



US00PP19745P2

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

(10) **Patent No.:** **US PP19,745 P2**

(45) **Date of Patent:** **Feb. 17, 2009**

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

(52) **U.S. Cl.** **Plt./294**

(58) **Field of Classification Search** **Plt./294**
See application file for complete search history.

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

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

(57) **ABSTRACT**

A new and distinct cultivar of *Chrysanthemum* plant named 'Dekcadena', characterized by its anemone-type inflorescences with white-colored ray florets and red purple-colored disc florets; strong and upright flowering stems; freely flowering habit; early and uniform flowering response; and good postproduction longevity.

(21) Appl. No.: **12/151,160**

2 Drawing Sheets

(22) Filed: **May 2, 2008**

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

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

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 'Dekcadena'.

The new *Chrysanthemum* 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 freely flowering anemone-type *Chrysanthemum* cultivars with unique ray floret coloration and excellent postproduction longevity.

The new *Chrysanthemum* originated from a cross-pollination made by the Inventor in Hensbroek, The Netherlands on Oct. 26, 2005 of a proprietary selection of *Chrysanthemum*×*morifolium* identified as code number 03.7872.01, not patented, as the female, or seed, parent with a proprietary selection of *Chrysanthemum*×*morifolium* identified as code number 41411, not patented. The new *Chrysanthemum* was discovered and selected by the Inventor as a flowering plant from within the progeny of the stated cross-pollination in a controlled greenhouse environment in Hensbroek, The Netherlands on Apr. 24, 2006.

Asexual reproduction of the new *Chrysanthemum* by terminal cuttings in a controlled greenhouse environment in Hensbroek, The Netherlands since May 21, 2006, has shown that the unique features of this new *Chrysanthemum* 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 'Dekcadena'. These characteristics in combination distinguish 'Dekcadena' as a new and distinct cultivar of *Chrysanthemum*:

1. Small anemone-type inflorescences with white-colored ray florets and red purple-colored disc florets.
 2. Strong and upright flowering stems.
 3. Freely flowering habit.
 4. Early and uniform flowering response; plants flower about 40 days after the start of photoinductive treatments.
 5. Good postproduction longevity; plants maintain good substance for about 27 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* are more freely flowering than plants of the female parent selection.
 2. Plants of the new *Chrysanthemum* have smaller inflorescences than plants of the female parent selection.
 3. Plants of the new *Chrysanthemum* flower earlier than plants of the female parent selection.
- Plants of the new *Chrysanthemum* differ from plants of the male parent selection in the following characteristics:
1. Plants of the new *Chrysanthemum* have smaller leaves than plants of the male parent selection.
 2. Plants of the new *Chrysanthemum* are more freely flowering than plants of the male parent selection.
 3. Plants of the new *Chrysanthemum* have smaller inflorescences than plants of the male parent selection.
 4. Plants of the new *Chrysanthemum* flower earlier than plants of the male parent selection.

Plants of the new *Chrysanthemum* can be compared to plants of the *Chrysanthemum*×*morifolium* 'Deklindipink', disclosed in U.S. Plant Pat. No. 19,435. In side-by-side comparisons conducted in Hensbroek, The Netherlands, plants of the new *Chrysanthemum* differed from plants of 'Deklindipink' in the following characteristics:

1. Plants of the new *Chrysanthemum* had anemone-type inflorescences where plants of 'Deklindipink' had single-type inflorescences.
2. Plants of the new *Chrysanthemum* had larger ray florets than plants of 'Deklindipink'.
3. Plants of the new *Chrysanthemum* and 'Deklindipink' differ in ray floret color as plants of 'Deklindipink' had soft pink-colored ray florets.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

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

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

The photograph on the second sheet is a close-up view of upper and lower surfaces of typical inflorescences (left) and typical leaves (right) of plants of 'Dekcadena'.

DETAILED BOTANICAL DESCRIPTION

In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2001 Edition, except where general terms of ordinary dictionary significance are used. The aforementioned photographs and following observations and measurements describe plants grown during the winter and early spring in Hensbroek, The Netherlands, under commercial practice in a glass-covered greenhouse. Plants were initially given 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., night temperatures ranged from 20° C. to 22° C. and light levels were about 7 kilolux. Plants were pinched one time and were about eight weeks from planting when the photographs and the description were taken.

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

Parentage:

Female, or seed, parent.—Proprietary selection of *Chrysanthemum*×*morifolium* identified as code number 03.7872.01, not patented.

Male, or pollen, parent.—Proprietary selection of *Chrysanthemum*×*morifolium* identified as code number 41411, not patented.

Propagation:

Type.—Terminal vegetative cuttings.

Time to initiate roots.—About four to six days at 20° C.

Time to produce a rooted young plant.—About 13 to 15 days at 20° C.

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

Rooting habit.—Freely branching, moderately dense.

Plant description:

Appearance/growth habit.—Herbaceous anemone-type cut flower that is typically grown as a spray-type. Moderately vigorous growth habit.

Flowering stem description.—Aspect: Erect. Length: About 60 cm. Spray diameter: About 15 cm. Diameter: About 5 mm to 7 mm. Number of lateral branches: About 15. Lateral branch length: About 12

cm to 22 cm. Lateral branch diameter: About 3 cm to 6 cm. Internode length: About 1.5 cm to 2 cm. Texture: Finely pubescent; longitudinally ridged. Color: Close to 146B.

Foliage description.—Arrangement: Alternate; simple. Length: About 4 cm to 8 cm. Width: About 2.5 cm to 4 cm. Apex: Cuspidate. Base: Attenuate. Margin: Palmately lobed; sinuses divergent. Texture, upper and lower surfaces: Pubescent, slightly rough; veins prominent on lower surface. Venation pattern: Pinnate, reticulate. Color: Developing foliage, upper surface: Close to 137C. Developing foliage, lower surface: Close to 147B. Fully expanded foliage, upper surface: Close to 137A; venation, close to 147C. Fully expanded foliage, lower surface: Close to 147B; venation, 146B. Petiole: Length: About 5 mm to 15 mm. Diameter: About 1 mm to 3 mm. Texture, upper and lower surfaces: Slightly rough. Color, upper surface: Close to 147C. Color, lower surface: Close to 146B.

Inflorescence description:

Appearance.—Anemone-type inflorescence form with spoon-shaped ray florets. Inflorescences borne on terminals, arising from leaf axils. Ray and disc florets develop acropetally on a capitulum. Inflorescences 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). Early and uniform flowering response; plants exposed to two weeks of long day/short night conditions after planting followed by photoinductive short day/long night conditions flower about 40 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 27 days. Inflorescences persistent.

Quantity of inflorescences.—Freely flowering habit; when grown as a spray type, about 70 inflorescences per flowering stem develop.

Inflorescence size.—*Diameter:* About 2 cm. Depth (height): About 8 mm. Disc diameter: About 8 mm. Receptacle height: About 3 mm. Receptacle diameter: About 3 mm to 4 mm. Receptacle color: Close to 145B.

Inflorescence buds.—Shape: Flattened spherical. Height: About 2.5 mm. Diameter: About 5 mm. Color: Close to 144A.

Ray florets.—Length: About 8 mm to 10 mm. Width: About 3 mm to 4 mm. Shape: Spoon-shaped. Apex: Obtuse. Base: Attenuate. Margin: Entire. Angle: Initially upright to close to perpendicular to the peduncle. Texture, upper and lower surfaces: Smooth, glabrous; satiny. Number per inflorescence: About 25 arranged in one to two whorls. Color: When opening, upper and lower surfaces: Close to 155D. Fully opened, upper and lower surfaces: Close to 155D.

Disc florets.—Shape: Fused tubular, enlarged. Apex: Dentate. Length: About 6 mm to 8 mm. Diameter: About 1 mm to 2 mm. Number per inflorescence: About 125 in numerous whorls. Color: Immature: Apex: Close to 58A. Mid-section: Close to 155D. Base: Close to 145B. Mature: Apex: Close to 72D.

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Mid-section: Towards the apex, close to 155D; towards the base, close to 154A. Base: Close to 145C.

Involucral bracts.—Length: About 5 mm to 8 mm. Width: About 2 mm to 4 mm. Shape: Oblong. Apex: Obtuse. Base: Obtuse to truncate. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous. Number per inflorescence: About 25 arranged in three whorls. Color, upper surface: Close to 143A. Color, lower surface: Close to 137C.

Peduncles.—Length: About 4 cm to 6 cm. Diameter: About 1 mm to 1.5 mm. Angle: Erect to about 30° from vertical. Strength: Moderately strong. Texture: Pubescent; longitudinally ridged. Color: Close to 146A to 146B.

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Reproductive organs.—Androecium: Not observed.

Gynoecium: Present on both ray and disc florets.

Style length: About 3 mm. Style color: Close to 154D. Stigma color: Close to 4D.

Seed/fruit.—Seed and fruit production has 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 'Dekcadena' as illustrated and described.

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