No. 7700069

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 (P.L. 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:

L. N. Rollin

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470 (1-76)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
PLANT VARIETY PROTECTION OFFICE
NATIONAL AGRICULTURAL LIBRARY
BELTSVILLE, MARYLAND 20705

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAME	FOR OFFICIAL USE ONLY
DAWN ~~XP-G57~~ 8/16/77		PV NUMBER 7700069
2. KIND NAME: Garden Pea	3. GENUS AND SPECIES NAME: Pisum sativum	FILING DATE 5-31-77 TIME 11:00 A.M. P.M.
4. FAMILY NAME (BOTANICAL): Leguminosae	5. DATE OF DETERMINATION: July, 1972	FEE RECEIVED $ 250 — DATE 5-31-77
		$ 250 — 5-31-77
		$ 250 — 8-15-77
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.*)	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	Delaware	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
7000 Portage Road
Unit 9630-190-1
Kalamazoo, Michigan 49001

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, Novelty Statement.

[X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*

[X] 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 [XX] 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? [XX] 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 commerical 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.)

Asgrow Seed Company
Garden Pea ~~XP-C57~~ DAWN

7700069

EXHIBIT A--Origin and Breeding History of ~~XP-C57~~ DAWN Pea

The original cross, Dart x Early Sweet 20, was made in 1965 and ~~XP-C57~~ DAWN was developed by straight selection from this cross. Single plant selections were made through F_6 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 ~~XP-C57~~ DAWN 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.

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

JDA
1/6/77

Asgrow Seed Company
Garden Pea ~~XP-C57~~ DAWN

7700069

EXHIBIT B--Novelty Statement Concerning ~~XP-C57~~ DAWN Pea

The commercial garden pea varieties most similar to ~~XP-C57~~ DAWN to our knowledge are Spring and No. 4683. Comparative characteristics which make ~~XP-C57~~ DAWN a different variety include, but are not restricted to, the following:

~~XP-C57~~ DAWN Compared to Spring

1. ~~XP-C57~~ DAWN is a canner and Spring is a freezer.

~~XP-C57~~ DAWN Compared to No. 4683

1. Gentically, ~~XP-C57~~ DAWN is a true Sweet and No. 4683 is an Alsweet. If the two are crossed, there will be a segregation for round and wrinkled seed.
2. ~~XP-C57~~ DAWN is approximately three or four days earlier than No. 4683. At Twin Falls, Idaho, the two varieties have been compared in replicated trials for four years. There were two plots of each variety each year. The following table gives the dates harvested each year, average Tenderometer reading, and average degree days to harvest.

DATES HARVESTED	~~XP-C57~~ DAWN	No. 4683
1973	June 19 & June 19	June 23 and June 24
1974	June 19 & June 20	June 21 and June 23
1975	July 3 & July 3	July 6 and July 6
1976	June 16 & June 18	June 19 and June 20

AVERAGE TENDEROMETER OF EIGHT PLOTS:

99	96

AVERAGE DEGREE DAYS OF EIGHT PLOTS:

1094	1175

The fact that the Tenderometer for ~~XP-C57~~ DAWN was slightly higher would suggest that ~~XP-C57~~ DAWN was slightly more mature than No. 4683.

JDA
1/6/77

EXHIBIT B ADDITION

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~~ DAWN and Spring.

	DAWN ~~XP-C57~~			Spring		
Year	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 DAWN ~~XP-C57~~ 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:

VARIETY	COLOR	COLOR GROUP
Spring	152 B	Yellow-Green
~~XP-C57~~ DAWN	195 B	Greyed-Green

J.D. Atkin
July 21, 1977

XP-C57

FORM APPROVED. OMB NO. 40-R3112

FORM GR-470-14
(5-15-74)

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

EXHIBIT C
(Pea)

OBJECTIVE DESCRIPTION OF VARIETY

PEA *(PISUM SATIVUM)*

NAME OF APPLICANT(S)
Asgrow Seed Company

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
Kalamazoo, Michigan 49001

VARIETY NAME OR TEMPORARY DESIGNATION
DAWN
~~XP-C57~~

FOR OFFICIAL USE ONLY
PVPO NUMBER 7700069

Place the appropriate number that describes the varietal character in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. TYPE:

[1] 1 = GARDEN 2 = FIELD 3 = EDIBLE-PODDED

2. MATURITY:

[1][0] Node number of first bloom: [0][6][1] No. of days to processing [1][0][9][4] Heat Units

[0][2] No. of days *Earlier* than . . . [1] 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:

[0][5][0] CM. HIGH

[ ][ ] Cm. *Shorter* than . . . . . [ ] 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

[0][5] Cm. *Taller* than . . . . . [3] 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

4. VINE:

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

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

[1] Internodes: 1 = STRAIGHT 2 = ZIG ZAG [1][3] NUMBER OF NODES

5. LEAFLETS:

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

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

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

6. STIPULES:

[2] 1 = LACKING 2 = PRESENT [1] 1 = NOT CLASPING 2 = CLASPING

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

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

7. FLOWER COLOR:

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

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8. PODS:

[2] Shape: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED

[2] End: 1 = POINTED (Alderman) 2 = BLUNT (Alaska)

[1] Color: 1 = LIGHT GREEN (Alaska WR) 2 = MEDIUM GREEN 3 = DARK GREEN (Alderman) 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	3	4	5	6	7	8	AVERAGE
	12	15	26	27	19	01			29

SEEDS (Dry, Mature):

[1] Shape: 1 = FLATTENED 2 = ANGULAR 3 = OVAL 4 = ROUNDED

[3] Surface: 1 = SMOOTH 2 = DIMPLED 3 = WRINKLED

[2] Surface: 1 = SHINY 2 = DULL

[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 3 = BLACK

[1] Cotyledon Color: 1 = GREEN 2 = YELLOW 3 = ORANGE

[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:

Asgrow Seed Company
Garden Pea ~~XP-C57~~ DAWN

7700069

EXHIBIT D--Additional Description of XP-C57 Pea

DAWN ~~XP-C57~~ 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 DAWN ~~XP-C57~~ is the Asgrow freezer, Spring. To our knowledge, DAWN ~~XP-C57~~ is a completely new and distinct variety.

JDA
1/6/77