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

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

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(57) **ABSTRACT**
A new and distinct cultivar of *Chrysanthemum* plant named 'Deliestrella', characterized by its upright and uniform plant habit; vigorous growth habit; strong flowering stems; freely branching habit; early and freely flowering habit; uniform flowering response; decorative-type inflorescences with white-colored ray florets that are spoon-shaped with deeply dentate apices; and good postproduction longevity.

3 Drawing Sheets

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

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 'Deliestrella'.

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 vigorous *Chrysanthemum* plants with unique inflorescence and ray floret forms and excellent postproduction longevity.

The new *Chrysanthemum* plant originated from a cross-pollination made by the Inventor in Maasdijk, The Netherlands in March, 2008 of a proprietary selection of *Chrysanthemum*×*morifolium* identified as code number DB 9707, not patented, as the female, or seed, parent with a proprietary selection of *Chrysanthemum*×*morifolium* identified as code number DB 27807, 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 May, 2009.

Asexual reproduction of the new *Chrysanthemum* plant by terminal cuttings in a controlled greenhouse environment in Maasdijk, The Netherlands since May, 2009 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 environmental conditions and cultural practices. The phenotype may vary somewhat with variations

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

1. Upright and uniform plant habit.
2. Vigorous growth habit.
3. Strong flowering stems.
- 10 4. Freely branching habit.
5. Early and freely flowering habit.
6. Uniform flowering response.
7. Decorative-type inflorescences with white-colored ray florets that are spoon-shaped with deeply dentate apices.
- 15 8. Good postproduction longevity.

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

1. Plants of the new *Chrysanthemum* have larger inflorescences than plants of the female parent selection.
2. Plants of the new *Chrysanthemum* and the female parent selection differ in ray floret color as plants of the female parent selection have cream-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* have larger inflorescences than plants of the male parent selection.
2. Plants of the new *Chrysanthemum* and the male parent selection differ in ray floret shape as plants of the male parent selection have oblong-shaped ray florets.

Plants of the new *Chrysanthemum* can be compared to plants of *Chrysanthemum*×*morifolium* 'Zembla Funky', not patented. In side-by-side comparisons conducted in Maasdijk, The Netherlands, plants of the new *Chrysanthemum* differed from plants of 'Zembla Funky' in the following characteristics:

1. Plants of the new *Chrysanthemum* and 'Zembla Funky' differed in ray floret shape as ray florets of plants of 'Zembla Funky' were curled with slightly dentate apices.

2. Plants of the new *Chrysanthemum* and 'Zembla Funky' differed in ray floret color as ray florets of plants of 'Zembla Funky' were green in color.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS 5

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. 10

The photograph on the first sheet comprises a side perspective view of a typical flowering stem of 'Deliestrella' grown as a spray type. 15

The photograph on the second sheet comprises close-up views of the upper (top of the photographic sheet) and lower surfaces (bottom of photographic sheet) of typical inflorescences and leaves of 'Deliestrella'. 20

The photograph on the third sheet comprises close-up views of typical ray florets of 'Deliestrella'.

DETAILED BOTANICAL DESCRIPTION 25

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 cut *Chrysanthemum* production. Plants were initially given two weeks of 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 7,000 lux. 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, 2007 Edition, except where general terms of ordinary dictionary significance are used. 30

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

Parentage:

Female, or seed, parent.—Proprietary selection of *Chrysanthemum*×*morifolium* identified as code number DB 9707, not patented. 45

Male, or pollen, parent.—Proprietary selection of *Chrysanthemum*×*morifolium* identified as code number DB 27807, not patented. 50

Propagation:

Type.—Terminal vegetative cuttings.

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

Time to initiate roots, winter.—About six days at 20° C. 55

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

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

Root description.—Fine, fibrous; light brown in color. 60

Rooting habit.—Freely branching, medium density.

Plant description:

Plant and growth habit.—Herbaceous decorative-type cut flower that is typically grown as a spray-type; upright and uniform plant habit; vigorous growth habit. 65

Flowering stem description.—Aspect: Erect. Length: About 85 cm. Spray diameter: About 30 cm. Diameter: About 7 mm. Lateral branch length: About 3 cm to 20 cm. Lateral branch diameter: About 3 cm to 6 cm. Internode length: About 3 cm to 4 cm. Strength: Strong. Texture: Pubescent; longitudinally ridged. Color: Close to 146D.

Foliage description.—Arrangement: Alternate; simple. Length: About 8 cm to 16 cm. Width: About 5 cm to 11 cm. Shape: Roughly lanceolate, palmately lobed. Apex: Acuminate. Base: Attenuate. Margin: Palmately lobed, serrate; sinuses parallel to convergent. Texture, upper surface: Pubescent, rough. Texture, lower surface: Pubescent, slightly rough; veins prominent. Venation pattern: Pinnate, reticulate. Color: Developing leaves, upper surface: Close to 146A to 146B. Developing leaves, lower surface: Close to 146B. Fully developed leaves, upper surface: Close to N137A; venation, close to 147B to 147C. Fully developed leaves, lower surface: Close to 147B; venation, close to 147C. Petiole: Length: About 1 cm to 3 cm. Diameter: About 2 mm to 5 mm. Texture, upper and lower surfaces: Pubescent, slightly rough. Color, upper surface: Close to 147C. Color, lower surface: Close to 147C to 147D.

Inflorescence description:

Appearance.—Decorative type inflorescence form with spoon-shaped ray florets with deeply dentate apices; inflorescences borne on terminals, arising from leaf axils; ray and disc florets develop acropetally on a capitulum.

Fragrance.—Moderately fragrant.

Flowering response.—Under natural conditions, plant flower in the autumn and 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 two weeks of long day/short night conditions after planting followed by photoinductive short day/long night conditions flower about 49 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 three weeks; inflorescences persistent.

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

Inflorescence size.—Diameter: About 6 cm to 9 cm. Depth (height): About 3 cm to 3.5 cm. Disc diameter: Few inconspicuous disc florets randomly interspersed among ray florets. Receptacle height: About 5 mm. Receptacle diameter: About 8 mm. Receptacle color: Close to 145C.

Inflorescence buds.—Height: About 3 mm to 4 mm. Diameter: About 7 mm. Shape: Flattened spherical. Color: Close to 137C.

Ray florets.—Length: About 3 cm to 5 cm. Width: About 1 cm to 2.5 cm. Shape: Spoon-shaped; lower 66% of floret is fused, upper portion is strongly dentate. Apex: Acute. Base: Fused. Margin: Entire. Angle: Initially upright to close to 45° from vertical with development. Texture, upper and lower surfaces: Smooth, glabrous; satiny. Number per inflorescence:

About 150 arranged in about ten whorls. Color: When opening, upper and lower surfaces: Close to 145D. Fully opened, upper and lower surfaces: Close to NN155D.

Disc florets.—Shape: Fused tubular, elongated. Apex: 5
Dentate. Length: About 5 mm. Diameter: About 1 mm. Number per inflorescence: About five to ten randomly interspersed among the ray florets. Color: Apex: Close to 145A. Mid-section: Close to 16A. Base: Close to 145D.

Involucral bracts.—Length: About 7 mm to 12 mm. 10
Width: About 2 mm to 7 mm. Shape: Ovate. Apex: Rounded. Base: Rounded to truncate. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous. Number per inflorescence: About 30 arranged in 15
about two to three whorls. Color, upper surface: Close to 137C. Color, lower surface: Close to 137B.

Peduncles.—Length, fourth peduncle: About 9 cm. Length, seventh peduncle: About 14 cm. Diameter:

About 3 mm. Angle: About 30° from vertical. Strength: Strong. Texture: Pubescent; longitudinally ridged. Color: Close to 146B.

Reproductive organs.—Androecium: Not observed. Gynoecium: Not observed.

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

Disease & pest resistance: Plants of the new *Chrysanthemum* have been observed to be tolerant to *Fusarium oxisporum* ssp. *Chrysanthemi*. Plants of the new *Chrysanthemum* have not been observed to resistant to pests and other pathogens common to *Chrysanthemum* plants grown under commercial production conditions.

It is claimed:

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

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