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VandenBerg

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[54] **CHRYSANTHEMUM PLANT NAMED 'SIERRA'**

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[58] **Field of Search** Plt./77

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[57] **ABSTRACT**

A distinct cultivar of Chrysanthemum plant named 'Sierra', characterized by its upright, uniform and rounded plant habit; large decorative disbud-type inflorescences that are 9.8 to 10.8 cm in diameter; pure white-colored ray florets; and excellent postproduction longevity with inflorescences maintaining good substance and color for about four weeks in an interior environment.

3 Drawing Sheets

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The present invention relates to a new and distinct cultivar of Chrysanthemum plant, botanically known as *Dendranthema grandiflora* and referred to by the cultivar name 'Sierra'.

The new cultivar is a product of a planned breeding program conducted by the inventor in Salinas, Calif. The objective of the breeding program is to create new Chrysanthemum cultivars having inflorescences with desirable inflorescence forms and floret colors and good post-production longevity.

The new cultivar originated from a cross made by the inventor in November, 1989, of two unnamed proprietary seedling selections.

The cultivar 'Sierra' was discovered and selected by the inventor as a flowering plant within the progeny of the stated cross in a controlled environment in Salinas, Calif., in December, 1990. The selection of this plant was based on its desirable inflorescence form and ray floret color and good post-production longevity.

Asexual reproduction of the new cultivar by terminal cuttings taken in a controlled environment in Salinas, Calif., has shown that the unique features of this new Chrysanthemum are stable and reproduced true to type in successive generations.

The cultivar 'Sierra' has 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 'Sierra'. These characteristics in combination distinguish 'Sierra' as a new and distinct cultivar:

1. Upright, uniform and rounded plant habit.

2. Large decorative disbud-type inflorescences that are 9.8 to 10.8 cm in diameter.

3. Pure white-colored ray florets.

4. Excellent postproduction longevity with inflorescences maintaining good substance and color for about four weeks in an interior environment.

The new Chrysanthemum is similar in ray floret color to the Chrysanthemum cultivar 'Boaldi' (disclosed in U.S. Plant Pat. No. 6,613). However in side-by-side comparisons in Salinas, Calif., under commercial practice, plants of the new Chrysanthemum differed from plants of the cultivar 'Boaldi' in the following characteristics:

1. Plants of the new Chrysanthemum are shorter than plants of the cultivar 'Boaldi.'

2. Leaves of plants of the new Chrysanthemum have

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divergent sinuses between lateral lobes whereas plants of the cultivar 'Boaldi' have parallel sinuses between lateral leaf lobes.

3. Plants of the new Chrysanthemum flower earlier than plants of the cultivar 'Boaldi.'

4. Ray florets of plants of the new Chrysanthemum have a longer corolla tube than ray florets of plants of the cultivar 'Boaldi.'

5. Under high production temperatures, inflorescences of plants of the new Chrysanthemum develop noninvolucral bracts whereas plants of the cultivar 'Boaldi' do not develop noninvolucral bracts under high production temperatures.

The accompanying photographs illustrate the overall appearance of the new cultivar.

The first sheet is a colored photograph comprising a side perspective view of a typical flowering plant of 'Sierra'. This photograph shows the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Floret and foliage colors in the photograph may differ from the actual colors due to light reflectance.

The second sheet is a black and white photograph comprising a top perspective view of inflorescences of the cultivar 'Sierra' showing left to right: adaxial, abaxial and lateral surfaces.

The third sheet is a black and white photograph comprising a top perspective view of the abaxial (top of photo) and adaxial (bottom of photo) surfaces of leaves of the cultivar 'Sierra' at three different stages of development, left to right: mature, intermediate and immature, showing the differences in size and lobation development.

In the following description, color references are made to The Royal Horticultural Society Colour Chart except where general terms of ordinary dictionary significance are used. The following observations and measurements describe plants grown in Leaminton, Ontario, Canada, under greenhouse conditions which approximate those generally used in commercial potted chrysanthemum production. Four unrooted cuttings were directly stuck in a 15-cm container. Measurements and numerical values represent averages for a minimum of four typical flowering containers.

Botanical Classification: *Dendranthema grandiflora* cultivar 'Sierra'.

Commercial classification: Decorative disbud-type pot Chrysanthemum.

Parentage:

Male or pollen parent.—Unnamed proprietary seedling selection.

Female or see parent.—Unnamed proprietary seedling selection.

Propagation:

Type.—Terminal tip cuttings.

Time to rooting.—Seven to ten days with soil temperatures of 21C.

Rooting habit.—Fine, fibrous and well-branched.

Plant description:

Appearance.—Perennial herbaceous decorative disbud-type pot Chrysanthemum. Upright, uniform rounded habit and moderate branching. Four to six lateral branches develop after removal of terminal apex (pinching).

Plant height.—20 to 25 cm.

Foliage description.—Leaf arrangement: Alternate. Leaf size, fully expanded: Length: About 9 cm. Width: About 5 cm. Leaf apex: Acuminate. Leaf base: Attenuate. Leaf margin: Palmately lobed, sinuses between lateral lobes divergent. Leaf texture: Abaxial and adaxial surfaces slightly pubescent. Veins prominent on abaxial surface. Color: Young foliage adaxial surface: 147A. Young foliage abaxial surface: 147B. Mature foliage adaxial surface: 147A. Mature foliage abaxial surface: 147B. Venation abaxial surface: 147B. Venation adaxial surface: 147B.

Inflorescence description:

Appearance.—Double decorative-type inflorescence form with pure white ray florets. Inflorescences borne on terminals above foliage, arising from leaf axils. Disk and ray florets arranged acropetally on a capitulum. Under high production temperatures, noninvolucral bracts may develop on the capitulum.

Flowering response.—Under natural conditions, plants 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). Plants exposed to 1.5 to 2 weeks of long day/short night conditions after planting followed by photoinductive short day/long night conditions flower about 48 to 54 days later.

Postproduction longevity.—In an interior environment, inflorescences of cut flowering stems will maintain good color and substance for about four weeks.

Quantity of inflorescences.—As a disbud-type, all flowering stems are removed but one to maximize inflorescence size.

Inflorescence size.—Diameter: 9.8 to 10.8 cm. Depth (height): About 1.5 cm. Diameter of disc: About 4 mm.

Ray florets.—Shape: Narrowly spatulate, straight, corolla fused approximately ⅓ of the length of the ray florets. Size: Length: About 4.5 cm. Width: About 1.5 cm. Apex: Acute. Margin: Entire. Texture: Ribbed lengthwise, smooth, glabrous. Aspect: Flat. Number of ray florets per inflorescence: About 310. Color: Adaxial surface: 155B to 155D. Abaxial surface: 155D.

Disc florets.—Inconspicuous. Shape: Tubular. Size: Length: About 4 mm. Width: About 1 mm. Number of disc florets per inflorescence: About 16. Color: Immature: 154A. Mature: Apex: 12A. Base: White, 155D.

Peduncle.—Aspect: Strong, erect. Texture: Pubescent. Color: 143A.

Reproductive organs.—Androecium: Present on disc florets only. Anther color: 12A. Pollen: Little, 12A in color. Gynoecium: Present on both ray and disc florets.

Disease resistance: No known Chrysanthemum diseases observed to date on plants grown under commercial greenhouse conditions.

Seed Production: Seed production has not been observed.

It is claimed:

1. A new and distinct cultivar of Chrysanthemum plant named 'Sierra', as illustrated and described.

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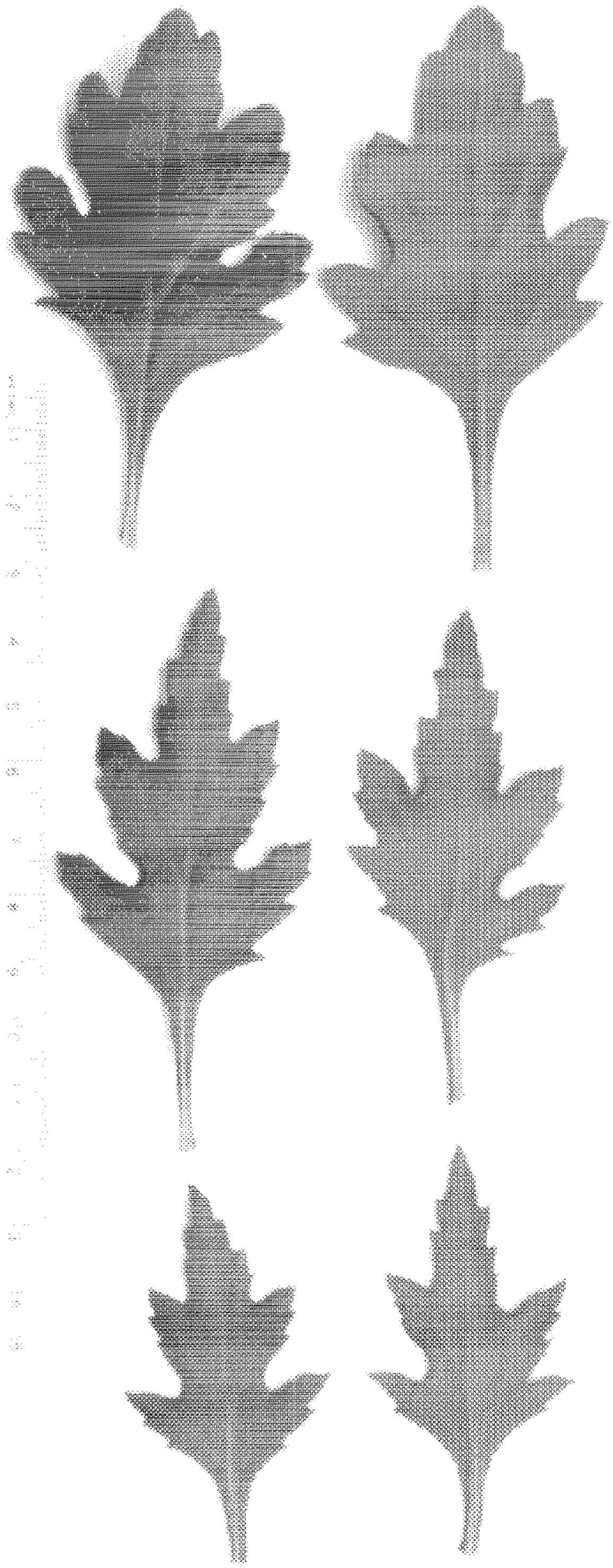
VARIETY SIERRA
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