



US00PP22233P2

(12) **United States Plant Patent**  
**Dekker**

(10) **Patent No.:** **US PP22,233 P2**  
(45) **Date of Patent:** **Nov. 8, 2011**

(54) **CHRYSANTHEMUM PLANT NAMED**  
**'DEKRODIAN'**

(50) Latin Name: *Chrysanthemum*×*morifolium*  
Varietal Denomination: **Dekrodian**

(75) Inventor: **Cornelis W. Dekker**, Hensbroek (NL)

(73) Assignee: **Dekker Breeding B.V.**, Hensbroek (NL)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **12/799,438**

(22) Filed: **Apr. 23, 2010**

(51) **Int. Cl.**  
*A01H 5/00* (2006.01)

(52) **U.S. Cl.** ..... **Plt./298**

(58) **Field of Classification Search** ..... **Plt./298**  
See application file for complete search history.

*Primary Examiner* — Susan McCormick Ewoldt

(74) *Attorney, Agent, or Firm* — C. A. Whealy

(57) **ABSTRACT**

A new and distinct cultivar of *Chrysanthemum* plant named 'Dekrodian', characterized by its daisy-type inflorescences with dark red-colored ray florets; strong and upright flowering stems; uniform flowering habit; and good postproduction longevity.

**2 Drawing Sheets**

**1**

Botanical designation: *Chrysanthemum*×*morifolium*.  
Cultivar denomination: 'DEKRODIAN'.

**BACKGROUND OF THE INVENTION**

The present invention relates to a new and distinct cultivar of *Chrysanthemum* plant, botanically known as *Chrysanthemum*×*morifolium*, commercially grown as a cut flower and hereinafter referred to by the name 'Dekrodian'.

The new *Chrysanthemum* plant is a product of a planned breeding program conducted by the Inventor in Hensbroek, The Netherlands. The objective of the breeding program is to create new early-flowering daisy-type *Chrysanthemum* plants with large inflorescences, strong flowering stems, attractive and unique ray floret coloration and excellent post-production longevity.

The new *Chrysanthemum* plant originated from a cross-pollination made by the Inventor in Hensbroek, The Netherlands on Sep. 25, 2007, of a proprietary selection of *Chrysanthemum*×*morifolium* identified as code number 04.8850.02, not patented, as the female, or seed, parent with a proprietary selection of *Chrysanthemum*×*morifolium* identified as code number 03.31040.03, not patented. The new *Chrysanthemum* plant was discovered and selected by the Inventor as a single flowering plant from within the progeny of the stated cross-pollination in a controlled greenhouse environment in Hensbroek, The Netherlands in April, 2008.

Asexual reproduction of the new *Chrysanthemum* plant by terminal cuttings in a controlled greenhouse environment in Hensbroek, The Netherlands since May, 2008, has shown that the unique features of this new *Chrysanthemum* plant are stable and reproduced true to type in successive generations.

**SUMMARY OF THE INVENTION**

Plants of the new *Chrysanthemum* have not been observed under all possible environmental conditions. The phenotype may vary somewhat with variations in environment such as temperature, daylength and light intensity, without, however, any variance in genotype.

The following traits have been repeatedly observed and are determined to be the unique characteristics of 'Dekrodian'.

**2**

These characteristics in combination distinguish 'Dekrodian' as a new and distinct *Chrysanthemum* plant:

1. Daisy-type inflorescences with dark red-colored ray florets.

2. Strong and upright flowering stems.

3. Uniform flowering habit.

4. Good postproduction longevity; plants maintain good substance for about 23 days in an interior environment.

Plants of the new *Chrysanthemum* differ from plants of the female parent selection in the following characteristics:

1. Plants of the new *Chrysanthemum* have larger leaves than plants of the female parent selection.

2. Plants of the new *Chrysanthemum* flower four days earlier than plants of the female parent selection.

3. Plants of the new *Chrysanthemum* and the female parent selection differ in ray floret color as plants of the female parent selection have orange-colored ray florets.

Plants of the new *Chrysanthemum* differ from plants of the male parent selection in the following characteristics:

1. Plants of the new *Chrysanthemum* are more vigorous than plants of the male parent selection.

2. Plants of the new *Chrysanthemum* flower seven days later than plants of the male parent selection.

3. Plants of the new *Chrysanthemum* have larger inflorescences than plants of the male parent selection.

4. Plants of the new *Chrysanthemum* had broader ray florets than plants of the male parent selection.

Plants of the new *Chrysanthemum* can be compared to plants of *Chrysanthemum*×*morifolium* 'Dekaliya', not patented. In side-by-side comparisons conducted in Hensbroek, The Netherlands, plants of the new *Chrysanthemum* differed from plants of 'Dekaliya' in the following characteristics:

1. Plants of the new *Chrysanthemum* were more vigorous than plants of 'Dekaliya'.

2. Ray florets of plants of the new *Chrysanthemum* were darker in color than ray florets of plants of 'Dekaliya'.

**BRIEF DESCRIPTION OF THE PHOTOGRAPHS**

The accompanying colored photographs illustrate the overall appearance of the new *Chrysanthemum* plant. These pho-

tographs show the colors as true as it is reasonably possible to obtain in colored reproductions of this type.

Colors in the photographs may differ slightly from the color values cited in the detailed botanical description which accurately describe the colors of the new *Chrysanthemum* 5 plant.

The photograph on the first sheet comprises a side perspective view of a typical flowering stem of 'Dekrodian' grown as a spray-type.

The photograph on the second sheet comprises close-up 10 views of the upper (top of photograph) and lower surfaces (bottom of photograph) of typical inflorescences and leaves of 'Dekrodian'.

#### DETAILED BOTANICAL DESCRIPTION 15

The aforementioned photographs and following observations and measurements describe plants grown during the winter in Hensbroek, The Netherlands, under commercial practice in ground beds in a glass-covered greenhouse. Plants were initially given 1.5 weeks of long day/short night treatments followed by short day/long night treatments to induce flower initiation and development. During the production of the plants, day temperatures ranged from 18° C. to 25° C., 20 night temperatures ranged from 20° C. to 22° C. and light levels were about 7 kilolux. Plants were nine weeks old when the photographs and the description were taken. In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2007 Edition, except 25 where general terms of ordinary dictionary significance are used.

Botanical classification: *Chrysanthemum*×*morifolium* 'Dekrodian'.

Parentage: 35

*Female, or seed, parent.*—Proprietary selection of *Chrysanthemum*×*morifolium* identified as code number 04.8850.02, not patented.

*Male, or pollen, parent.*—Proprietary selection of *Chrysanthemum*×*morifolium* identified as code number 03.31040.03, not patented. 40

Propagation:

*Type.*—Terminal vegetative cuttings.

*Time to initiate roots, summer.*—About four days at 20° C. 45

*Time to initiate roots, winter.*—About six days at 20° C.

*Time to produce a rooted young plant, summer.*—About 13 days at 20° C.

*Time to produce a rooted young plant, winter.*—About 15 days at 20° C. 50

*Root description.*—Fine, fibrous; light brown in color.

*Rooting habit.*—Freely branching, moderately dense.

Plant description:

*Appearance/growth habit.*—Herbaceous daisy-type cut flower that is typically grown as a spray-type; moderately vigorous growth habit. 55

*Flowering stem description.*—Aspect: Erect. Strength: Strong. Length: About 75 cm. Stem diameter: About 5 mm to 6 mm. Spray diameter: About 25 cm. Internode length: About 2 cm to 3 cm. Texture: Finely pubescent; longitudinally ridged. Color: Close to 146B. 60

*Foliage description.*—Arrangement: Alternate; simple. Length: About 7 cm to 13 cm. Width: About 6 cm to 8 cm. Apex: Broadly acute. Base: Attenuate. Margin: Palmately lobed, serrate; sinuses parallel to convergent. Texture, upper and lower surfaces: Pubescent, 65

slightly rough; veins prominent on lower surface. Venation pattern: Pinnate, reticulate. Color: Developing leaves, upper surface: Close to 137B. Developing leaves, lower surface: Lighter than 147B. Fully developed leaves, upper surface: Darker than 147A; venation, close to 148B. Fully developed leaves, lower surface: Darker than 147B; venation, close to 146C. Petiole: Length: About 1 cm to 2 cm. Diameter: About 3 mm to 4 mm. Texture, upper and lower surfaces: Slightly rough. Color, upper surface: More gray than 147B. Color, lower surface: Close to 146B.

Inflorescence description:

*Appearance.*—Daisy-type inflorescence form with oval-shaped ray florets and tubular disc florets; inflorescences borne perpendicular to axillary laterals (peduncles); ray and disc florets develop acropetally on a capitulum.

*Fragrance.*—Moderately fragrant.

*Flowering response.*—Under natural conditions, plant flower in the autumn/winter in the Northern Hemisphere; at other times of the year, inflorescence initiation and development can be induced under short day/long night conditions (at least 13.5 hours of darkness); uniform flowering response; plants exposed to 1.5 weeks of long day/short night conditions after planting followed by photoinductive short day/long night conditions flower about 49 days later when grown as a spray-type.

*Postproduction longevity.*—In an interior environment, inflorescences and foliage will maintain good color and substance for about 23 days; inflorescences persistent.

*Quantity of inflorescences.*—Grown as a spray type, about 20 to 25 inflorescences develop.

*Inflorescence size.*—Diameter: About 5 cm to 6 cm. Depth (height): About 2 cm. Disc diameter: About 1 cm. Receptacle height: About 4 mm. Receptacle diameter: About 5 mm. Receptacle color: Close to 145B.

*Inflorescence buds.*—Shape: Roughly spherical. Height: About 5 mm. Diameter: About 6 mm. Color: Close to 137C.

*Ray florets.*—Length: About 2 cm to 2.5 cm. Width: About 1 cm to 1.2 cm. Shape: Oval. Apex: Rounded to emarginate. Base: Attenuate. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous; satiny. Number per inflorescence: About 25 arranged in about two to three whorls. Aspect: Erect to about 45° from horizontal. Color: When opening, upper surface: Darker than 53A. When opening, lower surface: Close to 164C with a reddish tint. Fully opened, upper surface: Close to 53A; with development, color becoming closer to 185A. Fully opened, lower surface: Yellowish ground color overlain with close to 181D; with development, overlain color becoming closer to 182D.

*Disc florets.*—Shape: Fused tubular, erect and elongated. Apex: Dentate. Length: About 4 mm to 5 mm. Diameter: About 1 mm. Number per inflorescence: About 200, massed at the center of the receptacle. Color: When opening: Apex: Close to 145B. Mid-section: Close to 7A. Base: Close to 145D. Fully opened: Apex: Close to 6A. Mid-section: Close to 145D. Base: Close to 150D.

*Involucral bracts*.—Length: About 5 mm to 9 mm.

Width: About 2 mm to 5 mm. Shape: Oval-shaped.

Apex: Rounded. Base: Rounded to truncate. Margin:

Entire. Texture, upper and lower surfaces: Smooth,

glabrous. Number per inflorescence: About 30<sup>5</sup>

arranged in about two to three whorls. Color, upper  
and lower surfaces: Close to 137C.

*Peduncles*.—Length, terminal peduncle: About 8 cm to 9

cm. Length, fourth peduncle: About 9 cm to 11 cm.

Length, seventh peduncle: About 14 cm to 15 cm.<sup>10</sup>

Diameter: About 2.5 mm. Strength: Strong. Angle:

About 30° from the flowering stem axis. Texture:

Pubescent. Color: Close to 146A.

*Reproductive organs*.—Androecium: Not observed.

Gynoecium: Present on both ray and disc florets. Style

length: About 5 mm to 6 mm. Style color: Yellow.

Stigma color: Yellow.

*Seed/fruit*.—Seed and fruit production have not been  
observed.

Disease/pest resistance: Resistance to pathogens and pests  
common to *Chrysanthemums* has not been observed on  
plants grown under commercial conditions.

It is claimed:

1. A new and distinct *Chrysanthemum* plant named 'Dek-  
rodian' as illustrated and described.

\* \* \* \* \*



