



(12) **United States Plant Patent**
Pieters

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(54) **CHRYSANTHEMUM PLANT NAMED**
'NEROLA ORANGE'

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

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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 37 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 'Nerola Orange', characterized by its uniform, upright, outwardly spreading and rounded plant habit; moderately vigorous growth habit; freely branching habit; dense and full plant habit; uniform and freely flowering habit; large decorative-type inflorescences with ray florets that are greyed orange in color becoming yellow orange with subsequent development; and excellent garden performance.

1 Drawing Sheet

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Botanical designation: *Chrysanthemum*×*morifolium*.
Cultivar denomination: 'NEROLA ORANGE'.

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 'Nerola Orange'.

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 September, 2004 of *Chrysanthemum*×*morifolium* 'Conaco', not patented, as the female, or seed, parent with *Chrysanthemum*×*morifolium* 'Graniti', 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 and cultural 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 'Nerola Orange'. These characteristics in combination distinguish 'Nerola Orange' as a new and distinct *Chrysanthemum* plant:

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1. Uniform, upright, outwardly spreading and rounded plant habit; moderately vigorous growth habit.
2. Freely branching habit; dense and full plant habit.
3. Uniform and freely flowering habit.
4. Large decorative-type inflorescences with ray florets that are greyed orange in color becoming yellow orange with subsequent development.
5. Excellent garden performance.

Plants of the new *Chrysanthemum* differ primarily from the female parent, 'Conaco', in the following characteristics:

1. Plants of the new *Chrysanthemum* are not as compact as plants of 'Conaco'.
2. Plants of the new *Chrysanthemum* are flexible and not brittle like plants of 'Conaco'.
3. Plants of the new *Chrysanthemum* and 'Conaco' differ in ray floret color.

Plants of the new *Chrysanthemum* differ primarily from the male parent, 'Graniti', in the following characteristics:

1. Plants of the new *Chrysanthemum* flower earlier than plants of 'Graniti'.
2. Plants of the new *Chrysanthemum* are flexible and not brittle like plants of 'Graniti'.
3. Plants of the new *Chrysanthemum* have smaller inflorescences than plants of 'Graniti'.

Plants of the new *Chrysanthemum* can also be compared to plants of *Chrysanthemum*×*morifolium* 'Gedi Two Omol', disclosed in U.S. Plant Pat. No. 14,382. In side-by-side comparisons conducted in Oostnieuwkerke, Belgium, plants of the new *Chrysanthemum* differed from plants of 'Gedi Two Omol' in the following characteristics:

1. Plants of the new *Chrysanthemum* were more rounded than and not as upright as plants of 'Gedi Two Omol'.
2. Plants of the new *Chrysanthemum* were flexible and not brittle like plants of 'Gedi Two Omol'.
3. Plants of the new *Chrysanthemum* had smaller inflorescences than plants of 'Gedi Two Omol'.

BRIEF DESCRIPTION OF THE PHOTOGRAPH

The accompanying photograph illustrates 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 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 'Nerola Orange' 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 and under conditions and practices which approximate those generally used in commercial *Chrysanthemum* 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 20 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* 'Nerola Orange'.

Parentage:

Female, or seed, parent.—*Chrysanthemum*×*morifolium* 'Conaco', not patented.

Male, or pollen, parent.—*Chrysanthemum*×*morifolium* 'Graniti', 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; medium density.

Plant description:

Appearance.—Perennial decorative-type *Chrysanthemum*; stems upright and outwardly spreading giving a uniformly rounded appearance to the plant; very freely branching habit, about 20 to 25 primary lateral branches develop, each primary lateral branch with multiple secondary branches; pinching enhances lateral branch development; dense and full plant habit; moderately vigorous growth habit; plants flexible, not brittle.

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 3 cm. Strength: Strong. Texture: Pubescent; longitudinally ridged. Color: Close to 136A.

Leaves.—Arrangement: Alternate, simple. Length: About 4.5 cm to 6 cm. Width: About 2.5 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. Color: Developing and fully expanded leaves, upper surface: Close to 136A; venation, close to 148C. Developing and fully expanded leaves, lower surface: Close to 137C; venation, close to 147B to 147C. Petiole: Length: About 1

cm. Diameter: About 2 mm. Texture, upper and lower surfaces: Slightly pubescent and rough. Color, upper surface: Close to 136A. Color, lower surface: Close to 137C.

Inflorescence description:

Appearance.—Decorative inflorescence form; inflorescences borne on terminals above foliar plane; disc and ray florets arranged acropetally on a capitulum.

Fragrance.—Faintly fragrant, pungent.

Flowering response.—Under natural season conditions, plants flower in mid-September in Belgium; flowering response time, about five weeks.

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

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

Inflorescence bud.—Height: About 6 mm. Diameter: About 8 mm. Shape: Globular. Color: Close to 137A.

Inflorescence size.—Diameter: About 5 cm. Depth (height): About 3 cm. Disc diameter: About 3 mm. Receptacle diameter: About 3 mm. Receptacle height: About 2.5 mm to 3 mm. Receptacle color: Close to 144B.

Ray florets.—Length: About 3.5 cm to 5 cm. Width: About 7 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 150 to 200 arranged in about ten whorls. Color: When opening, upper surface: Close to 171A. When opening, lower surface: Close to 169C. Fully opened, upper surface: Close to 171B; color becoming closer to 22A with development. Fully opened, lower surface: Close to 22A; color does not change 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 50 massed at the center of the inflorescence. Color, immature: Close to 145A. Color, mature: Close to 12A.

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 6 cm. Length, fourth peduncle: About 6 cm. Length, seventh peduncle: About 6 cm. Diameter: About 2 mm. Angle: About 30° from vertical. Strength: Moderately strong. Texture: Slightly pubescent. Color: Close to 136A.

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.

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:

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

