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[54] **CHRYSANTHEMUM PLANT NAMED 'DARK PILAR'**

[75] Inventor: **Cornelis P. VandenBerg**, Salinas, Calif.

[73] Assignee: **Yoder Brothers, Inc.**, Barberton, Ohio

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[51] **Int. Cl.**⁶ **A01H 5/00**

[52] **U.S. Cl.** **Plt./74.1**

[58] **Field of Search** **Plt./74.1, 76**

[56] **References Cited**

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Primary Examiner—Howard J. Locker

Attorney, Agent, or Firm—C. A. Whealy

[57] **ABSTRACT**

A distinct cultivar of Chrysanthemum plant named 'Dark Pilar', characterized by its anemone spray-type inflorescences that are about 7.75 cm in diameter; attractive purple ray florets with yellow-tipped disc florets; numerous inflorescences per flowering stem; numerous ray and disc florets per inflorescence; and excellent postproduction longevity with flowering stems maintaining good substance and color for about three to four weeks in an interior environment after one week of cool storage.

3 Drawing Sheets

1

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 'Dark Pilar.'

The new cultivar is a product of a mutation induction breeding program conducted by the inventor in Fort Myers, Fla., and Salinas, Calif. The objective of the program is to create new Chrysanthemum cultivars having inflorescences with desirable form and floret colors, good substance, and excellent post-production longevity.

The new cultivar originated by exposing unrooted cuttings of the Chrysanthemum cultivar Pilar (disclosed in U.S. Plant Pat. No. 10,331) to a X-ray radiation level of 1,500 rads on Mar. 16, 1995 in Fort Myers, Fla. Following the radiation treatment, the cuttings were rooted and terminal apices were removed (pinched) three times to promote lateral branch development. After lateral branches from the third pinch reached sufficient size, terminal cuttings were harvested, planted and flowered in a controlled environment in Salinas, Calif. The cultivar 'Dark Pilar' was discovered and selected by the inventor as a single flowering plant within this population on Sep. 20, 1995. The selection of this plant was based on its desirable inflorescence form and floret colors, good substance, and excellent post-production longevity. In side-by-side comparisons conducted in Salinas, Calif., plants of the new Chrysanthemum differ from plants of the parent cultivar, 'Pilar', in ray floret color as plants of 'Pilar' have lighter purple-colored ray florets. Additionally plants of the new Chrysanthemum have stems that are about 2.5 cm longer than plants of 'Pilar'. In side-by-side comparisons conducted in Salinas, Calif., plants of the new Chrysanthemum have also been compared to other similar cultivars such as 'Bronze Pilar' (disclosed in U.S. Plant patent application Ser. No. 08/867,700). Plants of 'Bronze Pilar' also differ from plants of the new Chrysanthemum in ray floret color as plants of 'Bronze Pilar' have bronze-

2

colored ray florets. Additionally plants of the new Chrysanthemum have stems that are about 7.5 cm longer than plants of 'Bronze Pilar'.

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 'Dark Pilar' 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 'Dark Pilar'. These characteristics in combination distinguish 'Dark Pilar' as a new and distinct cultivar:

1. Anemone spray-type inflorescences that are about 7.75 cm in diameter.
2. Attractive purple florets with yellow-tipped disc florets.
3. Numerous inflorescences per stem.
4. Numerous ray and disc florets per inflorescence.
5. Excellent postproduction longevity with flowering stems maintaining good substance and color for about three to four weeks in an interior environment after one week of cool storage.

The accompanying colored photographs illustrate the overall appearance of the new cultivar, showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type.

The first photograph comprises a side perspective view of a typical flowering stem of 'Dark Pilar' grown as a single-stem spray cut Chrysanthemum.

The second photograph comprises a side perspective view of typical inflorescences of the cultivar 'Dark Pilar.'

The third photograph comprises a top perspective view of

upper (top) and lower (bottom) surfaces of typical inflorescences of the cultivars 'Pilar' (left) and 'Dark Pilar' (right) which shows the difference in ray floret colors.

The fourth photograph comprises a top perspective view of the upper surfaces of typical leaves of the cultivar Dark Pilar at two different stages of development.

Floret and foliage colors in the photographs may differ from the actual colors due to light reflectance.

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 Salinas, Calif., under commercial practice in a polyethylene-covered greenhouse. Day and night temperatures ranged from 18° to 24° C. and 16° to 17° C., respectively, and light levels ranged from 2,500 to 3,500 foot-candles. Rooted cuttings were planted Feb. 6, 1997 and cut flowers were harvested on Apr. 15, 1997. After planting rooted cuttings of the new cultivar, plants received three weeks of long day/short nights following by short day/long nights until flowering. Plants were grown as single-stem, that is, without pinching. Measurements and numerical values represent averages for six typical flowering stems.

Botanical classification: *Dendranthema grandiflora* cultivar 'Dark Pilar.'

Commercial classification: Anemone spray-type cut Chrysanthemum.

Parentage: Induced mutation of *Dendranthema grandiflora* cultivar 'Pilar' (U.S. Plant Pat. No. 10,331).

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 anemone spray-type cut flower. Stems upright, uniform habit and freely branching.

Flowering stem length.—About 107 cm.

Foliage description.—Leaf arrangement: Alternate. Leaf size, fully expanded: Length: About 12 cm. Width: About 9 cm. Leaf apex: Cuspidate. Leaf base: Attenuate. Leaf margin: Deeply lobed. Leaf texture: Upper and lower surfaces pubescent. Veins prominent on lower surface. Color: Young foliage upper surface: 147A. Young foliage lower surface: 147B. Mature foliage upper surface: 147A. Mature foliage lower surface: 147B. Venation upper surface: 147B. Venation lower surface: 147B. Petiole: Length: About 3 cm. Color: 147B.

Flowering description:

Appearance.—Anemone-type inflorescence form. Inflorescences borne on terminals, arising from leaf

axils. Disc and ray florets arranged acropetally on a receptacle.

Flowering response.—Under natural conditions, plant flowers 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 three weeks of long day/short night conditions after planting followed by photoinductive short day/long night conditions flower about 47 days later.

Postproduction longevity.—In an interior environment, flowering stems will maintain good color and substance for about three to four weeks in an interior environment after one week of cool storage.

Quantity of inflorescences.—About 12 inflorescences per flowering stem.

Inflorescence size.—Diameter: About 7.75 cm. Depth (height): About 1.7 cm. Diameter of disc: About 4 cm. Diameter of receptacle: About 6 mm.

Ray florets.—Shape: Elliptic to oblanceolate. Size: Length: About 3.8 cm. Width: About 1.2 cm. Apex: Rounded to finely dentate. Base: Attenuate. Margin: Entire. Texture: Satiny, smooth, glabrous. Aspect: Mostly flat to slightly cupped. Number of ray florets per inflorescence: About 54. Color: When opening: Upper surface: 81B. Lower surface: 81C. Mature: Upper surface: 81B to 81C. Lower surface: 81D.

Disc florets.—Shape: Tubular during early development becoming oblanceolate to spatulate with further development. Apex: Dentate. Size (largest): Length: About 2.4 cm. Width: Apex: About 6 mm. Base: About 1 mm. Number of disc florets per inflorescence: About 195. Color: Immature: Apex: 154A to white. Base: White. Mature: Tube: Apex: 5A. Mid-section: 81B. Base: 154A. Throat: Apex: 81C. Base: White.

Peduncle.—Aspect: Strong and angled about 55° to the stem. Length: First peduncle: About 8 cm. Fourth peduncle: About 11 cm. Seventh peduncle: About 13.5 cm. Texture: Fine pubescence. Color: 147B.

Reproductive organs.—Androecium: Present on disc florets only. Anther color: 9A. Pollen: Moderate, 9A 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 'Dark Pilar', as illustrated and described.

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