US00PP32006P3

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

(10) **Patent No.: US PP32,006 P3**
(45) **Date of Patent: Jul. 21, 2020**

(54) ***CHRYSANTHEMUM* PLANT NAMED 'DLFABB12'**

(50) Latin Name: ***Chrysanthemum* X *morifolium***
Varietal Denomination: **DLFABB12**

(71) Applicant: **Arie Gerard Post**, Delft (NL)

(72) Inventor: **Arie Gerard Post**, Delft (NL)

(73) Assignee: **Deliflor Royalties B.V.**, Maasdijk (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.: **16/602,043**

(22) Filed: **Jul. 25, 2019**

(65) **Prior Publication Data**

US 2020/0053931 P1 Feb. 13, 2020

Related U.S. Application Data

(60) Provisional application No. 62/764,554, filed on Aug. 7, 2018.

(51) **Int. Cl.**
A01H 5/02 (2018.01)
A01H 6/14 (2018.01)

(52) **U.S. Cl.**
USPC **Plt./287**
CPC ***A01H 6/1424*** (2018.05)

(58) **Field of Classification Search**
USPC Plt./287
CPC A01H 5/02
See application file for complete search history.

Primary Examiner — Kent L Bell
(74) *Attorney, Agent, or Firm* — C. A. Whealy

(57) **ABSTRACT**

A new and distinct cultivar of *Chrysanthemum* plant named 'DLFABB12', characterized by its upright plant habit; vigorous growth habit; dark green-colored leaves; uniform and freely flowering habit; strong upright flowering stems with numerous inflorescences; decorative pompon-type inflorescences with red purple to purple and white-colored ray florets; excellent postproduction longevity; and tolerance to low and high temperatures.

2 Drawing Sheets

Botanical designation: *Chrysanthemum* X *morifolium*.
Cultivar denomination: 'DLFABB12'.

CROSS-REFERENCED TO CLOSELY RELATED APPLICATIONS

Title: Varieties of *Chrysanthemum* Plants
Applicant: Arie Gerard Post
Provisional application Ser. No. 62/764,554
Filed: Aug. 7, 2018

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Chrysanthemum* plant, botanically known as *Chrysanthemum* X *morifolium*, commercially grown as a cut flower and hereinafter referred to by the name 'DLFABB12'.

The new *Chrysanthemum* plant is a product of a planned breeding program conducted by the Inventor in Maasdijk, The Netherlands. The objective of the breeding program is to create new freely-flowering cut *Chrysanthemum* plants with attractive inflorescences, strong flowering stems and excellent postproduction longevity.

The new *Chrysanthemum* plant originated from a cross-pollination on Sep. 8, 2014 of a proprietary selection of *Chrysanthemum* x *morifolium* identified as code number DB 11952 as the female, or seed, parent with a proprietary selection of *Chrysanthemum* x *morifolium* identified as code number DB 9874 as the male, or pollen, parent. The new *Chrysanthemum* plant was discovered and selected as a single flowering plant from within the progeny of the stated cross-pollination in a controlled greenhouse environment in Maasdijk, The Netherlands on Jan. 25, 2016.

Asexual reproduction of the new *Chrysanthemum* plant by vegetative terminal cuttings was first conducted in Maasdijk, The Netherlands since Jan. 25, 2016 and has shown that the unique features of this new *Chrysanthemum* plant are stable and reproduced true to type in successive generations of asexual reproduction.

SUMMARY OF THE INVENTION

Plants of the new *Chrysanthemum* have not been observed under all possible combinations of environmental conditions and cultural practices. The phenotype may vary somewhat with variations in environmental conditions 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 'DLFABB12'. These characteristics in combination distinguish 'DLFABB12' as a new and distinct *Chrysanthemum* plant:

1. Upright plant habit; vigorous growth habit.
2. Dark green-colored leaves.
3. Uniform and freely flowering habit.
4. Strong upright flowering stems with numerous inflorescences.
5. Decorative pompon-type inflorescences with red purple to purple and white-colored ray florets.
6. Excellent postproduction longevity.
7. Relatively tolerant to low and high temperatures.

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

1. Ray florets of plants of the new *Chrysanthemum* are red purple to purple and white in color whereas ray florets of plants of the female parent selection are very light purple in color.
2. Plants of the new *Chrysanthemum* are more resistant to *Fusarium* 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 larger inflorescences than plants of the male parent selection.
2. Ray florets of plants of the new *Chrysanthemum* are red purple to purple and white in color whereas ray florets of plants of the male parent selection are greyed orange in color.

Plants of the new *Chrysanthemum* can be compared to plants of *Chrysanthemum* X *morifolium* 'Delidante', not patented. In side-by-side comparisons plants of the new *Chrysanthemum* differ primarily from plants of 'Delidante' in the following characteristics:

1. Plants of the new *Chrysanthemum* have smaller inflorescences than plants of 'Delidante'.
2. Ray florets of plants of the new *Chrysanthemum* are red purple to purple and white in color whereas ray florets of plants of 'Delidante' are very light purple in color.
3. Ray floret apices of plants of the new *Chrysanthemum* are emarginate whereas ray floret apices of 'Delidante' are acute.

Plants of the new *Chrysanthemum* can also be compared to plants of *Chrysanthemum* X *morifolium* 'DLFPIP12', not patented. In side-by-side comparisons plants of the new *Chrysanthemum* differ primarily from plants of 'DLFPIP12' in the following characteristics:

1. Plants of the new *Chrysanthemum* have smaller inflorescences than plants of 'DLFPIP12'.
2. Ray florets of plants of the new *Chrysanthemum* are red purple to purple and white in color whereas ray florets of plants of 'DLFPIP12' are very light purple in color.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

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

The photograph on the first sheet comprises a side perspective view of a typical flowering stem of 'DLFABB12' grown as a spray-type.

The photograph on the second sheet comprises close-up views of the lower (top of the photographic sheet) and upper surfaces (bottom of the photographic sheet) of typical inflorescences and leaves of 'DLFABB12'.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations and measurements describe plants grown during the spring in ground beds in a glass-covered greenhouse in Maasdijk, The Netherlands and under cultural practices typical of commercial cut *Chrysanthemum* production. 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 22° C., night temperatures ranged from 20° C. to 25° C. and light levels averaged 8 klux. Plants were grown as single-stem plants and were ten 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, 2015 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Chrysanthemum* X *morifolium* 'DLFABB12'.

Parentage:

Female, or seed, parent.—Proprietary selection of *Chrysanthemum* X *morifolium* identified as code designation DB 11952, not patented.

Male, or pollen, parent.—Proprietary selection of *Chrysanthemum* X *morifolium* identified as code designation DB 9874, not patented.

Propagation:

Type.—Terminal vegetative cuttings.

Time to initiate roots, summer.—About six days at temperatures about 24° C.

Time to initiate roots, winter.—About eight days at temperatures about 22° C.

Time to produce a rooted young plant, summer.—About twelve days at temperatures about 24° C.

Time to produce a rooted young plant, winter.—About two weeks at temperatures about 22° C.

Root description.—Fine, fibrous; typically creamy white in color, actual color of the roots is dependent on substrate composition, water quality, fertilizers, substrate temperature and physiological age of roots.

Rooting habit.—Freely branching, medium density.

Plant description:

Plant and growth habit.—Herbaceous pompon-type cut flower that is typically grown as a single stem spray-type; upright plant habit; vigorous growth habit and moderate to rapid growth rate.

Plant height, soil level to top of foliar plane.—About 80.4 cm.

Plant height, soil level to top of inflorescence plane.—About 83 cm.

Plant diameter (foliar).—About 21 cm.

Plant diameter (floral).—About 13.3 cm.

Flowering stem length.—About 75.5 cm.

Flowering stem diameter.—About 6 mm.

Flowering stem internode length.—About 2.3 cm.

Flowering stem strength.—Strong.

Flowering stem aspect.—Erect.

Flowering stem texture and luster.—Moderately pubescent; slightly glossy.

Flowering stem color, developing.—Close to 143B, at the internodes, close to 146B to 146C.

Flowering stem color, developed.—Close to 146B and 146C; longitudinal ridges, close to 197B to 197C.

Leaf description.—Arrangement: Alternate; simple. Length: About 12 cm. Width: About 6.7 cm. Shape: Elliptic. Apex: Short apiculate. Base: Narrowly attenuate. Margin: Palmately lobed, coarsely crenate to dentate; sinuses convergent and medium to deep in depth. Texture and luster, upper surface: Moderately to densely pubescent, not rugose; moderately velvety; very slightly glossy. Texture and luster, lower surface: Moderately to densely pubescent, prominent venation; moderately velvety; matte. Venation pattern: Pinnate, reticulate. Color: Developing leaves, upper surface: Close to NN137B.

Developing leaves, lower surface: Close to 147B. Fully developed leaves, upper surface: Close to NN137A; venation, close to 146C. Fully developed leaves, lower surface: Close to 147B; venation, close to 147C. Petioles: Length: About 2.2 cm. Diameter: About 2.5 mm by 3 mm. Strength: Moderately strong. Texture and luster, upper and lower surfaces: Moderately to densely pubescent; moderately glossy. Color, upper surface: Close to 146C; edges, close to NN137B. Color, lower surface: Close to 147C; edges, close to between 146B and 147B. Stipules: Quantity and appearance: Two leafy stipules, opposite, at the petiole attachment to the stem. Length: About 8 mm. Width: About 1.2 cm. Shape: Flabellate. Apex: Incised. Base: Cuneate. Texture and luster, upper surface: Moderately to densely pubescent, not rugose; moderately velvety; very slightly glossy. Texture and luster, lower surface: Moderately to densely pubescent, prominent venation; moderately velvety; matte. Color: Upper surface: Close to NN137A; venation, close to 146C. Lower surface: Close to 147B; venation, close to 147C.

Inflorescence description:

Appearance.—Pompon-type (decorative) inflorescence form with oblanceolate-shaped ray florets; inflorescences borne perpendicular to peduncles and face mostly upright to slightly outwardly; ray florets develop acropetally on a capitulum.

Fragrance.—Faintly fragrant; sweet.

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); plants exposed to two weeks of long day/short night conditions after planting followed by photoinductive short day/long night conditions flower about 70 days later when grown as a spray-type; uniform flowering habit.

Postproduction longevity.—Good postproduction longevity; in an interior environment, inflorescences and foliage will maintain good color and substance for about two weeks; inflorescences persistent.

Quantity of inflorescences.—Freely flowering habit; when grown as a spray-type, about 16 inflorescences develop per flowering stem.

Inflorescence size.—Diameter: About 4.4 cm. Depth (height): About 1.7 cm.

Receptacles.—Height: About 5 mm. Diameter: About 7 mm. Shape: Flattened globular. Color: Close to 193A.

Inflorescence buds.—Height: About 9 mm. Diameter: About 1.3 cm. Shape: Flattened globular. Texture and luster: Distally, smooth and glabrous; proximally, sparsely to moderately pubescent; slightly glossy. Color: Close to 143A; immature ray florets, close to 70D.

Ray florets.—Quantity and arrangement: About 250 arranged in about ten whorls. Length: About 0.7 cm to 2.1 cm. Width: About 0.1 cm to 1.1 cm. Shape: Oblanceolate; moderately to strongly concave; slightly to moderately carinate. Apex: Emarginate to praemorse. Base: Attenuate. Margin: Entire; not undulate. Aspect: Initially upright to eventually about 90° from vertical. Texture and luster, upper surface: Smooth, glabrous; moderately velvety; not rugose; very slightly glossy. Texture and luster, lower surface: Smooth, glabrous; slightly velvety; not rugose; slightly glossy. Color: When opening, upper surface: Close to 145C; distally, close to 70A to 70B; at the base, close to 144C. When opening, lower surface: Close to 145C; distally, close to 70B; at the base, close to 144C. Fully opened, upper surface: Close to NN155D; towards the apex, close to 75B; at the base, close to 144C; venation, similar to lamina colors; color does not change with development. Fully opened, lower surface: Close to NN155D; towards the apex, close to 75A; at the base, close to 144C; venation, similar to lamina colors; color does not change with development.

Disc florets.—To date, disc floret development has not been observed on plants of the new *Chrysanthemum.*

Involucral bracts.—Quantity and arrangement: About 20 arranged in two whorls. Length: About 1.2 cm. Width: About 5 mm. Shape: Oblong to narrowly ovate. Apex: Obtuse. Base: Cuneate. Margin: Entire. Texture and luster, upper surface: Smooth, glabrous; glossy. Texture and luster, lower surface: Sparsely to moderately pubescent; slightly glossy. Color, upper surface: Close to 146A; margins, translucent, and close to 157D; apices, close to N199A. Color, lower surface: Close to 137B; margins, translucent, close to 157D; apices, close to N199A.

Peduncles.—Length, terminal peduncle: About 7.3 cm. Diameter, terminal peduncle: About 3 mm. Length, third peduncle: About 6.4 cm. Diameter, third peduncle: About 2.5 mm. Strength: Strong. Aspect, terminal peduncle: Mostly upright. Aspect, third peduncle: About 30° from the flowering stem axis. Texture and luster: Moderately pubescent; matte. Color: Close to 137C.

Reproductive organs.—Androecium: Androecium development has not been observed on plants of the new *Chrysanthemum.* Gynoecium: Present on ray florets. Quantity: One per floret. Pistil length: About 5 mm. Style length: About 4 mm. Style color: Close to 145B. Stigma diameter: About 1 mm. Stigma shape: Cleft, decurrent. Stigma color: Close to 153D. Ovary color: Close to 145D.

Seeds and fruits.—To date, seed and fruit production have not been observed on plants of the new *Chrysanthemum.*

Pathogen & pest resistance: Plants of the new *Chrysanthemum* have been observed to be resistant to *Fusarium* Wilt (*Fusarium oxysporum f.* sp. *chrysanthemi*), White Rust (*Puccinia horiana*) and *Verticillium* Wilt (*Verticillium dahliae*). To date, resistance to pests and other pathogens common to *Chrysanthemum* plants has not been observed on plants of the new *Chrysanthemum* grown under commercial conditions.

Temperature tolerance: Plants of the new *Chrysanthemum* have been observed to tolerate temperatures ranging from about −12° C. to 35° C. and to be suitable for USDA Hardiness Zones 8 to 10.

It is claimed:

1. A new and distinct *Chrysanthemum* plant named 'DLFABB12' as illustrated and described.

* * * * *