max.</u>		4. FAMILY NAME (Botanical) <u>Leguminosae</u>		FILING DATE <u>2.22.73</u>	TIME <u>12 noon</u>
		5. DATE OF DETERMINATION <u>January, 1972</u>		FEE RECEIVED \$ <u>250</u>	BALANCE DUE \$ <u>—</u>
				\$ <u>250</u>	\$ <u>—</u>
				\$ <u>250</u>	\$ <u>—</u>
6. NAME OF APPLICANT(S) <u>Peterson Soybean Seed Division, Pioneer Hi-Bred International, Inc.</u>		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) <u>3261 W. Airline Highway Waterloo, Iowa 50701</u>		8. TELEPHONE AREA CODE AND NUMBER <u>(319) 234-0335</u>	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <u>Corporation</u>			10. STATE OF INCORPORATION <u>Iowa</u>		11. DATE OF INCORPORATION <u>May 7, 1926</u>

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

Dr. Clark Jennings
Peterson Soybean Seed Division
3261 W. Airline Highway
Waterloo, Iowa 50701

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.

February 21, 1975
(DATE)

Dr. Clark Jennings
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)



PIONEER HI-BRED INTERNATIONAL, INC.
PETERSON SOYBEAN SEED DIVISION
3261 WEST AIRLINE HIGHWAY, WATERLOO, IOWA 50701/PHONE (AC 319) 234-0335

Revised attachments (Application No. 73063) for P83-14 Soybeans, October 27, 1975

- Exhibit A. P83-14 originated from a cross of Amsoy x Beeson. It is an F_3 derived line in the F_0 . It has been tested 7 years. In the third year of test it was tested for Phytophthora rot resistance. In winter 1973-74, approximately 73 percent of the plants in P83-14 were found to be homozygous resistant to Phytophthora root rot. In fall, 1974, P83-14 was purified and is now 100% homozygous resistant. It is uniform within for maturity, height, pubescence and hila color. It was increased in Iowa in 1972, in 1972-73 in Puerto Rico and 1973 in Iowa.
- Exhibit B. P83-14 has purple flowers, gray pubescence, brown pods, shiny seed coat luster, yellow seed coat and yellow hilum. It is uniform in growth and in plant and seed characteristics. P83-14 yields more than Amsoy or Amsoy 71, matures the same, is two inches taller with slightly larger seed size. It is higher in protein and lodges slightly less than Amsoy 71.
- Exhibit D. As compared with Amsoy 71, P83-14 is equal in maturity, is 2 inches taller, and stands better. It has slightly larger seeds and is higher in protein than Amsoy 71. It has an Iodine number of 134.1. A 10 day old seedling of Peterson P83-14 grown under constant light in a growth chamber (500 foot candles using VHO Gro Lux lights) at 25 degrees centigrade and a humidity between 85 and 90% has a seedling length of 248 MM, a cotyledon length of 20 MM and a cotyledon width of 10 MM as compared with Amsoy 71 at 206 MM, 20 MM and 10 MM respectively. Both P83-14 and Amsoy 71 are 100% resistant to Phytophthora root rot (Races 1 and 2).
- Exhibit E. Dr. C.R. Weber was acting Director of Research when he developed P83-14 for the Peterson Soybean Seed Division, Pioneer Hi-Bred International, Inc.



PetersonTM
BRAND
Seed

Peterson Seed Company warrants that seeds sold have been labeled as required under State and Federal Laws and that they conform to the label as required under State and Federal Seed Laws and that they conform to the label descriptions. No liability hereunder shall be asserted unless the buyer or user reports to the warrantor within a reasonable period after discovery (not to exceed 30 days), any conditions that might lead to a complaint. OUR LIABILITY ON THIS



PIONEER HI-BRED INTERNATIONAL, INC.
PETERSON SOYBEAN SEED DIVISION
3261 WEST AIRLINE HIGHWAY, WATERLOO, IOWA 50701/PHONE (AC 319) 234-0335

October 27, 1975

Mr. Robert J. Snyder
Examiner, Plant Variety
Protection Office
Grain Division
6525 Belcrest Road
Hyattsville, Maryland 20782

EXHIBIT D RJS

Dear Mr. Snyder:

Subject: Application No. 73063, Soybean, 'P83-14'

During the 1975 growing season, we gave P83-14 an extensive and much closer examination than it had been previously given.

This scrutiny revealed to us that P83-14 has brown pods as compared to Amsoy 71's tan pods. The pod color of P83-14 closely matches that of Beeson, one of its parental lines.

The original application submitted in 1972 by C.R. Weber was assumed correct and all subsequent correspondence assumed same.

Enclosed are revised exhibits B and C correcting the pod color discrepancies.

If this application has been considered abandoned, would you please reactivate it in light of these new findings. Appropriate fees will be sent pending your advisement.

Thanking you, I am

Sincerely yours,

PETERSON SOYBEAN SEED DIVISION
Pioneer Hi-Bred International, Inc.


Dr. Clark W. Jennings
Director of Research

CWJ:bp
Enc.



PetersonTM
BRAND
Seed

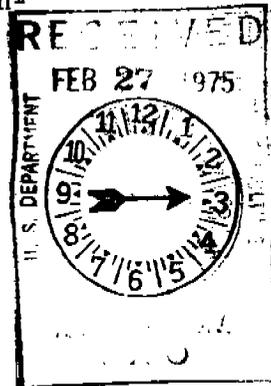
Peterson Seed Company warrants that seeds sold have been labeled as required under State and Federal Laws and that they conform to the label as required under State and Federal Seed Laws and that they conform to the label descriptions. No liability hereunder shall be asserted unless the buyer or user reports to the warrantor within a reasonable period after discovery (not to exceed 30 days), any conditions that might lead to a complaint. OUR LIABILITY ON THIS

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.



OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (GLYCINE MAX)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S) **Pioneer Hi-Bred
Peterson Soybean Seed Division, International, Inc.**
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)
**3261 West Airline Highway
Waterloo, IA 50701**

FOR OFFICIAL USE ONLY

PVPO NUMBER

73063

VARIETY NAME OR TEMPORARY DESIGNATION

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

1. SEED SHAPE: <input type="checkbox"/> 1 = SPHERICAL <input checked="" type="checkbox"/> 2 = SPHERICAL FLATTENED <input type="checkbox"/> 3 = ELONGATE <input type="checkbox"/> 4 = OTHER (Specify)																			
2. SEED COAT COLOR: <input checked="" type="checkbox"/> 1 = YELLOW <input type="checkbox"/> 2 = GREEN <input type="checkbox"/> 3 = BROWN <input type="checkbox"/> 4 = BLACK <input type="checkbox"/> 5 = OTHER (Specify) SHADE: <input checked="" type="checkbox"/> 1 = LIGHT <input type="checkbox"/> 2 = MEDIUM <input type="checkbox"/> 3 = DARK																			
3. SEED COAT LUSTER: <input checked="" type="checkbox"/> 1 = DULL <input type="checkbox"/> 2 = SHINY	4. SEED SIZE: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 GRAMS PER 100 SEEDS <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10																		
5. HILUM COLOR: <input checked="" type="checkbox"/> 1 = BUFF <input type="checkbox"/> 2 = YELLOW <input type="checkbox"/> 3 = BROWN <input type="checkbox"/> 4 = GRAY <input type="checkbox"/> 5 = IMPERFECT BLACK <input type="checkbox"/> 6 = BLACK <input type="checkbox"/> 7 = OTHER (Specify) SHADE: <input checked="" type="checkbox"/> 1 = LIGHT <input type="checkbox"/> 2 = MEDIUM <input type="checkbox"/> 3 = DARK																			
6. COTYLEDON COLOR: <input checked="" type="checkbox"/> 1 = YELLOW <input type="checkbox"/> 2 = GREEN	7. LEAFLET SIZE (See Reverse): <input checked="" type="checkbox"/> 1 = SMALL <input type="checkbox"/> 2 = MEDIUM <input type="checkbox"/> 3 = LARGE																		
8. LEAFLET SHAPE: <input checked="" type="checkbox"/> 1 = OVATE <input type="checkbox"/> 2 = OBLONG <input type="checkbox"/> 3 = LANCEOLATE <input type="checkbox"/> 4 = ELLIPTICAL <input type="checkbox"/> 5 = OTHER (Specify)																			
9. LEAF COLOR (See reverse): <input checked="" type="checkbox"/> 1 = LIGHT GREEN <input type="checkbox"/> 2 = MEDIUM GREEN <input type="checkbox"/> 3 = DARK GREEN																			
10. FLOWER COLOR: <input checked="" type="checkbox"/> 1 = WHITE <input type="checkbox"/> 2 = PURPLE <input type="checkbox"/> 3 = OTHER (Specify)																			
11. POD COLOR: <input checked="" type="checkbox"/> 1 = TAN <input type="checkbox"/> 2 = BROWN <input type="checkbox"/> 3 = BLACK																			
12. POD SET: <input checked="" type="checkbox"/> 1 = SCATTERED <input type="checkbox"/> 2 = CONCENTRATED																			
13. PLANT PUBESCENCE COLOR: <input checked="" type="checkbox"/> 1 = GRAY <input type="checkbox"/> 2 = BROWN <input type="checkbox"/> 3 = OTHER (Specify) SHADE: <input checked="" type="checkbox"/> 1 = LIGHT <input type="checkbox"/> 2 = MEDIUM <input type="checkbox"/> 3 = DARK																			
14. PLANT TYPES (See Reverse): <input checked="" type="checkbox"/> 1 = SLENDER <input type="checkbox"/> 2 = BUSHY <input type="checkbox"/> 3 = INTERMEDIATE																			
15. PLANT HABIT: <input checked="" type="checkbox"/> 1 = DETERMINATE <input type="checkbox"/> 2 = INDETERMINATE <input type="checkbox"/> 3 = OTHER (Specify)																			
16. HYPOCOTYL COLOR: <input type="checkbox"/> 1 = GREEN <input type="checkbox"/> 2 = PURPLE																			
17. SEED PROTEIN: <input type="checkbox"/> 1 = A <input type="checkbox"/> 2 = B																			
18. NUMBER OF DAYS TO FLOWERING (Place a zero in first box (e.g. 0 9) when days are 9 or less.) <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9	19. MATURITY GROUP: <input checked="" type="checkbox"/> 1 = 00 <input type="checkbox"/> 2 = 0 <input type="checkbox"/> 3 = I <input type="checkbox"/> 4 = II <input type="checkbox"/> 5 = III <input type="checkbox"/> 6 = IV <input type="checkbox"/> 7 = V <input type="checkbox"/> 8 = VI <input type="checkbox"/> 9 = VII <input type="checkbox"/> 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: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 MM. LENGTH OF COTYLEDON: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 MM. WIDTH OF COTYLEDON: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9																			
21. DISEASE: (Enter 0 - Not Tested; 1 - Susceptible; 2 - Resistant) <table border="0"> <tr> <td><input type="checkbox"/> BACTERIAL PUSTULE</td> <td><input type="checkbox"/> SOYBEAN CYST</td> <td><input type="checkbox"/> DOWNY MILDEW</td> <td><input type="checkbox"/> PURPLE STAIN</td> <td><input type="checkbox"/> POD AND STEM BLIGHT</td> <td><input type="checkbox"/> ROOT KNOT</td> </tr> <tr> <td><input type="checkbox"/> FROGEYE</td> <td><input type="checkbox"/> STEM CANKER</td> <td><input checked="" type="checkbox"/> PHYTO-PHTHORA</td> <td><input type="checkbox"/> BROWN STEM ROT</td> <td><input type="checkbox"/> TARGET SPOT</td> <td><input type="checkbox"/> BROWN SPOT</td> </tr> <tr> <td><input type="checkbox"/> BUD BLIGHT</td> <td><input type="checkbox"/> WILDFIRE</td> <td><input type="checkbox"/> RHIZOCTONIA ROT</td> <td><input type="checkbox"/> OTHER (Specify)</td> <td></td> <td></td> </tr> </table>		<input type="checkbox"/> BACTERIAL PUSTULE	<input type="checkbox"/> SOYBEAN CYST	<input type="checkbox"/> DOWNY MILDEW	<input type="checkbox"/> PURPLE STAIN	<input type="checkbox"/> POD AND STEM BLIGHT	<input type="checkbox"/> ROOT KNOT	<input type="checkbox"/> FROGEYE	<input type="checkbox"/> STEM CANKER	<input checked="" type="checkbox"/> PHYTO-PHTHORA	<input type="checkbox"/> BROWN STEM ROT	<input type="checkbox"/> TARGET SPOT	<input type="checkbox"/> BROWN SPOT	<input type="checkbox"/> BUD BLIGHT	<input type="checkbox"/> WILDFIRE	<input type="checkbox"/> RHIZOCTONIA ROT	<input type="checkbox"/> OTHER (Specify)		
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<input type="checkbox"/> BUD BLIGHT	<input type="checkbox"/> WILDFIRE	<input type="checkbox"/> RHIZOCTONIA ROT	<input type="checkbox"/> OTHER (Specify)																

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	Slightly smaller than Amsoy 71
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	LOGGING SCORE	PLANT HEIGHT	LEAF SIZE		CONTENT		AVERAGE NO. OF PODS PER PLANT	IODINE NO.
				Width	Length	Protein	Oil		
P83-14 Submitted	119	2.2	43	--	--	41.2	21.9 %	Depends on	134.1
Name of similar variety Amsoy	119	2.3	41	--	--	40.1	22.0	Planting Time	134.0

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"

