



# 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 (ACT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA

'Dawn'

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 24th day of August in  
the year of our Lord one thousand nine  
hundred and seventy-seven

Attest:

*J. J. Rollin*  
Commissioner  
Plant Variety Protection Office  
Grain Division  
Agricultural Marketing Service

*J. B. Berglund*  
Secretary of Agriculture

**APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE**

INSTRUCTIONS: See Reverse.

|   |  |   |  |   |  |
|---|--|---|--|---|--|
| 1a. TEMPORARY DESIGNATION OF VARIETY<br>DAWN <i>7/14</i> 8/16/77<br><del>XP-657</del>   |  | 1b. VARIETY NAME  |  | FOR OFFICIAL USE ONLY                               |  |
| 2. KIND NAME<br>Garden Pea  |  | 3. GENUS AND SPECIES NAME<br>Pisum sativum  |  | PV NUMBER<br>7700069                                |  |
| 4. FAMILY NAME (BOTANICAL)<br>Leguminosae   |  | 5. DATE OF DETERMINATION<br>July, 1972  |  | FILING DATE<br>5-31-77                              |  |
| 6. NAME OF APPLICANT(S)<br>Asgrow Seed Company  |  | 7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)<br>Kalamazoo, Michigan 49001   |  | TIME<br>11:00 <sup>A.M.</sup> <sub>P.M.</sub>       |  |
| 9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.)<br>Corporation |  | 10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION<br>Delaware   |  | 8. TELEPHONE AREA CODE AND NUMBER<br>(616) 385-6605 |  |
| 11. DATE OF INCORPORATION<br>March 22, 1968   |  | 12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:<br>John A. Batcha<br>Asgrow Seed Company<br>7000 Portage Road<br>Unit 9630-190-1<br>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.

3-9-77  
(DATE)

John A. Batcha  
(SIGNATURE OF APPLICANT)  
John A. Batcha 00001

(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 <sup>DAWN</sup>~~XP-C57~~ Pea

The original cross, Dart x Early Sweet 20, was made in 1965 and <sup>DAWN</sup>~~XP-C57~~ was developed by straight selection from this cross. Single plant selections were made through F<sub>6</sub> in 1971. In July of 1972, it was determined that this line was a unique item worthy of increase and extensive trials. The first increase was made in Mexico during the winter of 1972-73 and a further increase was made at Twin Falls in 1973. The line was designated as <sup>DAWN</sup>~~XP-C57~~ in July, 1973.

Since 1973, the line has been in extensive trials and has been further refined through mass selection. As a final test of homozygosity, approximately 400 progenies were grown from single plant selections. There was practically no variation between progenies, but any progeny which was suspect in any way was removed. The field was then harvested as a bulk, and this has become our Breeder's seed.

<sup>DAWN</sup>~~XP-C57~~ is to our knowledge, a stable, true breeding line. We know of no variants.

JDA  
1/6/77



EXHIBIT B ADDITION

7700069

DAWN  
~~XP-C57~~-----PEA APPLICATION # 7700069

Following is a table summarizing four years' data from the Yield Trials at Twin Falls, Idaho. This is to compare ~~XP-C57~~ and Spring.

| Year              | <u>DAWN</u><br><del>XP-C57</del> |                 |             | Spring        |                 |             |
|-------------------|----------------------------------|-----------------|-------------|---------------|-----------------|-------------|
|                   | Tender-ometer                    | Ave. Sieve Size | Degree Days | Tender-ometer | Ave. Sieve Size | Degree Days |
| 1974              | 105                              | 3.14            | 1122        | 106           | 4.22            | 1108        |
| 1975              | 96                               | 3.32            | 1120        | 98            | 4.34            | 1120        |
| 1976              | 100                              | 3.15            | 966         | 96            | 4.46            | 956         |
| 1977              | 97                               | 3.16            | 1115        | 96            | 3.91            | 1128        |
| Four Year Average | 99.5                             | 3.19            | 1081        | 99.0          | 4.23            | 1078        |

The four-year average tenderometer reading was practically identical for the two varieties indicating the same maturity and Spring is a full sieve size larger than ~~XP-C57~~.  
DAWN

In common usage, the term "Freezer" refers to a dark green pea, and the term, "Canner" refers to a light or grey-green pea. The color difference is conditioned by a single gene.

Samples of both Spring and ~~XP-C57~~ DAWN were canned under a standardized procedure in our variety evaluation program. Color of the canned samples was determined by use of Royal Horticultural Society Color Charts. The results are as follows:

| <u>VARIETY</u>                   | <u>COLOR</u> | <u>COLOR GROUP</u> |
|----------------------------------|--------------|--------------------|
| Spring                           | 152 B        | Yellow-Green       |
| <del>XP-C57</del><br><u>DAWN</u> | 195 B        | Greyed-Green       |

J.D. Atkin  
July 21, 1977

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UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

GRAIN DIVISION  
HYATTSVILLE, MARYLAND 20782

OBJECTIVE DESCRIPTION OF VARIETY

PEA (PISUM SATIVUM)

|   |   |
|---|---|
| NAME OF APPLICANT(S)<br><b>Asgrow Seed Company</b>  | VARIETY NAME OR TEMPORARY DESIGNATION<br><b>DAWN<br/>XP-C57</b> |
| ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)<br><b>Kalamazoo, Michigan 49001</b> | FOR OFFICIAL USE ONLY<br>PVPO NUMBER<br><b>7700069</b>          |

Place the appropriate number that describes the varietal character in the boxes below.  
Place a zero in first box (e.g.  or ) when number is either 99 or less or 9 or less.

1. TYPE:

1 = GARDEN    2 = FIELD    3 = EDIBLE-PODDED

2. MATURITY:

Node number of first bloom:     No. of days to processing     Heat Units

No. of days Earlier than     1 = ALASKA WR    2 = THOMAS LAXTON WR    3 = LITTLE MARVEL

No. of days Later than     4 = WANDO    5 = ALDERMAN WR    6 = AUSTRIAN WINTER

3. PLANT HEIGHT:

CM. HIGH

Cm. Shorter than     } 1 = ALASKA WR    2 = THOMAS LAXTON WR    3 = LITTLE MARVEL

Cm. Taller than     } 4 = WANDO    5 = ALDERMAN WR    6 = AUSTRIAN WINTER

4. VINE:

Habit: 1 = DETERMINATE    2 = INDETERMINATE     Stockiness: 1 = SLIM (Alaska)    3 = HEAVY (Alderman)  
2 = MEDIUM (Thomas Laxton WR)

Branching: 1 = NONE (Alaska)    2 = 1-2 BRANCHES (Little Marvel)    3 = MORE THAN 2 BRANCHES (Dwarf Gray Sugar)

Internodes: 1 = STRAIGHT    2 = ZIG ZAG     NUMBER OF NODES

5. LEAFLETS:

Color: 1 = LIGHT GREEN (Alaska WR)    2 = MED. GREEN (Thomas Laxton WR)    3 = DARK GREEN (Alderman)  
4 = OTHER (Specify)

Wax: 1 = NONE    2 = LIGHT    3 = MEDIUM    4 = HEAVY     1 = NOT MARBLED    2 = MARBLED (Alaska)

Number of leaflet pairs: 1 = NOT PAIRED    2 = ONE    3 = TWO    4 = THREE OR MORE

6. STIPULES:

1 = LACKING    2 = PRESENT     1 = NOT CLASPING    2 = CLASPING

1 = NOT MARBLED    2 = MARBLED     Size (Compared with leaflets): 1 = SMALLER    2 = SAME  
3 = LARGER

Color (Compared with leaflets): 1 = LIGHTER    2 = SAME    3 = DARKER

7. FLOWER COLOR:

VENATION     STANDARD     WING     KEEL } 1 = WHITE    2 = GREENISH    3 = LAVENDER  
4 = PURPLE    5 = RED  
6 = OTHER (Specify)

## 8. PODS:

7700069

2 Shape: 1 = STRAIGHT 2 = SLIGHTLY CURVED  2 End: 1 = POINTED (Alderman) 2 = BLUNT (Alaska)  
 1 Color: 1 = LIGHT GREEN (Alaska WR) 2 = MEDIUM GREEN 3 = DARK GREEN (Alderman)  
 1 Color: 4 = OTHER (Specify) \_\_\_\_\_  
 1 Surface: 1 = SMOOTH 2 = ROUGH  1 Surface: 1 = SHINY 2 = DULL  
 3 Borne: 1 = SINGLE 2 = DOUBLE 3 = SINGLE AND DOUBLE 4 = SINGLE, DOUBLE, & TRIPEE  
 5 = DOUBLE & TRIPLE 6 = TRIPLE 7 = OTHER (Specify) \_\_\_\_\_  
 0  7 CM. LENGTH  1  2 MM. WIDTH (Between sutures)  0  7 NO. SEEDS PER POD

## 9. SEEDS (95--100 Tenderometer):

1 Color: 1 = LIGHT GREEN 2 = GREEN 3 = DARK GREEN 4 = OTHER (Specify) \_\_\_\_\_  
 Seive: %  1  2  1  5  2  6  2  7  1  9  0  1     3  2  9 AVERAGE

## SEEDS (Dry, Mature):

1 Shape: 1 = FLATTENED 2 = ANGULAR 3 = OVAL 4 = ROUNDED  
 3 Surface: 1 = SMOOTH 2 = DIMPLED  2 Surface: 1 = SHINY 2 = DULL  
 3 = WRINKLED  
 1 Color Pattern: 1 = MONOCOLOR 2 = MOTTLED 3 = STRIPED 4 = DOTTED  
 4 Primary Color: { 1 = CREAMY-WHITE 2 = CREAM & GREEN 3 = LIGHT GREEN 4 = MEDIUM GREEN  
 5 = DARK GREEN 6 = BLUE-GREEN 7 = YELLOW 8 = BROWN 9 = RED  
 Secondary Color: { 10 = GRAY 11 = BLACK  
 2 Hilum Floor Color: 1 = WHITE 2 = TAN  1 Cotyledon Color: 1 = GREEN 2 = YELLOW 3 = ORANGE  
 3 = BLACK

1  9 GRAMS PER 100 SEEDS

## 10. DISEASE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

2 FUSARIUM WILT  1 NEAR-WILT  0 DOWNY MILDEW  
 0 ASCOCHYTA BLIGHT  0 POWDERY MILDEW  0 BACTERIAL BLIGHT  
 0 MOSAIC  0 PEA ENATION MOSAIC  0 YELLOW BEAN MOSAIC  
 OTHER (Specify) \_\_\_\_\_

## 11. INSECT: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

0 APHIDS  OTHER (Specify) \_\_\_\_\_

## 12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

| CHARACTER  | NAME OF VARIETY | CHARACTER         | NAME OF VARIETY |
|------------|-----------------|-------------------|-----------------|
| Leafiness  | Spring          | Fresh Seed Color  | No. 4683        |
| Leaf Color | No. 4683        | Mature Seed Color | No. 4683        |
| Pod Color  | No. 4683        | Seed Shape        | No. 4683        |
| Pod Shape  | No. 4683        | Plant Habit       | Spring          |

## COMMENTS:

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EXHIBIT D--Additional Description of XP-C57 Pea

~~XP-C57~~<sup>DAWN</sup> is an extremely early sweet pea. It is definitely earlier than any Alaska or Alsweet varieties with which we are familiar. In fact, the only variety which, to our knowledge, is as early as ~~XP-C57~~<sup>DAWN</sup> is the Asgrow freezer, Spring. To our knowledge, ~~XP-C57~~<sup>DAWN</sup> is a completely new and distinct variety.

JDA  
1/6/77

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