



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Asgrow Seed Company

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

'A3860'

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 December in
the year of our Lord one thousand nine
hundred and seventy-seven

Attest:

S. J. Rollins
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

B. B. Burdick
Secretary of Agriculture

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY XP 3855	1b. VARIETY NAME A3860	FOR OFFICIAL USE ONLY	
		PV NUMBER 7700100	
2. KIND NAME Soybean	3. GENUS AND SPECIES NAME Glycine max	FILING DATE 8-30-77	TIME 3:30 P.M.
		FEE RECEIVED \$ 250.00	DATE 8-30-77
4. FAMILY NAME (BOTANICAL) Leguminosae	5. DATE OF DETERMINATION October 1975	\$ 250.00	8-30-77
		\$ 250.00	10-27-77
6. NAME OF APPLICANT(S) Asgrow Seed Company	7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Kalamazoo, Michigan 49001	8. TELEPHONE AREA CODE AND NUMBER (616) 385-6605	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Delaware	11. DATE OF INCORPORATION March 22, 1968	

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

John A. Batcha
Asgrow Seed Company
Unit 9630-190-1
7000 Portage Road
Kalamazoo, Michigan 49001

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 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

15. Does the applicant(s) agree to the publication of his/her (their) name(s) and address in the Official Journal? YES NO

16. The applicant(s) declare(s) 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) 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.

August 22, 1977
(DATE)

John A. Batcha
(SIGNATURE OF APPLICANT)
John A. Batcha 1

(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, National Agricultural Library, 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 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 or published or the certificate has been issued. However, if the applicant specifies "NO", he may change his choice. (See Section 180.15 of the Regulations and Rules of Practice.)

EXHIBIT A

Origin and Breeding History of the Variety

- 1972 Original cross made at Ames, Iowa
Parents: Williams x Essex
Cross Number: Q327
- 1972-1973 (Fall-Winter) 10 F₁ plants grown at Delray Beach, Fla.,
under lighted conditions.
- 1973 (Winter-Spring) F₂ Bulk Populations grown at Delray
Beach, Fla.
- 1973 (Summer) F₃ Bulk Populations grown at Ames, Ia.,
single pod picked from each plant
in bulk populations.
- 1973 (Fall-Winter) F₄ Bulk Populations of Q327 grown at
Delray Beach, Fla., 200 plants were
harvested and threshed individually.
- 1974 200 F₅ progeny rows of cross Q327 were
grown at Ames. Row Q327-C75-4255
was selected for its uniformity,
pod set, standability and overall
desirable characteristics.
- 1975 Q327-C75-4255 was grown in preliminary
yield tests at Ames, Iowa, and
Oxford, Ind. Q327-C75-4255 was
selected for its high yield and other
agronomic characteristics.
Q327-C75-4255 was found to be
uniform in all yield plots and was
determined to be a true-breeding
variety in October, 1975.
- 1976 Q327-C75-4255 was evaluated in Advanced
Strain III tests at eight locations
across the Midwest. It again was
selected for its high yield, standability
and overall performance.
- 34 pounds of Breeders Seed was produced
at Oxford. The Breeder seedlot was
carefully examined at flowering and
maturity for off-types. Less than .1%
off-types were found and these were rogued.

Soybean ~~XP3855~~

'A3860'

1976-77 (Fall-Winter) Breeder seed was sent to Delray Beach, Fla., and Belize, Central America, for production of Basic seed. Total production of Basic seed of Q327-C75-4255 amounted to 1,650 pounds. The Basic seed fields were checked for off-type plants and found to be uniform. 200 plants were threshed individually.

The experimental line designation, ~~XP3855~~ 'A3860' was assigned to Q327-C75-4255.

1977

25 acres of Foundation seed of ~~XP3855~~ 'A3860' is being grown at Oxford, Ind.

'A3860' ~~XP3855~~ was entered into Advanced Strain Tests at eight locations across the Midwest. It was also entered in State Tests in Illinois, Indiana, Ohio and Missouri.

200 plant rows of ~~XP3855~~ 'A3860' are being grown in Oxford, Ind., to verify purity.

Asgrow Seed Company
Soybean, ~~W385~~ A3860

7700100

EXHIBIT B

To our knowledge, the soybean variety that most closely resembles ~~W385~~^{A3860} is Williams. The plant characteristic that distinguishes ~~W385~~ from ~~W385~~^{A3860} Williams includes but is not restricted to leaf color. ~~W385~~^{A3860} has a dark green leaf closest to color 137A on the Royal Horticultural Society Color Chart. Williams has a medium green leaf closest to color 139A on the Royal Horticultural Society Color Chart.

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (GLYCINE MAX)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

Asgrow Seed Company

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

Kalamazoo, Michigan 49001

FOR OFFICIAL USE ONLY

PVPO NUMBER **7700100**

VARIETY NAME OR TEMPORARY DESIGNATION

A3860

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

18 GRAMS PER 100 SEEDS

5. HILUM COLOR:

6 = BUFF 2 = YELLOW 3 = BROWN 4 = GRAY 5 = IMPERFECT BLACK 6 = BLACK 7 = OTHER (Specify) SHADE: 2 = LIGHT 2 = MEDIUM 3 = DARK

6. COTYLEDON COLOR:

2 ^{R/S} 1 = YELLOW 2 = GREEN

7. LEAFLET SIZE (See Reverse):

2 = 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):

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

10. FLOWER COLOR:

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

11. POD COLOR:

1 = TAN 2 = BROWN 3 = BLACK

12. POD SET:

2 = 1 = SCATTERED 2 = CONCENTRATED

13. PLANT PUBESCENCE COLOR:

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

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:

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.) when days are 9 or less.)

5 7

19. MATURITY GROUP:

5 = 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.) when size is 9 mm. or less.)

1 2 8 MM. LENGTH OF SEEDLING

2 1 MM. LENGTH OF COTYLEDON

1 1 MM. WIDTH OF COTYLEDON

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

<input type="checkbox"/> 0 BACTERIAL PUSTULE	<input checked="" type="checkbox"/> 1 SOYBEAN CYST	<input type="checkbox"/> 0 DOWNY MILDEW	<input type="checkbox"/> 0 PURPLE STAIN	<input type="checkbox"/> 0 POD AND STEM BLIGHT	<input type="checkbox"/> 0 ROOT KNOT
<input type="checkbox"/> 0 FROGEYE	<input type="checkbox"/> 0 STEM CANKER	<input checked="" type="checkbox"/> 1 PHYTO-PHTHORA	<input type="checkbox"/> 0 BROWN STEM ROT	<input type="checkbox"/> 0 TARGET SPOT	<input type="checkbox"/> 0 BROWN SPOT
<input checked="" type="checkbox"/> 1 BUD BLIGHT	<input type="checkbox"/> 0 WILDFIRE	<input type="checkbox"/> 0 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	Williams	Petiole angle	Williams
Leaf shape	"	Seed size	Beeson
Leaf color	Essex	Seed shape	Williams
Leaf surface	Williams	Seedling pigmentation	"

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY:

VARIETY	NO. OF DAYS TO MATURITY	LODGING SCORE	PLANT HEIGHT inches	LEAF SIZE		CONTENT (1)		AVERAGE NO. OF PODS PER PLANT	IODINE NO.
				Width	Length	Protein	Oil		
A3860 Submitted XP3855	150	1.7	36	13	9		%	101	
Name of similar variety Williams	151	1.7	36	13	9			93	

(1) Tests being conducted. Information will be furnished when data is available.

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"