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(54) ***CHRYSANTHEMUM* PLANT NAMED 'DLFGUAM10'**

(50) Latin Name: ***Chrysanthemum* X *morifolium***
Varietal Denomination: **DLFGUAM10**

(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.

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

(52) **U.S. Cl.**
USPC **Plt./287**
CPC ***A01H 6/1424*** (2018.05); ***A01H 5/02*** (2013.01)

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

Primary Examiner — Keith O. Robinson
(74) *Attorney, Agent, or Firm* — C. Anne Whealy

(57) **ABSTRACT**

A new and distinct cultivar of *Chrysanthemum* plant named 'DLFGUAM10', characterized by its upright plant habit; uniform growth habit; vigorous growth habit and rapid growth rate; durable and robust dark green-colored leaves; strong upright flowering stems; decorative-type inflorescences with white and bright yellow green-colored tubular ray florets; relatively tolerant to high and low production temperatures; and good postproduction longevity.

2 Drawing Sheets

Botanical designation: *Chrysanthemum* X *morifolium*.
Cultivar denomination: 'DLFGUAM10'.

STATEMENT REGARDING PRIOR DISCLOSURES BY INVENTOR/APPLICANT & ASSIGNEE

A Columbian Plant Breeder's Rights application for the instant plant was filed by the Assignee, Deliflor Royalties B.V. of Maasdijk, The Netherlands on Aug. 31, 2021, application number A212825. 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 'DLFGUAM10'.

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 unique and attractive inflorescences.

The new *Chrysanthemum* plant originated from a cross-pollination in April, 2017 of a proprietary selection of *Chrysanthemum* x *morifolium* identified as code number KR 11474, not patented, as the female, or seed, parent with a proprietary selection of *Chrysanthemum* x *morifolium* identified as code number KR 10131, 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 February, 2018.

Asexual reproduction of the new *Chrysanthemum* plant by vegetative terminal cuttings in a controlled greenhouse environment in Maasdijk, The Netherlands since February, 2018 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

The following traits have been repeatedly observed and are determined to be the unique characteristics of 'DLFGUAM10'. These characteristics in combination distinguish 'DLFGUAM10' as anew and distinct *Chrysanthemum* plant:

1. Upright plant habit; uniform growth habit.
2. Vigorous growth habit and rapid growth rate.
3. Durable and robust dark green-colored leaves.
4. Strong upright flowering stems.
5. Decorative-type inflorescences with white and bright yellow green-colored tubular ray florets.

6. Relatively tolerant to high and low production temperatures.
7. Good postproduction longevity.

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

1. Leaves of plants of the new *Chrysanthemum* are not as glossy as leaves of plants of the female parent selection.
2. Inflorescences of plants of the new *Chrysanthemum* are decorative type whereas inflorescences of plants of the female parent selection are anemone types.

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

1. Leaf sinuses of plants of the new *Chrysanthemum* are deeper than leaf sinuses of plants of the male parent selection.
2. Ray florets of plants of the new *Chrysanthemum* are white and bright yellow green in color whereas ray florets of plants of the male parent selection are yellow green in color.

Plants of the new *Chrysanthemum* can be compared to plants of *Chrysanthemum* X *morifolium* 'DLFCOCO5', not patented. In side-by-side comparisons, plants of the new *Chrysanthemum* differ primarily from plants of 'DLFCOCO5' in leaf color as plants of the new *Chrysanthemum* have darker green-colored leaves than plants of 'DLFCOCO5'. In addition, tubular ray florets of plants of the new *Chrysanthemum* are triangular in cross-section whereas tubular ray florets of plants of 'DLFCOCO5' are flattened in cross-section.

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 on the first sheet (FIG. **1**) is a side perspective view of a typical flowering stem of 'DLFGUAM10' grown as a spray-type cut flower.

The photograph on the second sheet (FIG. **2**) is a close-up view of upper (left) and lower (right) surfaces of typical inflorescences and typical leaves of 'DLFGUAM10'.

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 25° C., night temperatures ranged from 20° C. to 22° C. and light levels averaged 7 klux. Plants were grown as single-stem spray-type 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* 'DLFGUAM10'.

Parentage:

Female, or seed, parent.—Proprietary selection of *Chrysanthemum* x *morifolium* identified as code number KR 11474, not patented.

Male, or pollen, parent.—Proprietary selection of *Chrysanthemum* x *morifolium* identified as code number KR 10131, 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.—About 15 days at temperatures about 20° 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 decorative-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 82.1 cm.

Plant height, soil level to top of inflorescence plane.—About 87.1 cm.

Plant (spray) diameter.—About 19.9 cm.

Flowering stem length.—About 80.6 cm.

Flowering stem diameter.—About 6 mm.

Flowering stem internode length.—About 2.9 cm.

Flowering stem strength.—Strong.

Flowering stem aspect.—Erect.

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

Flowering stem color, developing.—Close to 144A.

Flowering stem color, developed.—Close to 146B; at the ridges, close to 148A.

Leaf description.—Arrangement: Alternate; simple. Length: About 11.7 cm. Width: About 6.9 cm. Shape, in overall outline: Broadly elliptic to broadly oblong. Apex: Apiculate. Base: Attenuate. Margin: Palmately lobed, coarsely serrate; sinuses parallel to slightly divergent and medium in depth; not undulate. Texture and luster, upper surface: Sparsely to moderately pubescent, not rugose; slightly velvety; slightly glossy. Texture and luster, lower surface: Moderately pubescent, not rugose; slightly velvety; slightly glossy. Venation pattern: Pinnate. Color: Developing leaves, upper surface: Close to NN137A. Developing leaves, lower surface: Close to 147B. Fully developed leaves, upper surface: Close to a blend of NN137A and 147A; venation, close to 146B. Fully developed leaves, lower surface: Close to 147B; venation, close to 146C. Petioles: Length: About 1.8 cm. Diameter: About 2.5 mm by 4 mm. Strength: Moderately strong. Texture and luster, upper and lower surfaces: Moderately to densely pubescent; moderately glossy. Color, upper

surface: Close to 146B; edges, close to NN137B. Color, lower surface: Close to 146D; edges, close to 147B. Stipules: Quantity and appearance: Two leafy stipules, opposite, at the petiole attachment to the stem. Length: About 7.5 mm. Width: About 1.2 cm. Shape: Reniform; apex, apiculate to acute; base, broadly cuneate; margins, entire. Texture and luster, upper surface: Sparsely to moderately pubescent; slightly glossy. Texture and luster, lower surface: Moderately pubescent; slightly glossy. Color, upper surface: Close to a blend of NN137A and 147A. Color, lower surface: Close to 147B.

Inflorescence description:

Appearance.—Decorative-type inflorescence form with tubular-shaped ray florets and tubular disc florets; inflorescences, rotate and flattened in overall shape; inflorescences borne perpendicular to peduncles and face 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 54 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 weeks in an interior environment; inflorescences persistent.

Quantity of inflorescences.—Typically grown as a spray-type, about 15 inflorescences (varying between 10 and 18) develop per flowering stem.

Inflorescence size.—Diameter: About 6.5 cm. Depth (height): About 2.5 cm. Disc diameter: About 2 mm; inconspicuous.

Receptacles.—Height: About 5 mm. Diameter: About 7 mm. Shape: Flattened globular. Color: Close to 145A and 145C.

Inflorescence buds.—Height: About 9 mm. Diameter: About 1.6 cm. Shape: Roughly spherical. Texture and luster: Moderately pubescent; slightly glossy. Color: Developing involucral bracts, close to 137C and 145B; developing ray florets, close to between 144A and 145A.

Ray florets.—Quantity and arrangement: About 280 arranged in about nine whorls. Length: About 2.7 cm, varying between 0.7 cm and 3.7 cm. Width: About 3 mm, varying between 1 mm and 4 mm. Shape: Tubular; triangular in cross-section. Apex: Obtuse to minutely praemorse. Base: Fused. Margin: Free part, entire; not undulate. Aspect: About 32.5° from vertical, varying from erect to about 65° from vertical. Texture and luster, upper surface: Smooth, glabrous; slightly velvety; matte. Texture and luster, lower surface: Smooth, glabrous; slightly velvety; slightly glossy. Color: When opening, upper and lower surfaces: Close to 145D; towards the base, close to 145B; towards the apex, close to 149C. Fully opened, upper surface: Close to NN155D; towards the base, close to 144D; venation, similar to lamina colors; color does not change with subsequent development. Fully opened, lower surface: Close to NN155D; towards the base, close to 144D; apex tinged with close to 145C; venation, similar to lamina colors; color does not change with subsequent development.

Disc florets.—Quantity and arrangement: About twelve randomly arranged at the center of the receptacle; disc florets typically do not fully develop. Length: About 5 mm. Diameter: About 1 mm. Shape: Tubular. Apex: Obtuse. Margin, free-part: Entire. Texture and luster, inner and outer surfaces: Smooth, glabrous; glossy. Color, when opening: Towards the apex, close to 144B; mid-section and towards the base, close to 157A. Color, fully opened: Towards the apex, close to 144A; mid-section and towards the base, close to 157D.

Involucral bracts.—Quantity and arrangement: About 30 arranged in about three whorls. Length: About 8 mm. Width: About 3 mm. Shape: Oblong to ovate. Apex: Bluntly acute. Base: Cuneate. Margin: Entire. Texture and luster, upper surface: Smooth, glabrous; glossy. Texture and luster, lower surface: Moderately pubescent; matte. Color, upper and lower surfaces: Close to 137B; lateral margins, translucent and close to 196D and apical margins tinged with close to N199A.

Peduncles.—Length: About 4.4 cm. Diameter: About 3 mm. Strength: Strong. Aspect: Upright. Texture and luster: Densely pubescent; slightly glossy. Color: Close to 137B; at the ridges, close to 138A.

Reproductive organs.—Androecium: To date, stamen development has not been observed on plants of the new *Chrysanthemum*. Gynoecium: Present only on ray florets as disc florets do not fully develop. Quantity: One per floret. Pistil length: About 7 mm. Style length: About 6.25 mm. Style color: Close to 144C. Stigma diameter: About 0.75 mm. Stigma shape: Cleft, decurrent. Stigma color: Close to 154A. Ovary color: Close to 157A.

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

Pathogen & pest resistance: To date, plants of the new *Chrysanthemum* have not been observed to be resistant to pathogens and pests 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 'DLFGUAM10' as illustrated and described.

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FIG. 1

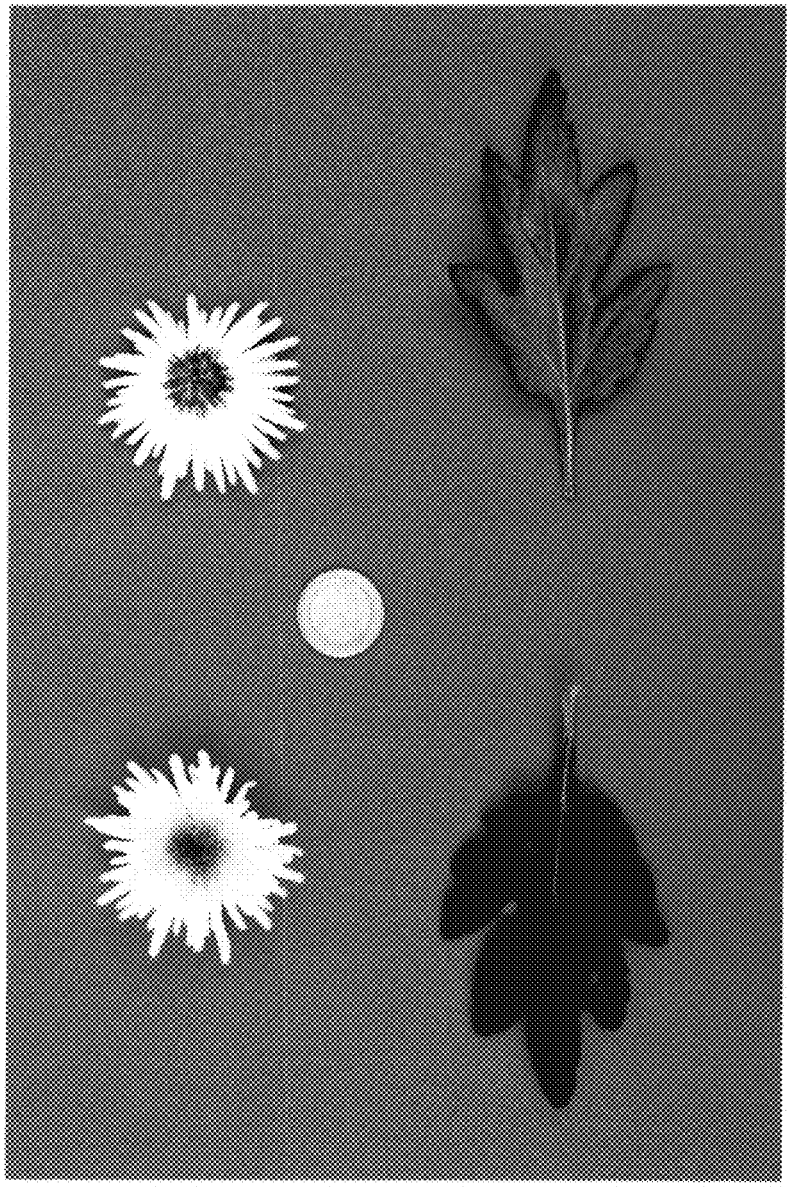

FIG. 2