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(12) United States Plant Patent Post**(10) Patent No.: US PP30,717 P3**
(45) Date of Patent: Jul. 16, 2019**(54) CHRYSANTHEMUM PLANT NAMED 'DLFIND3'****(50) Latin Name: *Chrysanthemum X morifolium***
Varietal Denomination: DLFIND3**(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.: 15/932,784****(22) Filed: Apr. 23, 2018****(65) Prior Publication Data**

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Related U.S. Application Data**(60) Provisional application No. 62/602,772, filed on May 5, 2017.****(51) Int. Cl.**
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A01H 6/14 (2018.01)**(52) U.S. Cl.**
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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 'DLFIND3', characterized by its strong and upright flowering stems; moderately vigorous to vigorous growth habit; relatively short response time; uniform and freely flowering habit; decorative inflorescences with light purple-colored ray florets; and good postproduction longevity.**2 Drawing Sheets****1**Botanical designation: *Chrysanthemum X morifolium*.
Cultivar denomination: 'DLFIND3'.**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 'DLFIND3'.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 decorative inflorescences, strong flowering stems and excellent postproduction longevity.The new *Chrysanthemum* plant originated from a cross-pollination made by the Inventor in Maasdijk, The Netherlands in February, 2012, of a proprietary selection of *Chrysanthemum X morifolium* identified as code designation DB 37263, not patented, as the female, or seed, parent with a proprietary selection of *Chrysanthemum X morifolium* identified as code designation DB 28990, not patented, as the male, or pollen, parent. 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 Maasdijk, The Netherlands in September, 2012.Asexual reproduction of the new *Chrysanthemum* plant by terminal vegetative cuttings in a controlled greenhouse environment in Maasdijk, The Netherlands since September, 2012 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 combinations of environmental conditions**2**

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 'DLFIND3'. These characteristics in combination distinguish 'DLFIND3' as a new and distinct *Chrysanthemum* plant:

1. Strong and upright flowering stems.
2. Moderately vigorous to vigorous growth habit.
3. Relatively short response time.
4. Uniform and freely flowering habit.
5. Decorative inflorescences with light purple-colored ray florets.
6. Good postproduction longevity; plants maintain good substance for about two weeks 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 larger inflorescences 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 lighter purple-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 freely flowering than plants of the male parent selection.
2. Plants of the new *Chrysanthemum* have larger inflorescences than plants of the male parent selection.

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

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

1. Plants of the new *Chrysanthemum* and 'Delibaltica Pink' differ in ray floret color as plants of 'Delibaltica Pink' have light violet-color ray florets.

2. Plants of the new *Chrysanthemum* are more resistant to *Chrysanthemum* White Rust (*Puccinia horiana*) than plants of 'Delibaltica Pink'.

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

1. Plants of the new *Chrysanthemum* are more freely flowering than plants of 'Delivenice'.

2. Plants of the new *Chrysanthemum* and 'Delivenice' differ in ray floret color as plants of 'Delivenice' have light red purple-color ray florets.

3. Plants of the new *Chrysanthemum* are more resistant to *Chrysanthemum* White Rust (*Puccinia horiana*) than plants of 'Delivenice'.

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 'DLFIND3' 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 'DLFIND3'.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations and measurements describe plants grown during the winter 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 25° C., night temperatures ranged from 20° C. to 22° C. and light levels averaged 8 klux. 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, 2015 Edition, except where general terms of ordinary dictionary significance are used. Botanical classification: *Chrysanthemum X morifolium* 'DLFIND3'.

Parentage:

Female, or seed, parent.—Proprietary selection of *Chrysanthemum X morifolium* identified as code designation DB 37263, not patented.

Male, or pollen, parent.—Proprietary selection of *Chrysanthemum X morifolium* identified as code designation DB 28990, 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 cream 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 decorative cut flower that is typically grown as a spray-type; upright plant habit; moderately vigorous to vigorous growth habit and moderate to rapid growth rate.

Plant height, soil level to top of foliar plane.—About 75 cm.

Plant height, soil level to top of flower plane.—About 90 cm.

Plant (spray) diameter.—About 16.9 cm.

Flowering stem length.—About 57.2 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.—Densely pubescent; slightly glossy.

Flowering stem color, developing.—Close to 143C.

Flowering stem color, developed.—Close to 146B; at the internodes, close to 147D.

Leaf description.—Arrangement: Alternate; simple. Length: About 11 cm. Width: About 7.9 cm. Shape: Ovate. Apex: Short apiculate. Base: Attenuate. Margin: Palmately lobed, coarsely crenate; sinuses convergent and medium to deep in depth. Texture and luster, upper surface: Densely pubescent, not rugose; moderately velvety; matte. Texture and luster, upper surface: Densely pubescent, prominent venation; slightly velvety; matte. Venation pattern: Pinnate, reticulate. Color: Developing leaves, upper surface: Close to NN137A. Developing leaves, lower surface: Close to 147A. Fully developed leaves, upper surface: Darker than between NN137A and 147A; venation, close to 143C. Fully developed leaves, lower surface: Close to 147B; venation, close to 138B. Petioles: Length: About 3.3 cm. Diameter: About 2.5 mm by 3 mm. Strength: Moderately strong. Texture and luster, upper and lower surfaces: Densely pubescent; matte. Color, upper surface: Close to 144A; edges, close to NN137A. Color, lower surface: Close to 147B and 147C; edges, close to 137A. Stipules: Quantity and appearance: Two leafy stipules, opposite, at the petiole attachment to

the stem. Length: About 1.1 cm. Width: About 1.4 cm. Shape: Roughly reniform; three-lobed. Texture and luster, upper and lower surfaces: Densely pubescent; matte. Color, upper surface: Darker than between NN137A and 147A. Color, lower surface: Close to 147B.

Inflorescence description:

Appearance.—Decorative inflorescence form with oblanceolate-shaped ray florets and tubular disc florets; inflorescences borne perpendicular to peduncles and face mostly upright to slightly outwardly; ray and disc florets develop acropetally on a capitulum.

Fragrance.—Faintly 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 habit and short response time, plants exposed to two weeks of long day/short night conditions after planting followed by photoinductive short day/long night conditions flower about 55 days later when grown as a spray-type.

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 28 inflorescences develop per flowering stem.

Inflorescence size.—Diameter: About 8.3 cm. Depth (height): About 3.1 cm. Disc diameter: About 4 mm.

Receptacles.—Height: About 4 mm. Diameter: About 6 mm. Shape: Flattened globular. Color: Close to 145C.

Inflorescence buds.—Height: About 1.2 cm. Diameter: About 1.1 cm. Shape: Broadly ovoid. Texture and luster: Densely pubescent; slightly glossy. Color: Close to 137B, NN137B and 157D; towards the apex, close to 70B (immature ray florets).

Ray florets.—Quantity and arrangement: About 260 arranged in about eight whorls. Length: About 4.3 cm. Width: About 1.1 cm. Shape: Oblanceolate. Apex: Obtuse to shallowly retuse. Base: Attenuate. Margin: Entire. Aspect: Initially upright to about 85° from vertical. Texture and luster, upper surface: Smooth, glabrous; velvety; slightly glossy. Texture and luster, lower surface: Smooth, glabrous; moderately velvety; moderately glossy. Color: When opening, upper surface: Close to N75B to N75C fading towards the base to close to N74C. When opening, lower surface: Close to N75B to N75C fading towards the base to close to N74A. Fully opened, upper surface: Close to 75B; venation, close to 75B; color does not fade with development. Fully opened, lower surface: Close to between 75B to 75C; venation, close to between 75B to 75C; color does not fade with development.

Disc florets.—Quantity and arrangement: About 15 spirally arranged in about three whorls at the center of the receptacle. Length: About 7 mm. Diameter: About 1.5 mm. Shape: Lower 85% fused into a tube; upper 15% free. Apex: Acute. Margin: Entire. Texture and luster, inner and outer surfaces: Smooth, glabrous; glossy. Color, when opening, inner and outer surfaces: Apex: Close to 154A. Mid-section: Close to 154C. Base: Close to 150D. Color, fully opened, inner and outer surfaces: Apex: Close to 154A. Mid-section: Close to 154C. Base: Close to 150D.

Involucral bracts.—Quantity and arrangement: About 24 arranged in three whorls. Length: About 1 cm. Width: About 5 mm. Shape: Ovate. Apex: Obtuse. Base: Cuneate. Margin: Entire. Texture and luster, upper surface: Smooth, glabrous; glossy. Texture and luster, lower surface: Densely pubescent; matte. Color, upper surface: Close to 143A; margins, translucent, and close to 164D and 199B. Color, lower surface: Close to 137B; margins, translucent, close to 164D and 199D.

Peduncles.—Length, terminal peduncle: About 2.8 cm. Diameter, terminal peduncle: About 3 mm. Length, third peduncle: About 4.9 cm. Diameter, third peduncle: About 3 mm. Strength: Strong. Aspect, terminal peduncle: Mostly upright. Aspect, third peduncle: About 50° from the flowering stem axis. Texture and luster: Moderately to densely pubescent; slightly glossy. Color: Close to 143A.

Reproductive organs.—Androecium: Present on disc florets only. Quantity: About five per floret. Filament length: About 2 mm. Filament color: Close to 145D. Anther size: About 0.5 mm by 3 mm. Anther shape: Narrowly oblong. Anther color: Close to 12A. Pollen amount: Scarce. Pollen color: Close to 15A. Gynoecium: Present on both ray and disc florets. Quantity: One per floret. Pistil length: About 6.5 mm. Style length: About 6 mm. Style color: Close to 144C. Stigma diameter: About 1.5 mm. Stigma shape: Cleft, decurrent. Stigma color: Close to 154B. Ovary color: Close to between 145D and 157D.

Seeds and fruits.—Seed and fruit production have not been observed on plants of the new *Chrysanthemum* to date.

Disease & pest resistance: Plants of the new *Chrysanthemum* have been observed to be resistant to Fusarium Wilt (*Fusarium oxysporum* f. sp. *chrysanthemi*) and *Chrysanthemum* White Rust (*Puccinia horiana*). 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.

It is claimed:

1. A new and distinct *Chrysanthemum* plant named 'DLFIND3' as illustrated and described.

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