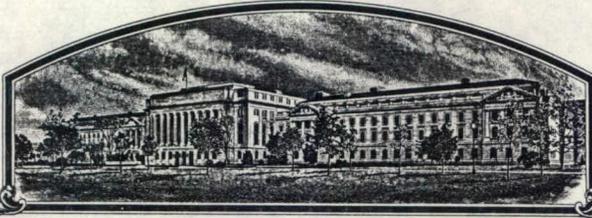


No.

8300054



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Wilbur-Ellis Company
Seed Division

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 *eighteen* 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 EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (7 U.S.C. 2321 ET SEQ.)

PEA

'Aristagreen'



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 31st day of May in the year of our Lord one thousand nine hundred and eighty-four.

Attest:

Kenneth H. Wood
Commissioner
Plant Variety Protection Office
Livestock, Meat, Grain & Seed Division
Agricultural Marketing Service

John R. Block
Secretary of Agriculture

1561



APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1. NAME OF APPLICANT(S) Wilbur - Ellis Company Seed Division		2. TEMPORARY DESIGNATION PS 1540	3. VARIETY NAME ARISTAGREEN
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) East 12001 Empire Way Spokane, Washington 99206 USA		5. PHONE (Include area code) 509-922-1774	FOR OFFICIAL USE ONLY VPVO NUMBER 8300054
6. GENUS AND SPECIES NAME Pisum sativum	7. FAMILY NAME (Botanical) Leguminosae		FILING DATE 1-21-83 TIME 3:00 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.
8. KIND NAME Garden Pea	9. DATE OF DETERMINATION July 7, 1982 R/S 3/20/84		FEES RECEIVED AMOUNT FOR FILING \$ 1,000 DATE 1/21/83 AMOUNT FOR CERTIFICATE \$ 500 DATE 5/1/84
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) CORPORATION			12. DATE OF INCORPORATION 1924
11. IF INCORPORATED, GIVE STATE OF INCORPORATION CALIFORNIA			

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

Wilbur - Ellis Company Seed Division ATTN: Floyd A. Weems
 East 12001 Empire Way Spokane, Washington 99206 USA

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

- a. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
 b. Exhibit B, Novelty Statement
 c. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
 d. Exhibit D, Additional Description of the Variety

15. 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) of the Plant Variety Protection Act.)
 Yes (If "Yes," answer items 16 and 17 below) No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
 Yes No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
 Foundation Registered Certified

18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES?
 United Kingdom October 18, 1983 Yes (If "Yes," give names of countries and dates)
 No

19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES?
 Not Yet Yes (If "Yes," give names of countries and dates)
 No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request 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 Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT Floyd A. Weems Research Director	DATE October 18, 1982
SIGNATURE OF APPLICANT For and on the behalf of Wilbur - Ellis Company Seed Division	DATE

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ARISTAGREEN was derived from the following crosses:

$\left[(\text{PI } 285719 \times^5 \text{ Dark Skin Perfection}) \times^3 \text{ RF } 73152 \right]$

DARK SKIN PERFECTION is a public freezer variety.

PI 285719 is a Plant introduction line from Poland, with a very uniform plant, medium height, medium vigor, flowering 16th node, very heavy foliage, dark green color, late maturity, purple flowered, moderate pod-set, frequent double flowers, average 6 ovules per pod and good virus tolerance.

RF 73152 is a multipodded, multi resistant, breeding line. A Dark Skin Perfection type plant, podding 4, 4, 3, 3, very concentrated pod-set, flowering 15th node, very uniform plant, medium height, midseason maturity, white flowered, 6-8 ovules, dark green, Dark Skin Perfection vigor and resistant to Fusarium wilt races 1 and 5, but only good tolerance to race 6.

PI258719 was crossed with Dark Skin Perfection. The resulting F^1 progeny was back crossed five generations with Dark Skin Perfection. Progeny of this combination was crossed to RF 73152, then back crossed three generations to RF 73152, then advanced three generations and then single plants were selected for multipodded and plant characters. These single plant progenies were then grown three generations in soils heavily infested with Fusarium wilt, races five and six. Further selection and evaluation was made for resistance to the two races of wilt. We advanced these selections to the ninth generation where we found them to be genetically stable. In 1981, we began our first seed increase program to our present quantities. We have observed no variants during the past two multiplications which we feel is evidence of uniformity and stability.

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14B EXHIBIT B

WILBUR-ELLIS COMPANY believes we are the original and only breeder of the variety ARISTAGREEN and base novelty on the following:

ARISTAGREEN pods are borne 3, 3, 3, and 3 per peduncle, whereas Dark Skin Perfection pods are 2, 2, 1 and 1 per peduncle.

ARISTAGREEN average sieve size is 4.27, whereas Dark Skin Perfection is 4.47.

ARISTAGREEN average plant height is 55 cm, whereas Dark Skin Perfection is 66 cm.

ARISTAGREEN bears its pods in a more concentrated set toward the top of the plant than does Dark Skin Perfection, making ARISTAGREEN more uniform in maturity.

ARISTAGREEN averages 66 days to 100 tenderometer maturity, whereas Dark Skin Perfection averages 70 days to 100 tenderometer.

ARISTAGREEN is resistant to Fusarium wilt race 5 and 6, whereas Dark Skin Perfection is susceptible to both races.

ARISTAGREEN has exceptionally strong internodes below the first flowering node and each node thereafter, giving outstanding upright plant support to mature pods. Dark Skin Perfection has strong internodes below first flowering node, becoming weaker each node thereafter, creating lodging at maturity.

ARISTAGREEN is most similar to the variety, Dark Skin Perfection.

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1-4

17

1 TYPE

2 MATURITY

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8. PODS:

1 Shape: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED 2 End: 1 = POINTED (Alderman) 2 = BLUNT (Alaska)
 3 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
 6 Borne: 1 = SINGLE 2 = DOUBLE 3 = SINGLE AND DOUBLE 4 = SINGLE, DOUBLE, & TRIPEE 5 = DOUBLE & TRIPLE 6 = TRIPLE 7 = OTHER (Specify) Occasional quadruple
 6 5 CM. LENGTH 1 3 MM. WIDTH (Between sutures) 0 7 NO. SEEDS PER POD

9. SEEDS (95--100 Tenderometer):

3 Color: 1 = LIGHT GREEN 2 = GREEN 3 = DARK GREEN 4 = OTHER (Specify) _____
 Seive: % 1 2 3 4 5 6 7 8 AVERAGE
 0 07 16 34 29 14 0 0 0.4.36
 SEEDS (Dry, Mature): 4.27 r/s

1 Shape: 1 = FLATTENED 2 = ANGULAR 3 = OVAL 4 = ROUNDED 2 r/s 3/30/84
 3 Surface: 1 = SMOOTH 2 = DIMPLED 3 = WRINKLED 1 Surface: 1 = SHINY 2 = DULL
 1 Color Pattern: 1 = MONOCOLOR 2 = MOTTLED 3 = STRIPED 4 = DOTTED
 5 Primary Color: 1 = CREAMY-WHITE 2 = CREAM & GREEN 3 = LIGHT GREEN 4 = MEDIUM GREEN
 0 Secondary Color: 5 = DARK GREEN 6 = BLUE-GREEN 7 = YELLOW 8 = BROWN 9 = RED
 1 Hilum Floor Color: 1 = WHITE 2 = TAN 3 = BLACK 2 Cotyledon Color: 1 = GREEN 2 = YELLOW 3 = ORANGE
 2 5 GRAMS PER 100 SEEDS

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

2 FUSARIUM WILT 2 NEAR-WILT 0 DOWNY MILDEW
 0 ASCOCHYTA BLIGHT 1 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 0 OTHER (Specify) _____

12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	Puget	Fresh Seed Color	DSP
Leaf Color	Puget	Mature Seed Color	Puget or DSP
Pod Color	DSP	Seed Shape	DSP
Pod Shape	DSP	Plant Habit	Puget

COMMENTS:

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ARISTAGREEN

14D EXHIBIT D

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Additional description of the variety ARISTAGREEN

-SEE ATTACHED DATA SHEETS-

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and description of the variety

THE NATIONAL DATA CENTER

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1982

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ARISTAGREEN Variety Name Designation PS1540-82-04 Variety Number

3 TYPE OF SAMPLE 0 = na (no answer); 1 = cross; 2 = single plant selection; 3 = bulk selection

Origin Female PI 285,719 Origin Male DARK SKIN PERFECTION

Origin Short BC 5 GEN TO DSP THEN X RF 731S2 BC 3 GEN TO RF 731S2 THEN SPS'0 11 GENERATION

HISTORY (FOR PREVIOUS YEAR)

PS 1540-81-04 Variety Name Designation PS1540-82-04 Variety Number

8 DISPOSITION 0 = na; 1 = discard; 2 = hold; 3 = increase; 4 = increase and reselect; 5 = increase and retest; 6 = test for disease reaction; 7 = sample to research station; 8 = sample to customer

2 USE 0 = na; 1 = canner; 2 = canner-freezer; 3 = dry edible; 4 = edible pod; 5 = feed grain

1 GENERAL TYPE 0 = na; 1 = garden; 2 = field; 3 = edible pod

1 INTERNODE TYPE 0 = na; 1 = internodes straight; 2 = internodes zigzag very strong!

2 SEASON: NODE NUMBER OF FIRST BLOOM 0 = na; 1 = early (8th - 12th node); 2 = midseason (13th-15th node); 3 = late (16th-24th node)

MATURITY

03 number of days earlier than 6 11 number of days later than 1

1 = Alaska WR; 2 = Thomas Laxton WR; 3 = Little Marvel; 4 = Wando; 5 = Alderman WR 6 = DSP

COMPARATIVE PLANT HEIGHT

11 cm. shorter than 6 12 cm. taller than 12

ACTUAL PLANT HEIGHT

055 cm. high

1 = Alaska WR; 2 = Thomas Laxton WR; 3 = Little Marvel; 4 = Wando; 5 = Alderman WR 6 = DSP

VINE

1 Habit 0 = na; 1 = determinate; 2 = undecided; 3 = indeterminate. 1 Node Color 0 = na; 1 = green; 2 = red blotch.

3 Stockiness 0 = na; 1 = slim (Alaska); 2 = medium (Thomas Laxton WR); 3 = heavy (Alderman)

2 Branching 0 = na; 1 = none; 2 = one to two branches (Little Marvel); 3 = more than two branches (Dwarf Grey Sugar)

15 Range 14-16 Number of Nodes to First Bloom 05 cm. Internode Length (just below first flowering node)

00 Color (Royal Society Color Chart)

LEAFLETS

00 Color 3 Wax 0 = na; 1 = none; 2 = light; 3 = medium; 4 = heavy 2 Marbling 0 = na; 1 = none; 2 = marbled

3 Number of Pairs 0 = na; 1 = one; 2 = two; 3 = three or more; 4 = not paired; 5 = none

STIPULES

2 Presence 0 = na; 1 = lacking; 2 = present 2 Marbling 0 = na; 1 = not marbled; 2 = marbled

2 Color Compared with Leaflets 0 = na; 1 = lighter; 2 = same; 3 = darker 2 Claspings 0 = na; 1 = not cls.; 2 = cls.

3 Size Compared with Leaflets 0 = na; 1 = smaller; 2 = same; 3 = larger

FLOWER COLOR

1 Venation 1 Standard 1 Wing 1 Keel 0 = na; 1 = white; 2 = greenish; 3 = lavender; 4 = purple; 5 = red

1 Monocolor or Bicolor 0 = na; 1 = monocolor; 2 = bicolor

45 da. 1st Bloom

PODS

1 Shape 0 = na; 1 = straight; 2 = slightly curved; 3 = curved 2 End 0 = na; 1 = pointed; 2 = blunt (Alaska)

00 Color 1 Surface 0 = na; 1 = smooth; 2 = rough 6.5 cm. length 13 mm. Width (between sutures) 4

Number of Pods/Peduncle 4 5 6 7 8 9 10 11 12 13 3 14 3 15 3 16 3 17

18 19 20 21 22 23 24 6-8 Seeds per Pod AVE. 7.0

YIELD AND EFFICIENCY

Eco. Yield gms. Harvest index (%) Biological Yield in grams

NODULATION

Presence 0 = na; 1 = not present; 2 = present mm. Size if Present Color

Insect Damage 0 = na; 1 = nematode; 2 = citona larva; 3 = nematode and citona larva

Lateral Roots: # of nodules at a depth less than 15 cm. # of nodules at a depth greater than 15 cm.

Primary Roots: # of nodules at a depth less than 15 cm. # of nodules at a depth greater than 15 cm.

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95-100 TENDEROMETER SEEDS

dark green *medium green*

4 Shape 0 = na; 1 = flattened; 2 = angular; 3 = oval; 4 = rounded Surface Color Coty Color

Surface 0 = na; 1 = shiny; 2 = dull. English-Sieve Seed Distribution (%): Sieve Waste

#1: #2: #3: #4: #5: 4.36

#6: #7: #8: Metric-Sieve Seed Distrib. (%): waste smaller than 7.10 mm;

useable larger than 7.90; ditto than 8.71; than 9.51; than 10.30; than 11.10

MATURE, DRY SEEDS

Dark green

1 Mono or Bicolor 0 = na; 1 = monocolour; 2 = bicolor. Primary Color Secondary Color

6 Color Pattern 0 = na; 1 = splashed; 2 = mottled; 3 = striped; 4 = flecked; 5 = dotted; 6 = uniform color

1 Hilum Floor Color 0 = na; 1 = white; 2 = tan; 3 = black *yellow* Coty Color 25 gm/100 seeds 14 size in 64ths"

1 Shape 0 = na; 1 = flattened; 2 = angular; 3 = oval; 4 = rounded 07 Surface 1 = wrinkled; 10 = smooth

PLANT REACTION TO ELEMENTS

Drought Cold Heat 0 = not tested; 1 = most susceptible; 10 = most resistant *not known!*

Quantity of Seeds Planted Weight of Seeds Planted in grams

LOCATION

Range #(1-50) Row #(1-200) Wire #(1-500) Field #(1-50)

Range Axis Wire Axis 0 = na; 1 = E to W; 2 = W to E; 3 = N to S; 4 = S to N

DATES

Planting Date (month, day, year) Up (month, day) Bloom

Canning Cut Harvest

STAND

Emergence (up to 400) Plants per square yard (up to 500)

WEIGHT

<input type="checkbox"/>	Field Run	(up to 40,000 lb)	<input type="checkbox"/>	(up to 1,000,000 gm)	<input type="checkbox"/>	INVENTORY
<input type="checkbox"/>	Mill Run	(ditto)	<input type="checkbox"/>	(ditto)	<input type="checkbox"/>	up to 40,000 lb
<input type="checkbox"/>	Hand Picked	(ditto)	<input type="checkbox"/>	(ditto)	<input type="checkbox"/>	up to 1,000,000 gm

	Date	Percent	Date	Percent
1st Bloom Count	0527	005	0531	100
2nd Bloom Count	0528	025		
3rd Bloom Count	0529	060		
4th Bloom Count	0530	086		
5th Bloom Count				
6th Bloom Count				
7th Bloom Count				

DISEASE: 0 = not tested; 1 = most susceptible; 10 = most resistant

Root Rot Complex: 08 ascochyta aphanomyces rhizotonia pythium 08 fusarium solani

05 sclerotinia. Fus. Wilt: 10 1 10 2 03 04 10 5 10 6 7

DISEASE: 0 = not tested; 1 = absolutely susceptible; 2 = segregating for resistance; 3 = absolutely resistant.

pea enation mosaic yellow bean mosaic pea-seed borne mosaic bacterial blight. Insects: aphid

citona or leaf weevil common pea weevil nematodes wire worms

MILDEW: 0 = not tested; 1 = susceptible; 2 = segregating for resistance; 3 = absolutely resistant

1 powdery mildew 0 downy mildew

ROOT STRUCTURE TYPE

very outstanding!

QUALITY OF PEAS

% of defective peas color of processed peas

Bitterness: 0 = no test; 1 = most bitter; 10 = least bitter

10 Unprocessed 10 Processed

Starchiness: 0 = no test; 1 = most starchy; 10 = most sweet

10 Unprocessed 10 Processed

Small sample.

ADDITIONAL NOTES

blanched and evaluated!

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