No. 7100101

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Agway, 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

'Early Market'

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* 9th *day of* May *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
(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 Early Market	2. KIND NAME Pea	FOR OFFICIAL USE ONLY PV NUMBER 71101
3. GENUS AND SPECIES NAME Pisum sativum	4. FAMILY NAME *(Botanical)* Leguminoseae 5. DATE OF DETERMINATION 1969	FILING DATE 5/10/71 TIME 2:30 P.M. FEE RECEIVED $ 250.00 BALANCE DUE $ 0.00
6. NAME OF APPLICANT(S) Agway Inc.	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* Box 1333 Syracuse, New York 13201	8. TELEPHONE AREA CODE AND NUMBER X 6691 315-477-7061
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* Corporation	10. STATE OF INCORPORATION Delaware	11. DATE OF INCORPORATION July 1964

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

Mr. James MacEachron
Agway Inc.
Box 1333
Syracuse, New York 13201

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, Botanical Description of the Variety
- [ ] 13C. Exhibit C, Objective Description of the Variety
- [X] 13D. Exhibit D, Data Indicative of Novelty
- [ ] 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 [X] 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.

April 12, 1973
(DATE)

(SIGNATURE OF APPLICANT)

(DATE)

James MacEachron
(SIGNATURE OF APPLICANT)

1

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
MAY 10 1971
U.S. DEPARTMENT OF AGRICULTURE
AMS, GRAIN DIV.
PVPO

EARLY MARKET PEA

EXHIBIT "A"

ORIGIN:

Original cross in the greenhouse during the winter of 1952-53, between pea varieties Progress #9 and World Record resulted in 45 seeds. Out of the plants produced, nine tall plants were selected as single lines. Further selections were made within each of the nine lines. By 1957, four of the original lines had been discontinued and, in 1960, a single line was selected and increased.

A pilot increase in Idaho, in 1963, produced a crop that was too variable for release. Further selections for a tall (36 inch) vine with the large Progress #9 pod type were made. At this time the earliness from World Record was also stressed.

A continuous selection program resulted in a uniform variety with desirable characteristics by 1968. The first increase was made in Idaho in 1969 and continued in 1970.

EARLY MARKET PEA

EXHIBIT "B"

BOTANICAL DESCRIPTION:

Vines are 30 to 36 inches tall with occasional basal branches. Foliage is scanty to medium in amounts. Color of foliage is medium to dark green with considerable light flecking on the leaves. Foliage is composed of small leaflets in groups of four and of slightly larger, blunt-tipped stipules. Stipules clasp the stem lightly and are cut with small teeth over half the outer margin. Tendrils are inconspicuous. Flowers begin at the 7th or 8th node, are white and usually borne singly but occasionally paired.

Pods are borne on long slender stalks. They are broad, plump, straight and quite smooth, with the dorsal edge showing a slight curve upward. Pods are 4-1/2 to 5 inches long enclosing 7 to 9 large, bright green peas of excellent quality.

Seeds are wrinkled, ranging in color from deep green to cream. An early spring planting (mid April) will generally produce a marketable crop in 55-60 days. Seeds are medium in size, requiring approximately 85 per ounce.

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)
Agway Inc. - Seed Division

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
Box 1333
Syracuse, NY 13201

FOR OFFICIAL USE ONLY

PVPO NUMBER
71101

VARIETY NAME OR TEMPORARY DESIGNATION
Early Market

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:

[0][4] No. of days *Earlier* than ..... [2]
[0][1] 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][9][2] CM. HIGH

[0][0] Cm. *Shorter* than ..... [2]
[ ][ ] Cm. *Taller* than ..... [ ]

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

5. VINE:

[2] 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)

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

[ ][ ] NUMBER OF NODES

[ ][ ] 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

[2] 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

4

[1] Venation [1] Standard [1] Wing [1] Keel

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

9. PODS:

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

[1] 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] 1 = SHINY 2 = DULL

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

[1 1] CM. LENGTH [2 5] MM. WIDTH (Between sutures) [0 8] NUMBER OF SEEDS PER POD

10. SEEDS (95 - 100 Tenderometer):

[2] 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

[3 ~~1~~] Surface: 1 = SMOOTH 2 = DIMPLED 3 = WRINKLED [ ] Surface: 1 = SHINY 2 = DULL

SEEDS (Mature, Dry):

[2] Color: 1 = MONOCOLOR 2 = BICOLOR

[3] 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)

[5] Secondary Color: 7 = DARK GREEN (Dark Skin Perfection) 8 = BLUE-GREEN (Alaska WR) 9 = BROWN 10 = RED 11 = GRAY 12 = BLACK

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

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

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

[3 2] GRAMS PER 100 SEED

*per phone with Mr. Mac Williams #7 11-12-73

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

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

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

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

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

[0] FUSARIUM WILT [0] 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 [0] OTHER (Specify) _____

15. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	World Record	Fresh Seed Color	Little Marvel
Leaf Color	World Record	Mature Seed Color	Alderman
Pod Color	Progress #9	Seed Shape	Alderman
Pod Shape	Progress #9	Plant Habit	World Record

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.

EARLY MARKET PEA

EXHIBIT "C"

OBJECTIVE DESCRIPTION:

An early pea with an unsurpassed taste appropriately describes Early Market. A vigorous, medium to dark green vine reaches 36 inches tall and bears a very heavy yield. Large plump dark green pods 4-1/2 to 5 inches long with pointed ends are borne singly on the stem.

Pods are extremely well-filled, containing 7-9 glossy, bright green peas. These peas retain this bright color even after freezing and cooking.

EARLY MARKET PEA

EXHIBIT "D"

TRIAL PERFORMANCE:

No definitive yield data has been collected to date. However, an extensive test has been planted in the Spring of 1971, from which data can be supplied later.

Exhibit D - Data Indicative of Novelty

Early Market Pea

Data from 1969 Pea Trial, Agway Inc., Prospect, Pennsylvania

	1st. Flower Date	Gross Weight Grams	50 Pods Shelled Peas Grams	Average Peas Per Pod	% Pod Length Less Than 3"	3" to 3½"	3½" to 4"	4" to 4½"
Early Market	5/26	525	210	6.4		26	68	6
World Record	5/26	440	165	5.4	22	37	37	4
Progress #9	5/28	458	173	6.3	8	23	37	32

Early Market Pea

These data taken from 1963 trials conducted by Agway Inc. in Feeding Hills, Massachusetts. These trials were chosen because it was in Feeding Hills where developmental work was done on Early Market Pea.

	1st. Flower Date	Gross Weight Grams	50 Pods Shelled Peas Grams	Average Peas Per Pod	% Pod Length 3" to 3½"	3½" to 4"	4" to 4½"	4½" to 5"	Plant Height
Early Market	5/31	560	246	7.24			72	28	36"
World Record	5/31	510	192	6.4	7	50	43		36"
Progress #9	6/1	490	235	7.92	1	25	72	3	18"

EXHIBIT D

Early Market Pea

Data Indicative of Novelty

"Early Market" is the result of crossing "World Record" and Progress #9 and selecting plants with a vine as tall as "World Record"; earliness of pod formation as "World Record"; pod size and shape the same as "Progress #9".

"Early Market" most closely resembles "World Record" by having (1) the same vine height and (2) the same maturity rating.

"Early Market" differs from "World Record" by having (3) longer, pointed pods appearing less plump due to greater length (4 1/2 to 5 inches versus 4 to 4 1/2 inches) and (4) 7 to 9 peas per pod compared to 5 to 7 for "World Record".

James MacEachron

James L. MacEachron, Manager
SEED DIVISION

13 D. Exhibit D:

"Early Market" is the result of crossing "World Record" and Progress #9 and selecting plants with a vine as tall as "World Record"; earlinesss of pod formation as "World Record"; pod size and shape the same as "Progress #9".

"Early Market" most closely resembles "World Record".

"Early Market" differs from "World Record" by having (3) longer, pointed pods appearing less plump due to greater length (4 1/2 to 5 inches versus 4 to 4 1/2 inches) and (4) 7 to 9 peas per pod compared to 5 to 7 for "World Record".

EARLY MARKET PEA

EXHIBIT "E"

STATEMENT OF OWNERSHIP:

The applicant, Agway Inc., is the employer of all breeders involved in the development of the variety Early Market Pea.