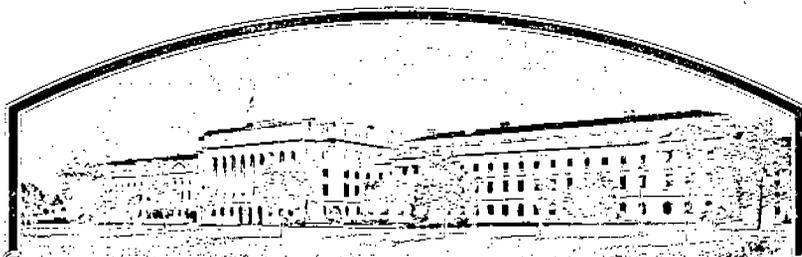


No.

7200004



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Denholm Seeds

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

NASTURTIUM

'Mahogany Jewel'



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 20th day of November in the year of our Lord one thousand nine hundred and seventy-four

Attest:

*L. J. Rollins*  
Commissioner  
Plant Variety Protection Office  
Grain Division  
Agricultural Marketing Service

*Earl L. Buttz*  
Secretary of Agriculture

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1. VARIETY NAME OR TEMPORARY DESIGNATION <b>Mahogany Jewel</b>		2. KIND NAME <b>NASTURTIUM</b>		FOR OFFICIAL USE ONLY	
3. GENUS AND SPECIES NAME <b>Tropaelum majus</b>		4. FAMILY NAME (Botanical) <b>Tropaeolaceae</b>		PV NUMBER <b>72004</b>	
5. DATE OF DETERMINATION <b>1970</b>		FILING DATE <b>7-19-71</b>		TIME <b>3</b> P.M.	
6. NAME OF APPLICANT(S) <b>DENHOLM SEEDS</b>		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) <b>222 North "A" Street Lompoc, California 93436</b>		FEE RECEIVED \$ <b>250</b> \$ <b>250</b> \$ <b>250</b>	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <b>Corporation</b>		10. STATE OF INCORPORATION <b>California</b>		BALANCE DUE \$ <b>—</b> \$ <b>—</b> \$ <b>—</b>	
11. DATE OF INCORPORATION <b>1952</b>		8. TELEPHONE AREA CODE AND NUMBER <b>805-736-2703</b>			

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

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
- 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  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.

10/4/73  
(DATE)

Harry A. J...  
(SIGNATURE OF APPLICANT)

1

\_\_\_\_\_  
(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, 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.

Exhibit A

Origin and Breeding History of the Variety

1. "Mahogany Jewel" originated as a selection from the variety Jewel Mixed taken in 1965.
2. Selections were made each year for five years and in 1970 pure lines were obtained and the increase to stock seed state commenced. The first commercial crop was planted in 1972.
3. This variety has needed more stock seed maintenance than the other colors in the Jewel group. It tends to throw a paler Mahogany shade which has to be removed. Improvement is being made by constant selection. A few other off shades occasionally show and we have to remove trailing plants from the crops.
4. Our 1973 was a considerable improvement over the 1972 crop for quality. This year we have new stock seed grown from single plant selections.

Exhibit B

Botanical Description of the Variety

1. "Mahogany Jewel" is a dwarf type of Nasturtium with semi-double mahogany red flowers. One of the distinct features is that the flowers stand well above the foliage.

The plants grow to about 30 cm. in height and the foliage is dark grey-green in color. The flowers are semi-double and are approximately 5-6 cm. in diameter.

This variety flowers very freely in the cooler coastal areas. In warmer climates the best show is produced early and late in the season when the temperatures are cooler.

**OBJECTIVE DESCRIPTION OF VARIETY**  
NASTURTIIUM (*TROPAEOLUM* SPP.)

NAME OF APPLICANT(S) <b>Denholm Seeds</b>	FOR OFFICIAL USE ONLY PVPO NUMBER
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) <b>222 North "A" Street Lompoc, Calif. 93436</b>	<b>72004</b> VARIETY NAME OR TEMPORARY DESIGNATION <b>Mahogany Jewel</b>

Place the appropriate number that describes the varietal character of this variety in the boxes below.  
Place a zero in first box (e.g.  or ) when number is either 99 or less or 9 or less.

**1. SPECIES:**

1 = MAJUS    2 = PELTOPHORUM (Lobblanum)    3 = PEREGRINUM    4 = MINUS  
5 = OTHER (Specify) \_\_\_\_\_

1 = DIPLOID    2 = TETRAPLOID    3 = OTHER (Specify) \_\_\_\_\_

**2. PLANT:**

1 = TALL/CLIMBING > 60 CM.    2 = BUSH < 60 CM.

CM. HIGH

DAYS FROM EMERGENCE TO ANTHESIS

**3. STEM (Mature):**

1 = SUCCULENT, THICK    2 = NOT SUCCULENT, RIGID    3 = WOODY

**4. LEAF:**

Shape:    1 = SCALLOPED    2 = DIVIDED OR LOBED    3 = ENTIRE

CM. ACROSS (Leaf size)

CM. PETIOLE LENGTH

Surface:    1 = NOT GLAUCOUS    2 = GLAUCOUS

Order when crushed:    1 = MILD    2 = PUNGENT

Color:    1 = LIGHT GREEN (Whirlybird)    2 = MEDIUM GREEN    3 = DARK GREEN (Glorius Gleam)    4 = VARIEGATED

**5. FLOWER:**

Type:    1 = SINGLE (< 5 petals)    2 = SEMIDouble (8 - 15 PETALS)  
3 = DOUBLE (> 15 petals)    4 = VARIOUS TYPES ON SAME PLANT

CM. ACROSS (Flower size)

CM. PEDUNCLE LENGTH

Petal Shape:    1 = POINTED    2 = NOTCHED    3 = ENTIRE

Petal Margin:    1 = STRAIGHT    2 = WAVY

Spur:    1 = ABSENT    2 = PRESENT

Spur:    1 = STRAIGHT    2 = CURVED

Pistil:    1 = ABSENT    2 = PRESENT

Pollen:    1 = ABSENT    2 = PRESENT

5. FLOWER (Continued) :

Flower Color: 1 = UNIFORM 2 = VARIABLE ON SAME PLANT

1 = WHITE 2 = YELLOW 3 = ORANGE 4 = RED-ORANGE 5 = RED 6 = SCARLET  
7 = MAROON 8 = VARICOLORED (Describe)

Dark Spot: 1 = ABSENT 2 = PRESENT

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

LEAF SPOT  SPOTTED WILT  MOSAIC

OTHER (Specify) \_\_\_\_\_

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

APHIDS  OTHER (Specify) \_\_\_\_\_

8. INDICATE A VARIETY THAT MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	VARIETY	CHARACTER	VARIETY
Plant type	Gem or Globe Mahogany	Flower type	Gem or Globe Mahogany
Plant size	Gem or Globe Mahogany	Flower size	Gem or Globe Mahogany
Leaf shape	Gem or Globe Mahogany	Petal shape	Gem or Globe Mahogany
Leaf size	Gem or Globe Mahogany	Petal color	Gem or Globe Mahogany
Petiole length	Gem or Globe Mahogany	Spur shape/length	Gem or Globe Mahogany

REFERENCES

Bailey, L. H. 1949. Manual of Cultivated Plants. MacMillan, New York, N.Y.

USDA Year Book Separate, 1937. Improvement of Flowers by Breeding.

COMMENTS:

Exhibit D

Data Indicative of Novelty

Novelty is based on the following characteristics:

1. Dwarf habit.
2. Semi-double flowers above the foliage.
3. First dwarf Mahogany Red variety of the Jewel type to be homozygous for color.

Exhibit E

Statement of Applicant's Ownership

Denholm Seeds, Lompoc, California believes it is the sole, original and first breeder of the "Mahogany Jewel" variety of Nasturtium for which it solicits a certificate of protection.