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Pieters

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(54) **CHRYSANTHEMUM PLANT NAMED**
'VIVIANA YELLOW'

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

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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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See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct cultivar of *Chrysanthemum* plant named 'Viviana Yellow', characterized by its compact, upright, outwardly spreading and rounded plant habit; freely branching habit; dense and full plant habit; uniform, freely and early flowering habit; and semi-double type inflorescences with yellow-colored ray florets.

1 Drawing Sheet

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Botanical designation: *Chrysanthemum*×*morifolium*.
Cultivar denomination: 'VIVIANA YELLOW'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Chrysanthemum* plant, botanically known as *Chrysanthemum*×*morifolium*, and hereinafter referred to by the name 'Viviana Yellow'.

The new *Chrysanthemum* plant is a product of a planned breeding program conducted by the Inventor in Oostnieuwkerke, Belgium. The objective of the breeding program is to create new freely flowering *Chrysanthemum* plants with unique and attractive ray floret coloration.

The new *Chrysanthemum* plant originated from a cross-pollination made by the Inventor in Oostnieuwkerke, Belgium in October, 2004 of a proprietary selection of *Chrysanthemum*×*morifolium* identified as code number YO 99 6549NILE, not patented, as the female, or seed, parent with a proprietary selection of *Chrysanthemum*×*morifolium* identified as code number GE 00 1349GELI, not patented. The new *Chrysanthemum* plant was discovered and selected by the Inventor as a flowering plant from within the progeny of the stated cross-pollination in a controlled greenhouse environment in Oostnieuwkerke, Belgium in September, 2005.

Asexual reproduction of the new *Chrysanthemum* plant by vegetative cuttings was first conducted in a controlled greenhouse environment in Oostnieuwkerke, Belgium in January, 2006. Asexual reproduction by cuttings 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. The phenotype may vary somewhat with variations 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 'Viviana Yel-

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low'. These characteristics in combination distinguish 'Viviana Yellow' as a new and distinct *Chrysanthemum* cultivar:

1. Compact, upright, outwardly spreading and rounded plant habit.
2. Freely branching habit; dense and full plant habit.
3. Uniform, freely and early flowering habit.
4. Semi-double type inflorescences with yellow-colored ray florets.

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

1. Plants of the new *Chrysanthemum* flower earlier 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 lighter yellow-colored ray florets.

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

1. Plants of the new *Chrysanthemum* are more vigorous than plants of the male parent selection.
2. Plants of the new *Chrysanthemum* flower later than plants of the male parent selection.

Plants of the new *Chrysanthemum* can be compared to plants of *Chrysanthemum*×*morifolium* 'Lisa', disclosed in U.S. Plant Pat. No. 8,992. In side-by-side comparisons conducted in Oostnieuwkerke, Belgium, plants of the new *Chrysanthemum* differed from plants of 'Lisa' in the following characteristics:

1. Stems of plants of the new *Chrysanthemum* were more flexible than and not as brittle as stems of plants of 'Lisa'.
2. Plants of the new *Chrysanthemum* had smaller inflorescences than plants of 'Lisa'.

BRIEF DESCRIPTION OF THE PHOTOGRAPH

The accompanying photograph illustrates the overall appearance of the new *Chrysanthemum* plant. This photograph shows the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the photograph 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 comprises a side perspective view of a typical flowering plant of 'Viviana Yellow' grown in a container.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photograph and following observations and measurements describe plants grown in 19-cm containers in an outdoor nursery in Oostnieuwkerke, Belgium during the summer and autumn under conditions and practices which approximate those generally used in commercial production. During the production of the plants, day temperatures ranged from 25° C. to 30° C. and night temperatures ranged from 15° C. to 20° C. Plants were 15 weeks old when the photograph and description were taken. In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2005 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Chrysanthemum*×*morifolium* 'Viviana Yellow'.

Parentage:

Female, or seed, parent.—Proprietary selection of *Chrysanthemum*×*morifolium* identified as code number YO 99 6549NILE, not patented.

Male, or pollen, parent.—Proprietary selection of *Chrysanthemum*×*morifolium* identified as code number GE 00 1349GELI, not patented.

Propagation:

Type.—Terminal vegetative cuttings.

Time to initiate roots, summer.—About 14 days at temperatures of about 20° C.

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

Time to produce a rooted young plant, summer.—About 30 days at temperatures of about 20° C.

Time to produce a rooted young plant, winter.—About 40 days at temperatures of about 20° C.

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

Rooting habit.—Freely branching; moderately dense.

Plant description:

Appearance.—Perennial semi-double type *Chrysanthemum*; compact plant habit with stems upright and outwardly spreading giving a uniformly rounded appearance to the plant; very freely branching habit, about 25 primary lateral branches develop, each primary lateral branch with multiple secondary branches; pinching enhances lateral branch development; dense and full plant habit; strong and moderately vigorous growth habit.

Plant height.—About 35 cm.

Plant width.—About 50 cm.

Lateral branches.—Length: About 25 cm. Diameter: About 2 mm to 3 mm. Internode length: About 2 cm. Strength: Strong. Texture: Pubescent; longitudinally ridged. Color: Close to 144A.

Leaves.—Arrangement: Alternate, simple. Length: About 2.5 cm to 4.5 cm. Width: About 2 cm to 3 cm. Apex: Rounded to cuspidate. Base: Attenuate. Margin: Palmately lobed and serrate, sinuses between lateral lobes divergent to parallel. Texture, upper and lower surfaces: Slightly pubescent and rough. Color: Developing leaves, upper surface: Close to 137C. Developing leaves, lower surface: Close to 137D. Fully expanded leaves, upper surface: Close to N137C; venation, close to 148C. Fully expanded leaves, lower surface: Close to 147B; venation, close

to 147B to 147C. Petiole: Length: About 1 cm. Diameter: About 2 mm. Texture, upper and lower surfaces: Pubescent. Color, upper surface: Close to 146C. Color, lower surface: Close to 146D.

5 Inflorescence description:

Appearance.—Semi-double type inflorescence form; inflorescences borne on terminals above foliage; disc and ray florets arranged acropetally on a capitulum.

Fragrance.—Faintly fragrant, pungent.

10 *Flowering response.*—Under natural season conditions, plants flower mid-September in Belgium.

Postproduction longevity.—Inflorescences maintain good color and substance for about 35 days in an outdoor nursery; inflorescences persistent.

15 *Quantity of inflorescences.*—About 20 inflorescences develop per lateral branch.

Inflorescence bud.—Height: About 4 mm. Diameter: About 7 mm. Shape: Globular. Color: Between 144A and 137C.

20 *Inflorescence size.*—Diameter: About 4.5 cm. Depth (height): About 2.5 cm. Disc diameter: About 2 cm. Receptacle diameter: About 3 mm. Receptacle height: About 2.5 mm to 3 mm. Receptacle color: Close to 144B.

Ray florets.—Length: About 1.5 cm to 2 cm. Width: About 5 mm. Shape: Oval. Apex: Rounded. Base: Attenuate. Margin: Entire. Aspect: Mostly flat. Texture, upper and lower surfaces: Smooth, glabrous. Number of ray florets per inflorescence: About 125 to 150 arranged in about five whorls. Color: When opening, upper and lower surfaces: Close to 8C. Fully opened, upper and lower surfaces: Close to 8C; color becoming closer to 4D with development.

Disc florets.—Length: About 3 mm. Diameter: About 0.5 mm to 1 mm. Shape: Tubular, elongated; apices acute. Number of disc florets per inflorescence: About 150. Color: Apex: Close to 144C. Mid-section: Close to 5B. Base: Close to 145D.

Phyllaries.—Number of phyllaries per inflorescence: About 25 arranged in two or three whorls. Length: About 4 mm to 6 mm. Width: About 2 mm to 3 mm. Shape: Ovate. Apex: Rounded. Base: Rounded to truncate. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous. Color, upper surface: Close to 137A. Color, lower surface: Close to N137B.

Peduncles.—Length, terminal peduncle: About 4 cm. Length, fourth peduncle: About 6 cm. Length, seventh peduncle: About 8 cm. Diameter: About 2 mm. Angle: About 30° from vertical. Strength: Moderately strong. Texture: Slightly pubescent. Color: Close to 146B.

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

Seed/fruit.—Seed and fruit production have not been observed.

Disease/pest resistance: Resistance to pathogens and pests common to *Chrysanthemums* has not been observed on plants grown under commercial conditions.

55 Garden performance: Plants of the new *Chrysanthemum* have demonstrated excellent garden performance and will tolerate temperatures ranging from about 0° C. to about 45° C.

It is claimed:

60 1. A new and distinct *Chrysanthemum* plant named 'Viviana Yellow' as illustrated and described.

