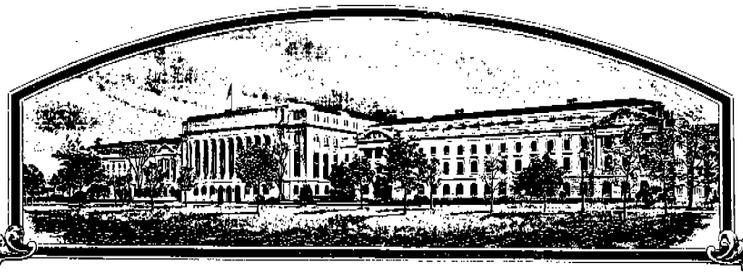

No. 7800027

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, 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 (7 U.S.C. 2541, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

MARIGOLD

'Harmony Boy'

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* 13th *day of* July *in the year of our Lord one thousand nine hundred and* seventy-eight

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(1-76)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
PLANT VARIETY PROTECTION OFFICE
NATIONAL AGRICULTURAL LIBRARY
BELTSVILLE, MARYLAND 20705

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAME	FOR OFFICIAL USE ONLY	
	Harmony Boy	PV NUMBER 7800027	
2. KIND NAME	3. GENUS AND SPECIES NAME	FILING DATE 2-21-78	TIME 2:30 A.M. (P.M.)
Marigold	Tagetes Patula	FEE RECEIVED $ 250.00	DATE 2-21-78
4. FAMILY NAME (BOTANICAL)	5. DATE OF DETERMINATION	$ 250.00	2-21-78
Compositae	July 1975	$ 250.00	5-15-78

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
Denholm Seeds	222 North A Street Lompoc, California 93436	805/736-4563

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	California	1952

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

David G. Lemon
Denholm Seeds
222 North A Street
Lompoc, California 93436

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, Novelty Statement.
- [X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*
- [X] 13D. Exhibit D, Additional Description of the Variety.

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

15. Does the applicant(s) agree to the publication of his/her (their) name(s) and address in the Official Journal? [X] YES [ ] NO

16. The applicant(s) declare(s) 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) 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 Act.

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

February 14, 1978.
(DATE)

David G. Lemon
(SIGNATURE OF APPLICANT)

1

(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits, and ~~$250.00~~ 2,500 seeds $500 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, National Agricultural Library, Beltsville, Maryland 20705. (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 Give the date the applicant determined that he had a new variety based on (1) the definition in Section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give (1), the genealogy, including public and commerical varieties, lines, or clones used, and the breeding method. (2), the details of subsequent stages of selection and multiplication. (3), the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4), evidence of stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties; (1) identify these varieties and state all differences objectively; (2) Attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit C, Objective Description form for all characteristics, for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe; such as; plant habit, plant color, disease resistance, etc.

14A If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled or published or the certificate has been issued. However, if the applicant specifies "NO", he may change his choice. (See Section 180.15 of the Regulations and Rules of Practice.)

Application No. 7800027 Marigold 'Harmony Boy'

13A Exhibit A

Origin and Breeding History of Variety

1. Original selection was found as a mutant (or possibly an outcross) in one of our own fields of a variety called 'Gold Rush'. The original plant was given the number 7630 and was lifted to the greenhouse and selfed in late 1974.

2. Seed of the above selection was planted again in our greenhouse during the winter months of 1974/75 and ten single plant selections were made in the line. These were planted outdoors in the summer of 1975 and two of these lines proved to be quite uniform for height, type and color. Ten selections were made in each of these lines and planted again in 1976. One of these selections numbered 8604 proved to be early and very uniform for height and color. All plants of this line were dug and potted in our greenhouse and subsequently mass pollinated. This seed was used for the All America trials in 1977 and to plant a one acre stock seed increase at our ranch in Baja, California. This seed is being used to plant a production field in Lompoc this year.

3. In the early stages there was variation for height and flower size but color has been fairly uniform. Like all open pollinated Marigolds, there is a small amount of variation for height and color. I have noted less than 1% taller plants in various trials. Color is very uniform early in the year but later on (especially under very warm conditions) the red and orange coloring will fade and merge to some extent. Under cool conditions (as at Lompoc, California) the color is very stable.

4. 'Harmony Boy' was entered in the 1977 All America Trials. It gained high points for its uniformity and placed in the top eight varieties out of 44 entered. I would consider it as stable as any other French Marigold. All of these have to be constantly maintained from single plant selections and/or foundation stock seed increases in order to keep up their characteristics true to type.

MARIGOLD HARMONY BOY

Exhibit B

Novelty Statement

1. 'Harmony Boy' is earlier to bloom (3 - 4 days), dwarfer and larger flowered than the nearest comparison variety 'Petite Harmony'. This variety is a much better performer in packs and flats than the comparison (see photo taken at the Ball Trials in West Chicago). This variety performs better than the comparison outdoors under adverse weather conditions.

2. Color print enclosed showing 'Harmony Boy' compared to 'Petite Harmony'. This photo was taken in May 1977 at the Ball Seed Company in West Chicago.

FORM GR-470-9
(9-15-72)

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

EXHIBIT C
(Marigold)

OBJECTIVE DESCRIPTION OF VARIETY
MARIGOLD *(TAGETE)*

INSTRUCTIONS - *See Reverse.*

NAME OF APPLICANT(S)
Denholm Seeds

ADDRESS *(Street and No., or R.F.D. No.; City, State, and ZIP Code)*
222 North A Street
Lompoc, California 93436

FOR OFFICIAL USE ONLY
PVPO NUMBER
7800027
VARIETY NAME OR TEMPORARY DESIGNATION
HARMONY BOY

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][8]) when number is either 99 or less or 9 or less.

1. SPECIES TYPE:

[2] 1 = ERECTA *(African)* 2 = PATULA *(French)* 3 = TENUIFOLIA *(Signata)* 4 = LUCIDA *(Sweet)*
5 = OTHER *(Specify)* _____

2. PLOIDY:

[3] 1 = DIPLOID (n = _____) 2 = TRIPLOID (n = _____) 3 = TETRAPLOID (n = _____)

3. PLANT TYPE/HABIT:

[1] 1 = EXTRA DWARF *(Miniature, petite)* < 20 CM. 2 = DWARF 25-35 CM. 3 = SEMIDWARF 40-55 CM. 4 = TALL > 60 CM.

[2] 1 = ERECT 2 = SEMIERECT 3 = DECUMBENT

[1] 1 = COMPACT 2 = LAX

[1] Flowering: 1 = LONG SEASON 2 = SHORT SEASON

4. LEAF ***(Middle of first flowering branch):***

[2] Type: 1 = SIMPLE 2 = COMPOUND

[4] Leaflet: 1 = OVATE 2 = LANCEOLATE 3 = ELLIPTIC 4 = FILIFORM

[5] Margin: 1 = ENTIRE 2 = CRENATE 3 = SERRATE 4 = DENTATE 5 = INCISED

[0][1][0] CM. LONG [6][0] MM. WIDE [2] Anthocyanin pigment in petioles: 1 = ABSENT 2 = PRESENT

[1] Glands: 1 = PUNCTATE 2 = LARGE DOTS [2] Glands: 1 = BASAL 2 = APICAL

[4] Odor: 1 = NONE 2 = MILD FRAGRANCE 3 = STRONG FRAGRANCE 4 = MILD "MARIGOLD" 5 = STRONG "MARIGOLD"

5. STEM:

[2] 1 = STRAIGHT 2 = ZIGZAG [2] 1 = BRITTLE 2 = FLEXIBLE

[3] *Anthocyanin:* 1 = ABSENT 2 = ALONG VEINS ONLY 3 = SOLID COLORATION [1][2] CM. FROM BASE OF STEM TO INVOLUCRE OF TERMINAL FLOWER

[0][6] CM. FROM BASE OF MAIN STEM TO AXIL OF TOP BRANCH [0][4] CM. FROM AXIL OF TOP BRANCH TO INVOLUCRE OF TERMINAL FLOWER

[0][1] NO. OF INTERNODES BELOW FIRST BRANCH [0][4] NO. OF FIRST ORDER BRANCHES *(from main stem)*

6. FLOWER:

[3] *Type:* 1 = CARNATION 2 = CHRYSANTHEMUM 3 = OTHER Crested

[2] 1 = SINGLES 2 = DOUBLES

[3] *Silhoutte:* 1 = FLATTENED 2 = ROSETTE 3 = GLOBULAR

[4] *Odor:* 1 = NONE 2 = MILD FRAGRANCE 3 = STRONG FRAGRANCE 4 = MILD "MARIGOLD" 5 = STRONG "MARIGOLD"

MARIGOLD HARMONY BOY 7800027

Exhibit D

Additional Description of Variety

Marigold 'Harmony Boy' is another addition to a series represented by 'Golden Boy' and 'Yellow Boy' (P.V.P. 7600034). Plant type and flowering time is similar to the above varieties. Closest comparisons are 'Petite Harmony', 'Gypsy Dancer', 'Gold Rush' and 'Butterscotch'. It is larger flowered, dwarfer and earlier than 'Petite Harmony'. It is earlier flowering than the other three varieties mentioned and dwarfer in plant habit. Flower size is not quite as large as 'Gypsy Dancer', 'Gold Rush' or 'Butterscotch'.

7800027

6. FLOWER: *(Continued)*

[1] Ray: 1 = FLATTENED 2 = CURLED/TWISTED *(Fantastic)*

[2] Apices: 1 = ENTIRE 2 = LOBED 3 = NOTCHED

[1] SURFACE - Dorsal:
[1] SURFACE - Ventral:
1 = GLABROUS 2 = PUBESCENT 3 = PUBESCENT ON APICE ONLY

[1] LUSTER - Dorsal:
[2] LUSTER - Ventral:
1 = SHINY 2 = DULL

[1] PATTERN - Dorsal:
[5] PATTERN - Ventral:
1 = SOLID 2 = SPOTTED 3 = STRIPED
4 = PICOTEE 5 = OTHER *(Specify)* Bicolor

[2] Color: 1 = SOLID 2 = BICOLOR *(Specify colors)*: Primary Mahogany Secondary Orange
State color standards used: _____

SIZE *(Use outer row of first matured flower)*: [3][0] MM. LONG [3][5] MM. WIDE

[3] Disc: 1 = ABSENT 2 = PRESENT, COVERED 3 = PRESENT, UNCOVERED

[2] Type: 1 = NOT QUILLED 2 = QUILLED

7. DISEASE RESISTANCE *(0 = Not Tested; 1 = Susceptible; 2 = Resistant)*

[0] ROOT-ROT *(Phytophthora)*
[0] GREY MOLD *(Botrytis)*
[0] STEM ROT *(Sclerotinia)*

0 [X] VIRUS YELLOWS
0 [X] FUSARIUM WILT
0 [X] WITCHES BROOM

8. INDICATE A VARIETY THAT MOST NEARLY RESEMBLE THAT SUBMITTED

CHARACTER	VARIETY	CHARACTER	VARIETY
Plant shape	Petite Harmony	Flower size	Gypsy Dancer
Plant size	Petite Harmony	Flower shape	Petite Harmony
Foliage	Petite Harmony	Flower color	Petite Harmony

INSTRUCTIONS

REFERENCES: The following publications may be used as a reference aid for completing this form:

(a) Bailey, L. H., 1949, Manual of Cultivated Plants, MacMillan.

(b) Royal Horticulture Society, 1965, Dictionary of Gardening, Oxford.

(c) Wyman, Donald, 1971, Wyman's Gardening Encyclopedia, MacMillan.

COLOR: Nickerson's or any recognized color fan may be used to determine the colors.

Petite
Harmony