No. 7200141

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Stubbs Seed Services, Inc.

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 (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA

'Gentry'

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, D.C. *this* 25th *day of* April *in the year of our Lord one thousand nine hundred and* seventy-four

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(2-12-71)

UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND 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 GENTRY	2. KIND NAME Alaska	FOR OFFICIAL USE ONLY PVPO NUMBER 72141
3. GENUS AND SPECIES NAME Pisum sativum	4. FAMILY NAME *(Botanical)* ~~Fabaceae~~	FILING DATE 615172 / TIME 3:00 P.M.
	5. DATE OF DETERMINATION July, 1970	FEE RECEIVED $750 / CHARGES
6. NAME OF APPLICANT(S) Stubbs Seed Services, Inc.	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* Stubbs Seed Services, Inc. P. O. Box 475, Troy Road Moscow, Idaho 83843	8. TELEPHONE AREA CODE AND NUMBER 208-882-2712
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* Corporation	10. STATE OF INCORPORATION Idaho	11. DATE OF INCORPORATION January, 1965

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

Ronald A. Robinson, President
Stubbs Seed Services, Inc.
P. O. Box 475
Moscow, Idaho 83843

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

[X] 12A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52, P.L. 91-577)*

[X] 12B. Exhibit B, Botanical Description of the Variety

[ ] 12C. Exhibit C, Objective Description of the Variety

[X] 12D. Exhibit D, Data Indicative of Novelty

[X] 12E. Exhibit E, Statement of the Basis of Applicant's Ownership

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. *(See Section 52, P.L. 91-577).*

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), P.L. 91-577) (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 [X] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed?

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

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 (P.L. 91-577).

May 31, 1972
(DATE)

Ronald A. Robinson
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

FORM GR-470 (REVERSE)

RECEIVED JUN 5 1972 AGRICULTURE DEPARTMENT C.M.S. GRAIN DIVISION

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $50.00 fee to U.S. Dept. of Agriculture, Consumer and Marketing Service, Grain Division, Hyattsville, Maryland 20782. Retain one copy for your files. All items on the face of the form are self-explanatory unles noted below.

ITEM

5 Insert the date the applicant determined that he had a new variety.

12a 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.

12b 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.

12c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

12d Provide complete data indicative of novelty. Seed and plant specimens may be submitted and seeds submitted may be sterile. Where possible, include photographs of plant comparisons, chemical tests, etc.

12e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

13.

12A. Exhibit A, Origin and Breeding History of the Variety

Original stocks used in the development of the variety GENTRY were established varieties of Pisum sativum SUPERIOR and MULTIPOD. The initial cross was made in 1955 by Merl W. Stubbs.

Following the initial cross several generations were grown of the hybrid. ALASKA #6 was then crossed with initial selections of the SUPERIOR-MULTIPOD cross.

Following the second cross close selection for pod size and shape, vine height along with the smooth seeded characteristic was carried out after the F_2 generation.

In 1960 and 1961 Root Rot tests were conducted to insure any potentially new variety had the desired resistance to the organisms.

In 1962 a small increase of sister lines of the above cross was made. This was again done in 1963 and at the same time several of the sister lines were destroyed as they lacked one or more characteristics that were necessary for acceptance. In 1964 Mr. Stubbs passed away so for two growing seasons no work was done on new material. In 1966 this cross and the work done on it was discovered and increasing was again carried on. In 1968 it was tested in several plots where the technical data such as plant height, heat units to canning stage, sieve size and yield potential were studied. In 1970 the limited amount of seed was increased and in 1971 a limited acreage was grown which produced enough seed to allow for limited commercial production in 1972.

Variants in this variety appear to have been almost completely removed. When this material was grown in 1966 a few plants (approximately 1 seed per 2,800 or 1 per pound) produced an earlier plant with single blossoms per node. All characteristics of the plant were the same as the characteristics now carried by GENTRY except the first fruiting node was the ninth and the blossoms and pods were borne singly. This characteristic has been selected out so under field conditions this past year it was reduced to just under 10 plants per acre or approximately 1 seed for 42,000.

12A. (Continued)

Stability has been obtained through the many generations the hybrid has been grown and the constant selection toward a primary set of characteristics. With Pisum sativum this is made much easier than with many other plants because of the selfing characteristic.

Stability is very evident with the extreme uniformity of plant characteristics observed under field increase conditions. Last season's production,under limited field increase, yielded approximately 10 off-type plants per acre. When planted at the rate of 150 pounds per acre this would be approximately 10 off-type plants to 400,000 normal plants.

12B. Exhibit B, Botanical Description of the Variety

The seed is round and medium to small in size. The plants emerge and develop in the same manner as the Perfection varieties of Pisum sativum. The plant, following emergence, goes through a period of development when little height is gained and the internodes remain very short. Following this a period of rapid growth is experienced at which time the plant gains most of its height. When the plant growth reaches the 10th or 11th node the buds begin to appear as these are the first fruiting nodes. These buds are generally borne in pairs on each peduncle.

The distance between fruiting nodes is very short which causes the plant to remain relatively short with the pods and blossoms clustered in the top of the plant.

The mature plant is 18 inches tall compared to regular smooth seeds varieties with a height of 30 inches.

Canning maturity, with a tenderometer reading of 100 is reached with 1320 heat units compared to 1190 for regular Alaska.

The pods are slender, long and sickel shaped. They are pointed and moderately loose compared to regular Alaska which has a blunt type pod that is generally tighter.

The stems and leaves are medium in size and moderately dark green in color compared to fine stems and leaves, long internodes and light green color in regular Alaska strains.

12D. Exhibit D, Data Indicative of Novelty (Revised)

The following data and information compares GENTRY Peas with the standard Alaska Type peas.

GENTRY is a smooth seeded variety with a vine type that is determinant, short and compact with short internodes and moderately coarse stems and leaves similar to Perfection types. In comparison regular Alaska peas have an indeterminant vine that is tall, long internodes and fine stems and leaves.

Plant height of GENTRY is 18 inches compared to 30 inches for regular Alaska types.

The first fruiting node of GENTRY is generally the 11th compared to the 9th for regular Alaska.

Pods of GENTRY are slightly sickel shaped and somewhat pointed and regular Alaska types have a straight, blunt pod.

GENTRY requires 1320 heat units to reach a tenderometer maturity of 100 and regular Alaska types require approximately 1190 heat units for the same maturity.

As stated at the beginning of EXHIBIT D the foregoing information compares GENTRY with regular Alaska types of peas as both the GENTRY are smooth seeded in the mature stage even though the vine types are very different. Information on any smooth seeded variety with the vine characteristics of GENTRY has not been found; however, we know of two lines of peas currently produced by the Green Giant Company that more nearly resembles GENTRY than any other varieties. These lines are produced under the numbers of 394 and 359.

These two lines are very much alike and difficult to tell apart in the field. Lines #394 and #359 have similar growth habits to GENTRY in that the internodes are short, vines determinant and heavily double podded.

Both of the numbered lines are slightly taller than GENTRY. GENTRY has a coarser stem and leaf than either line. When produced under identical conditions GENTRY produces a slightly larger seed with a count of 2680 per pound compared to 2850 for the two numbered lines.

The dry seed of GENTRY is very uniformly round, green and very smooth with very little or no dimpling where, in contrast, both #394 and #359 are less uniformly round and more flat or dimpled. Also a very important difference is that GENTRY is free of any physiological spotting in the dry stage where both #394 and #359 show some this characteristic.

12D. Exhibit D, Data Indicative of Novelty

GENTRY is a smooth seed variety of Pisum sativum with a seed count of approximately 2,680 peas per pound. 1699 gm/1000 This compares with 2,100 peas per pound for Regular 2/6 gm/1000 Alaska and 2,950 peas per pound for Regular Small 154 gm/1000 Sieve Alaska.

GENTRY is a smooth seed variety with a vine that is determinant, short, compact with moderately coarse stems and leaves. This is a Perfection type vine. Part. seed wrinkled The Regular Alaska has an indeterminant vine with long internodes and fine stem and leaves.

Plant height of GENTRY is 18 (46 cm) inches compared to 30 (76 cm) inches for Regular Alaska.

The first fruiting node on GENTRY is 11 with an occasional 10th node plant compared to 9 for Regular Alaskas.

The pods are slender, sickel shaped and pointed and moderately dark green in color. This compares to Regular Alaska with a blunt, slightly tighter, straight pod that is light green.

GENTRY requires 1320 heat units to reach tenderometer maturity of 100 compared to 1190 units for Regular Alaska.

12E. Exhibit E, Statement of the Basis of Applicant's Ownership

Merl W. Stubbs did the original crossing, selecting and testing of this variety until his death in 1964. In 1965 I became manager of the company and continued working with the material Mr. Stubbs had developed or selected. In 1969 I purchased the company. With the purchase of the company all facilities, seed stocks and breeding stock were purchased. GENTRY was among the breeding stocks included in this purchase.

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-14
(10-2-72)

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

EXHIBIT C
(Pea)

OBJECTIVE DESCRIPTION OF VARIETY

PEA *(PISUM SATIVUM)*

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
STUBBS SEED SERVICES, INC.

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
P. O. BOX 475
MOSCOW, IDAHO 83843

FOR OFFICIAL USE ONLY
PVPO NUMBER
72141
VARIETY NAME OR TEMPORARY DESIGNATION
Gentry

Place the appropriate number that describes the varietal character of this variety 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 = TALL (Internodes straight) 2 = DWARF (Internodes zigzag)

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

2. SEASON:

[1] Node number of first bloom: 1 = EARLY (8 - 12th node) 2 = MIDSEASON (13 - 24th node) 3 = LATE (Greater than 24th node)

3. MATURITY:

[ ][5] No. of days *Earlier* than ..... [4]
[0][6] No. of days *Later* than ..... [1]

1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL
4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

4. PLANT HEIGHT:

[0][4][4] CM. HIGH

[3][4] Cm. *Shorter* than ..... [1]
[0][0] Cm. *Taller* than ..... [ ]

1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL
4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

5. VINE:

[1] Habit: 1 = DETERMINATE 2 = INDETERMINATE

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

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

[1] Node Color: 1 = GREEN 2 = RED BLOTCH

[1][1] NUMBER OF NODES to first fruiting node

[ ][4] CM. INTERNODE LENGTH (Just below 1st flowering node)

6. LEAFLETS:

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

[3] Wax: 1 = NONE 2 = LIGHT 3 = MEDIUM 4 = HEAVY

[2] Marbling: 1 = NONE 2 = MARBLED (Alaska)

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

7. 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

8. FLOWER COLOR:

[1] 1 = MONOCOLOR 2 = BICOLOR

[2] Venation [1] Standard [1] Wing [/] Keel

1 = WHITE 2 = GREENISH 3 = LAVENDER 4 = PURPLE
5 = RED 6 = OTHER (Specify) _____

5

9. PODS:

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

[1] 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] 1 = SHINY 2 = DULL

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

[ ][7] CM. LENGTH [1][5] MM. WIDTH (Between sutures) [ ][8] NUMBER OF SEEDS PER POD

10. SEEDS (95 - 100 Tenderometer):

[1] Color: 1 = LIGHT GREEN (Perfection Canner) 2 = GREEN (Little Marvel) 3 = DARK GREEN (Dark Skin Perfection) 4 = OTHER (Specify) _____

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

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

[1] Surface: 1 = SHINY 2 = DULL

SEEDS (Mature, Dry):

[1] Color: 1 = MONOCOLOR 2 = BICOLOR

[ ] Primary Color: 1 = CREAMY-WHITE (Mammoth Melting Sugar) 2 = YELLOW (Arthur) 3 = CREAM & GREEN (Thomas Laxton) 4 = YELLOW 5 = LIGHT GREEN (Alderman) 6 = MEDIUM GREEN (Little Marvel) 7 = DARK GREEN (Dark Skin Perfection) 8 = BLUE-GREEN (Alaska WR) 9 = BROWN 10 = RED 11 = GRAY 12 = BLACK

[ ] Secondary Color:

[ ] Color Pattern: 1 = SPLASHED 2 = MOTTLED 3 = STRIPED 4 = FLECKED 5 = DOTTED

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

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

[1][8] GRAMS PER 100 SEED

11. SEED SIEVE SIZE DISTRIBUTION (95 - 100) Tenderometer):

Sieve (%): [1][0] 1 [2][6] 2 [3][5] 3 [2][6] 4 [0][3] 5 [ ][ ] 6 [ ][ ] 7 [ ][ ] 8

12. PLANT REACTION: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[0] 1 = DROUGHT (Wando) [2] 2 = COLD (Alaska) [2] 3 = HEAT (Wando)

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

[2] FUSARIUM WILT [2] 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) _____

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

[0] APHIDS [ ] OTHER (Specify) _____

15. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	Early Perfection	Fresh Seed Color	Alaska
Leaf Color	Early Perfestion	Mature Seed Color	Alaska
Pod Color	Early Perfection	Seed Shape	Alaska
Pod Shape	Early Perfection	Plant Habit	Target

REFERENCES: The following publication may be used as a reference aid for the standardization of character descriptions and terms:

1. Shoemaker, D. N., 1934. Descriptions of Types of Principal American Varieties of Garden Peas. U.S.D.A. Miscellaneous Publication, No. 170.
2. Hedrick, V. P., 1928. The Vegetables of New York. New York Agricultural Experiment Station. Vol. 1., Part 1.
3. Wade, B. L., 1943. A Key to Pea Varieties. U.S.D.A. Circular No. 676.

Nickerson's or any recognized color fan may be used to determine color of the described variety.