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Post

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(54) ***CHRYSANTHEMUM* PLANT NAMED 'DLFSAMP2'**

(50) Latin Name: ***Chrysanthemum* X *morifolium***
Varietal Denomination: **DLFSAMP2**

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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.

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Related U.S. Application Data

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A01H 5/02 (2018.01)
A01H 6/14 (2018.01)

(52) **U.S. Cl.**
USPC **Plt./289**

(58) **Field of Classification Search**
USPC Plt./289, 295
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See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct cultivar of *Chrysanthemum* plant named 'DLFSAMP2', characterized by its upright plant habit; uniform growth habit; dark green-colored leaves; uniform and freely flowering habit; strong upright flowering stems; pompon-type inflorescences with bright yellow-colored ray florets; resistance to White Rust; and excellent postproduction longevity.

1 Drawing Sheet

Botanical designation: *Chrysanthemum* X *morifolium.*
Cultivar denomination: 'DLFSAMP2'.

CROSS-REFERENCED TO CLOSELY-RELATED APPLICATIONS

Title: Varieties of *Chrysanthemum* Plants
Inventor/Applicant: Arie Gerard Post
Filed: Oct. 17, 2020
Ser. No. 63/093,198
Inventor/Applicant hereby claims the benefit of this provisional U.S. Patent Application.

STATEMENT REGARDING PRIOR DISCLOSURES BY INVENTOR/APPLICANT & ASSIGNEE

A Colombian Plant Breeders' Rights application for the instant plant was filed by the Assignee, Deliflor Royalties B.V. of Maasdijk, The Netherlands on Dec. 30, 2020, application number A202740. Foreign priority is not claimed to this application.

The Inventor/Applicant and Assignee assert that no publications nor advertisements relating to sales, offers for sale or public distribution occurred more than one year prior to the effective filing date of this application. Any information about the claimed plant would have been obtained from a direct or indirect disclosure from the Inventor/Applicant and/or the Assignee. Inventor/Applicant and Assignee claim a prior art exception under 35 U.S.C. 102(b)(1) for disclosure and/or sales prior to the filing date but less than one year prior to the effective filing date.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Chrysanthemum* plant, botanically known as *Chrysanthemum* x *morifolium*, typically grown as a cut flower *Chrysanthemum* and hereinafter referred to by the name 'DLFSAMP2'.

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 cut flower *Chrysanthemum* plants with numerous attractive inflorescences.

The new *Chrysanthemum* plant originated from a cross-pollination in February, 2015 of a proprietary selection of *Chrysanthemum* x *morifolium* identified as code number KR 2011.1108-13, not patented, as the female, or seed, parent with a proprietary selection of *Chrysanthemum* x *morifolium* identified as code number KR 11567, not patented, 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 in January, 2016.

Asexual reproduction of the new *Chrysanthemum* plant by vegetative terminal cuttings since January, 2016 in a controlled greenhouse environment in Maasdijk, The Netherlands, 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 'DLFSAMP2'. These characteristics in combination distinguish 'DLFSAMP2' as a new and distinct *Chrysanthemum* plant:

1. Upright plant habit; uniform growth habit.
2. Dark green-colored leaves.
3. Uniform and freely flowering habit.
4. Strong upright flowering stems.
5. Pompon-type inflorescences with bright yellow-colored ray florets.
6. Resistant to White Rust (*Puccinia horiana*).
7. Excellent postproduction longevity.

Plants of the new *Chrysanthemum* differ primarily from plants of the female parent selection in ray floret color as ray florets of plants of the new *Chrysanthemum* are bright yellow in color whereas ray florets of plants of the female parent selection are white in color. In addition, plants of the new *Chrysanthemum* have larger inflorescences than plants of the female parent selection.

Plants of the new *Chrysanthemum* differ primarily from plants of the male parent selection in ray floret color as ray florets of plants of the new *Chrysanthemum* are bright yellow in color whereas ray florets of plants of the male parent selection are yellow green to white in color.

Plants of the new *Chrysanthemum* can also be compared to plants of *Chrysanthemum* X *morifolium* 'DLFONUT2', not patented. In side-by-side comparisons, plants of the new *Chrysanthemum* differ primarily from plants of 'DLFONUT2' in the following characteristics:

1. Plants of the new *Chrysanthemum* have denser inflorescences with more ray florets than plants of 'DLFONUT2'.
2. Ray florets of plants of the new *Chrysanthemum* are darker yellow in color than ray florets of plants of 'DLFONUT2'.
3. Ray florets of plants of the new *Chrysanthemum* are more concave than ray florets of plants of 'DLFONUT2'.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying 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. The photograph at the top of the sheet (FIG. **1**) comprises a side perspective view of a typical flowering stem of 'DLFSAMP2' grown as a spray-type cut flower.

The photograph at the bottom of the sheet (FIG. **2**) is a close-up view of upper (left) and lower (right) surfaces of typical inflorescences (top of figure) and typical leaves (bottom of figure) of 'DLFSAMP2'.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations and measurements describe plants grown during the autumn 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 grown as single-stem spray-type plants and 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* 'DLFSAMP2'.

Parentage:

Female, or seed, parent.—Proprietary selection of *Chrysanthemum* x *morifolium* identified as code number KR 2011.1108-13, not patented.

Male, or pollen, parent.—Proprietary selection of *Chrysanthemum* x *morifolium* identified as code number KR 11567, not patented.

Propagation:

Type.—Terminal vegetative cuttings.

Time to initiate roots, summer.—About four days at temperatures about 20° C.

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

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

*Time to produce a rooted young plant, winter.***13** About 15 days at temperatures about 20° C.

Root description.—Fine, fibrous; typically light brown 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 rapid growth rate.

Plant height, soil level to top of foliar plane.—About 66.6 cm.

Plant height, soil level to top of inflorescence plane.—About 68.5 cm.

Plant (spray) diameter.—About 22.7 cm.

Flowering stem length.—About 60.8 cm.

Flowering stem diameter.—About 6 mm.

Flowering stem internode length.—About 2.7 cm.

Flowering stem strength.—Strong.

Flowering stem aspect.—Erect.

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

Flowering stem color, developing.—Close to between 143A and 144A.

Flowering stem color, developed.—Close to 146A.

Leaf description.—Arrangement: Alternate; simple. Length: About 12.3 cm. Width: About 9.4 cm. Shape, in overall outline: Broadly ovate to broadly oblong. Apex: Abruptly acute, minute. Base: Attenuate. Margin: Palmately lobed, coarsely crenate to dentate; sinuses convergent and medium in depth. Texture and luster, upper surface: Densely pubescent, not rugose; moderately velvety; slightly glossy. Texture and luster, lower surface: Densely pubescent, prominent venation; slightly velvety; matte. Venation pattern: Pinnate, reticulate. Color: Developing leaves, upper surface: Close to between 137B and 143A.

Developing leaves, lower surface: Close to 146B. Fully developed leaves, upper surface: Close to between NN137A and 139A; venation, close to 147B. Fully developed leaves, lower surface: Close to 147B; venation, close to 146D. Petioles: Length: About 1.2 cm. Diameter: About 2.5 mm by 3.5 mm. Strength: Moderately strong. Texture and luster, upper and lower surfaces: Densely pubescent; slightly glossy. Color, upper surface: Close to 146B; edges, close to NN137B. Color, lower surface: Close to 146B; edges, close to 147B. Stipules: Quantity, appearance and arrangement: Two leafy stipules, opposite, at the petiole attachment to the stem. Length: About 1.8 cm. Width: About 1.3 mm. Shape, in overall outline: Roughly obovate to reniform with praemorse or emarginate apices. Texture and luster, upper surface: Densely pubescent; slightly glossy. Texture and luster, lower surface: Densely pubescent; matte. Color, upper surface: Close to between NN137A and 139A. Color, lower surface: Close to 147B.

Inflorescence description:

Appearance.—Pompon-type inflorescence form with obovate- shaped ray florets and tubular disc florets; inflorescences borne perpendicular to peduncles and face mostly upright; ray and disc florets develop acropetally on a capitulum.

Fragrance.—Faintly fragrant; typical of *Chrysanthemums*.

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 46 days later when grown as a spray-type.

Postproduction longevity.—Good postproduction longevity; after a seven-day storage period, cut flowers will maintain good color and substance for about two to three weeks in an interior environment; inflorescences persistent.

Quantity of inflorescences.—Typically grown as a spray-type, about 32 inflorescences develop per flowering stem.

Inflorescence size.—Diameter, grown as a spray-type: About 4.1 cm. Depth (height), grown as a spray-type: About 2.7 cm. Disc diameter, grown as a spray-type: About 4 mm; inconspicuous.

Receptacles.—Height: About 3.5 mm. Diameter: About 3.5 mm. Shape: Spherical. Color: Close to 147D.

Inflorescence buds.—Height: About 1.1 cm. Diameter: About 1.3 cm. Shape: Flattened globular. Texture and luster: Distally, smooth and glabrous; proximally, moderately pubescent; slightly glossy. Color: Developing involucral bracts, close to 137B and 138B to 138D; developing ray florets, close to 1A and distally, close to N144C.

Ray florets.—Quantity and arrangement: About 190 arranged in about seven whorls. Length: About 1.6 cm. Width: About 5 mm. Shape: Obovate; strongly concave, slightly carinate. Apex: Emarginate. Base: Attenuate. Margin: Entire; not undulate. Aspect: About 10° to 90° from vertical. Texture and luster, upper surface: Smooth, glabrous; moderately velvety; matte. Texture and luster, lower surface: Smooth, glabrous; slightly velvety; slightly glossy. Color: When opening, upper surface: Close to 6A. When opening, lower surface: Close to 3A to 3B; distally, close to 150A to 150B. Fully opened, upper surface: Close to 6A; venation, close to 6A; color does not change with subsequent development. Fully opened, lower surface: Close to 5B; venation, close to 5B; color does not change with subsequent development.

Disc florets.—Quantity and arrangement: About ten at the center of the receptacle. Length: About 6 mm. Diameter: About 1 mm. Shape: Lower 85% fused into a tube; upper 15% free. Apex: Acute. Margin, free-part: Entire. Texture and luster, inner and outer surfaces: Smooth, glabrous; glossy. Color, when opening, inner surface: Apex: Close to N144C. Mid-section and base: Close to 145D. Color, when opening, outer surface: Apex: Close to N144A. Mid-section and base: Close to 145D. Color, fully opened, inner and outer surfaces: Apex: Close to 3A to 3B. Mid-section and base: Close to 145D.

Involucral bracts.—Quantity and arrangement: About 26 arranged in about two whorls. Length: About 9 mm. Width: About 3.5 mm. Shape: Ovate to narrowly ovate. Apex: Obtuse. Base: Cuneate. Margin: Entire. Texture and luster, upper surface: Smooth, glabrous; glossy. Texture and luster, lower surface: Moderately pubescent; matte. Color, upper surface: Close to 137A; lateral margins, translucent and close to 157D and apical margins tinged with close to N199A. Color, lower surface: Close to 137B; lateral margins, translucent and close to 157D and apical margins tinged with close to N199A.

Peduncles.—Length, terminal peduncle: About 4 cm. Diameter, terminal peduncle: About 2 mm. Length, third peduncle: About 6.4 cm. Diameter, third peduncle: About 2 mm. Strength: Strong. Aspect, terminal peduncle: Upright. Aspect, third peduncle: About 50° from the flowering stem axis. Texture and luster: Densely pubescent; moderately glossy. Color: Close to 137B and 138A.

Reproductive organs.—Androecium: Present on disc florets only. Quantity: About five per floret. Filament length: About 3 mm. Filament color: Close to 150C. Anther size: About 0.5 mm by 2 mm. Anther shape: Narrowly oblong. Anther color: Close to 14A. Pollen amount: Scarce. Pollen color: Close to 17A. Gynoecium: Present on both ray and disc florets. Quantity: One per floret. Pistil length: About 6 mm. Style length: About 5 mm. Style color: Close to 145B. Stigma diameter: About 1 mm. Stigma shape: Cleft to three-parted, decurrent. Stigma color: Close to 151D. Ovary color: Close to 157A.

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 White Rust (*Puccinia horiana* (strains PhNL1 and PhBE6)). To date, plants of the new *Chrysanthemum* have not been observed to be resistant to pests and other pathogens common to *Chrysanthemum* plants 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 'DLFSAMP2' as illustrated and described.

* * * * *

FIG. 1

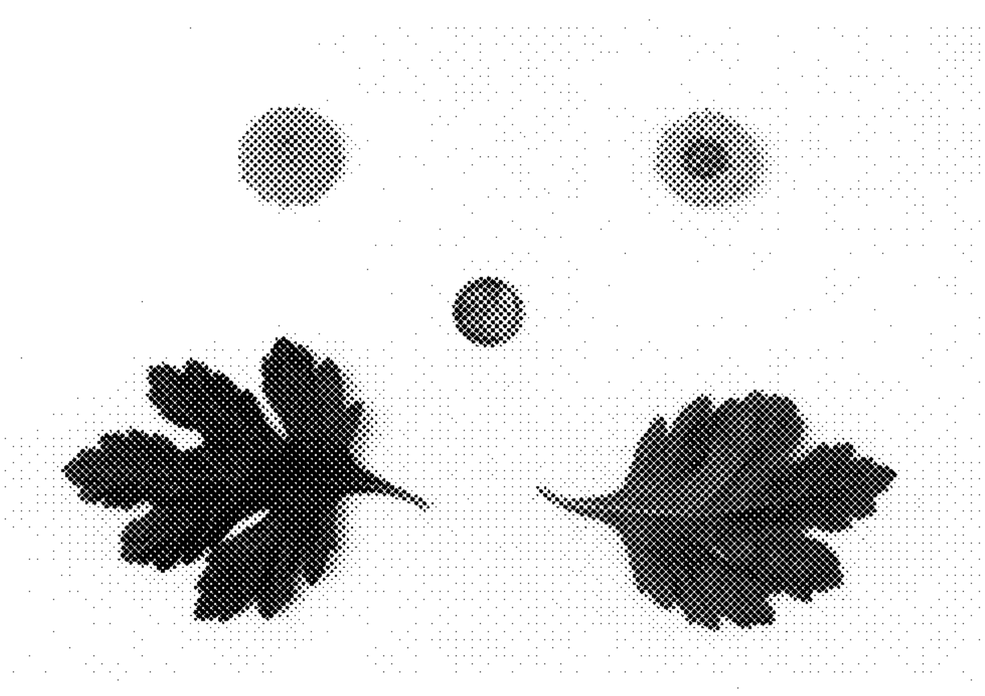

FIG. 2