No. 7500075

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, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT ETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA

'RALLY'

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* 29th *day of* October *in the year of our Lord one thousand nine hundred and* seventy-six

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(12-15-72)

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

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION	2. KIND NAME	FOR OFFICIAL USE ONLY
~~XP-C60~~ RALLY HF 9/7/76	Pea	PV NUMBER 7500075
3. GENUS AND SPECIES NAME: Pisum sativum	4. FAMILY NAME *(Botanical)*: Leguminosae	FILING DATE 3.13.75 / TIME 10 A.M. —
	5. DATE OF DETERMINATION: 1973	FEE RECEIVED $ 250 / $ 250 / $ 250 — BALANCE DUE $ — / $ — / $ —

6. NAME OF APPLICANT(S)	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*	8. TELEPHONE AREA CODE AND NUMBER
Asgrow Seed Company	Kalamazoo, Michigan 49001	(616) 382-4000

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*	10. STATE 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:

~~Allen R. Trotter~~ John A. Batchs HF 4/1/76
Asgrow Seed Company
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, Botanical Description of the Variety
- [X] 13C. Exhibit C, Objective Description of the Variety
- [X] 13D. Exhibit D, Data Indicative of Novelty
- [X] 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 [X] 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.

March 10, 1975 (DATE) — Allen R. Trotter (SIGNATURE OF APPLICANT)

(DATE) — (SIGNATURE OF APPLICANT)

AMENDED EXHIBIT A

ORIGIN AND BREEDING HISTORY OF ~~XP-C60~~ RALLY 767

1966	Original cross - Wisconsin 715 x Nugget.
1967	F_1 grown.
1968	F_2 grown. Single vine selections made.
1969	F_3 grown. Reselected.
1970	F_4 grown. Reselected.
1971	F_5 grown. Reselected.
1972	F_6 grown. Yield trial. Small increase.
1973	Yield trials throughout company. Increase and mass selection. Designated ~~XP-C60~~. RALLY 767
1974	Yield trials throughout company. Sampled outside company. Increase.

There was normal segregation during the early generations but this line has been remarkably stable since 1970. It has been reselected several times and we find it is true breeding.

J. D. Atkin
January 8, 1976

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.

RECEIVED
MAR 13 1975
U. S. DEPARTMENT OF AGRICULTURE
AMS, GRAIN DIV.
PVPO

7500075

EXHIBIT B

BOTANICAL DESCRIPTION OF ~~XP-C60~~ RALLY 717 PEA

RALLY ~~XP-C60~~ is a second early small sieve canner pea which bears its first bloom on the 11th node and reaches processing maturity in approximately 1350 heat units (three year average).

The plant is quite short but medium in density. The growth habit is determinate, the internodes are zigzag and there is some branching. The leaflets are medium green with a light wax and marbling. There are two pairs of leaflets. The stipules are non-clasping, marbled, larger than the leaflets and the same color as the leaflets. The flower color is white.

The medium green pods are straight, blunt ended and have a smooth shiny surface. The pods are borne as doubles and have very close to eight seeds per pod. These last two characteristics are fairly unique in that this line is probably more consistently double podded than any variety known to us. The average berry count is also very high for a double podded variety.

At 95-100 tendermeter the seeds are light green and average about 2.5 in sieve size. The dry seeds are flattened with a dull wrinkled surface. The seed size averages about 17 grams per 100 seeds. The seed color is blue-green and there is no color pattern. The cotyledon color is green.

RALLY 717 ~~XP-C60~~ has been tested and is resistant to Wilt and susceptible to Near Wilt. There is no reason to believe that this variety is resistant to aphids or other insects.

Exhibit B is written from several years experience and is thus rather generalized due to the fact that conditions vary from year to year. Exhibit C is compiled from results of a one year replicated trial planted especially for PVP measurements where varieties can be compared in side by side plantings. Exhibits B and C therefore, compliment each other and may vary slightly.

FORM APPROVED. OMB NO. 40-R3712

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)*

VARIETY NAME OR TEMPORARY DESIGNATION
~~XP-C60~~ RALLY 717

FOR OFFICIAL USE ONLY

PVPO NUMBER 7500075

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][1] Node number of first bloom: [0][7][0] No. of days to processing [1][3][1][2] Heat Units

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

[0][2] No. of days *Later* than . . . . [3] 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

3. PLANT HEIGHT:

[0][3][5] CM. HIGH

[2][0] Cm. *Shorter* than . . . . . [2] 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

[ ][ ] Cm. *Taller* than . . . . . [ ] 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)

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

[2] Internodes: 1 = STRAIGHT 2 = ZIG ZAG [1][6] NUMBER OF NODES

5. LEAFLETS:

[2] 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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~~XP-060~~
RALLY 9/7/76

8. PODS:

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

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

[2] 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

[2] Borne: 1 = SINGLE 2 = DOUBLE 3 = SINGLE AND DOUBLE 4 = SINGLE, DOUBLE, & TRIPEE 5 = DOUBLE & TRIPLE 6 = TRIPLE 7 = OTHER (Specify) _____

[0 6] CM. LENGTH

[1 1] MM. WIDTH (Between sutures)

[0 8] 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
	15	30	43	11	01				253

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

[6] Primary Color:

[ ] Secondary 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 10 = GRAY 11 = BLACK

[2] Hilum Floor Color: 1 = WHITE 2 = TAN 3 = BLACK

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

[17] 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
[0]	OTHER (Specify) _____				

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

[0] APHIDS

[0] OTHER (Specify) _____

12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	Dart	Fresh Seed Color	Dart
Leaf Color	Dart	Mature Seed Color	Dart
Pod Color	Dart	Seed Shape	Dart
Pod Shape	Dart	Plant Habit	Dart

COMMENTS:

7500075

AMENDED EXHIBIT D

PROOF OF NOVELTY OF RALLY ~~XP-C60~~ 9/7/76

RALLY ~~XP-C60~~ is a second early small sieve canner pea. There are other small sieve canner peas and other second early canner peas but we know of no other peas with this combination except the variety Dart which was developed by Asgrow.

Asgrow counts the number of pods and also the number of seeds on the first three nodes of ten plants picked at random as a first test of yield potential. This test has also proved very valuable describing varieties. RALLY ~~XP-C60~~ differs from Dart in that RALLY ~~XP-C60~~ is more consistently double podded and has a much higher berry count per node. Following are data from the 10 plant/3 node harvests for 1971, 1972, and 1974. Data were not taken in 1973.

Pods and Seeds Per Plant on Ten Plants - First Three Nodes Only

	PODS			SEEDS			
	TOTAL	PER PLANT	STANDARD ERROR	TOTAL	PER POD	PER PLANT	SEEDS/OUNCE
1971							
RALLY ~~XP-C60~~	60	6.0	0.00	466	7.8	46.6	174
Dart	53	5.3	.23	291	5.5	29.1	149
1972							
RALLY ~~XP-C60~~	57	5.7	.18	432	7.6	43.2	187
Dart	49	4.9	.23	253	5.2	25.3	153
1974							
RALLY ~~XP-C60~~	53	5.3	.28	328	6.2	32.8	179
Dart	51	5.1	.28	219	4.3	21.9	148

1974 was a very poor pea year at Twin Falls and this resulted in a lower set of doubles and also a lower berry count per pod.

It is impossible to supply standard errors for seeds per pod or per plant from the data available. The pods per plant on the first three nodes of each of ten random plants are recorded at harvest time. The identity of all lots is unknown to those collecting data. The pods from all ten plants are bulked together and threshed after which the seeds are counted, weighed, etc. In the above comparisons, seeds per pod and seeds per ounce are based on 49 to 60 pods in each case.

Although RALLY ~~XP-C60~~ consistently has slightly more pods per plant than Dart, the differences are probably not statistically significant. However, RALLY ~~XP-C60~~ consistently has considerably more seeds per pod and seeds per plant than Dart. These differences are real. The differences in the field are very obvious in side by side comparisons and although we cannot give standard errors, the data above are based on relatively large numbers of pods and the differences are great.

We have also included data from the 10 plant/3 node harvests regarding seed size. Dart consistently has considerably larger seed.

In calculating the standard errors we discovered that the number of Dart pods in 1972 had been mistakenly reported as 39 in our original PVP application. The number was actually 49 and is so reported in this amended application.

Your request for standard error figures was received too late for plantings in 1975 to obtain additional data. We feel that differences in seeds per pod, seeds per plant, and seeds per ounce are sufficient to demonstrate that Dart and ~~KP-C60~~ RALLY are definitely separate and distinct varieties. You probably agree, but it may be necessary for you to have statistical proof. We hope that it will not be necessary, but if it is would you please let us know immediately and we will make a special planting in the greenhouse or growth chambers to get data which can be analyzed to give standard errors.

JDA/kw
1/8/76

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EXHIBIT E

Statement of the Basis of Applicant's Ownership

Pea, ~~XP C60~~ RALLY 9/7/76

Pea, ~~XP C60,~~ RALLY was originated and developed by Dr. C. G. Briggs and Dr. John D. Atkin, Asgrow Plant Breeders. By agreement between employee and Asgrow Seed Company, all rights to any invention, discovery, or development made by an employee are assigned to the company. No rights to such invention, discovery, or development are retained by the employee.