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Vandenberg

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- (54) **CHRYSANTHEMUM PLANT NAMED ‘CORAL PILAR’**
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- (58) Field of Search Plt./286, 297, 298

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,616,099 A * 10/1986 Sparkes 47/58

OTHER PUBLICATIONS

Shukla, et al., 1993, “Mutation Studies on early and late varieties of garden chrysanthemums” J. Nuclear Agric Biol., 22 (3–4): 138–142.*

Broertjes, et al., 1980, “A mutant of a mutant of a . . . Irradiation of progressive radiation induced mutants in a mutation breeding programme with *Chrysanthemum morifolium*”, Euphytica 29:525–530.*

Gosling, ed., 1979, “The Chrysanthemum Manual—6th edition”, The National Chrysanthemum Society, London, Essex Telegraph Press, Ltd., pp. 329–336.*

Broertjes, et al., 1978, “Application of Mutation Breeding Methods in the Improvement of Vegetatively Propagated Crops,” Elsevier Sci. Pub. Co., New York, pp. 162–175.*

Searle, et al., 1968, “Chrysanthemums the Year Round”, Blanford Press, London, pp. 27–29, 320–327.*

Chan, 1966, “Chrysanthemum and rose mutations induced by x-rays”, Am. Soc. Hort. Sci. Proc., pp. 613–620.*

Broertjes, 1966, “Mutation breeding of Chrysanthemums”, Euphytica, 15:156–162.*

Dowrick, et al., 1966, “The induction of mutations in chrysanthemums using x- and gamma radiation”, Euphytica, 15:204–210.*

* cited by examiner

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(57) **ABSTRACT**

A distinct cultivar of Chrysanthemum plant named ‘Coral Pilar’, characterized by its anemone-type inflorescences that are about 6.7 cm in diameter and with large anemone centers; attractive dark coral pink ray florets and yellow-tipped disc florets; freely and early flowering habit; dark green foliage; thick and strong stems; and good postproduction longevity with inflorescences maintaining good substance and color for about three or four weeks in an interior environment.

2 Drawing Sheets

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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 ‘Coral Pilar’.

The new Chrysanthemum is a product of a mutation induction breeding program conducted by the Inventor in Alva, Fla. The objective of the program is to create new Chrysanthemum cultivars with describe inflorescence form and floret colors, good substance, and good postproduction longevity.

The new Chrysanthemum is a naturally-occurring whole plant mutation of a proprietary induced mutation that originated by exposing unrooted cuttings of the Chrysanthemum cultivar Dark Pilar, disclosed in U.S. Plant. Pat. No. 10,753, to X-ray radiation. The new Chrysanthemum was discovered and selected by the Inventor as a single flowering plant within a population of plants of the irradiated selection in November, 1997, in Alva, Fla. The selection of this plant was based on its desirable inflorescence form and floret colors and good postproduction longevity.

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

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SUMMARY OF THE INVENTION

The cultivar Coral 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 ‘Coral Pilar’. These characteristics in combination distinguish ‘Coral Pilar’ as a new and distinct cultivar:

1. Anemone-type inflorescences that are about 6.7 cm in diameter and with large anemone centers.
2. Attractive dark coral pink ray florets and yellow-tipped disc florets.
3. Very freely flowering habit with numerous inflorescences per stem.
4. Early flowering, response time is about 51 days.
5. Dark green foliage.
6. Thick and strong stems.
7. Good postproduction longevity with inflorescences maintaining good substance and color for about three or four weeks in an interior environment.

Plants of the new Chrysanthemum differ from plants of the cultivar Dark Pilar primarily in ray floret color as plants of the cultivar Dark Pilar have purple-colored ray florets.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the overall appearance of the new Chrysanthemum, 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.

The photograph on the first sheet comprises a side perspective view of a typical flowering stem of 'Coral Pilar' grown as a spray-type cut Chrysanthemum.

The photograph on the second sheet comprises a close-up view of typical inflorescences of 'Coral Pilar'.

DETAILED BOTANICAL DESCRIPTION

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 conditions which approximate commercial practice in a double-layer polyethylene-covered greenhouse. Two-week old rooted cuttings were planted on Feb. 10, 2000 and received 18 long day/short nights followed by short day/long nights until flowering. Plants were grown as single-stem cut chrysanthemums. During the production time, the following environmental conditions were measured: day temperatures, 18 to 27° C.; night temperatures, 16 to 18° C.; and light levels 2,000 to 4,000 foot-candles. Measurements and numerical values represent averages for six to ten typical flowering stems and were taken during the week of Apr. 30, 2000.

Botanical classification: *Chrysanthemum*×*morifolium* cultivar Coral Pilar.

Commercial classification: Anemone spray-type cut Chrysanthemum.

Parentage: Naturally-occurring whole plant mutation of a proprietary *Chrysanthemum*×*morifolium* induced mutation, not patented.

Propagation:

Type.—Terminal tip cuttings.

Time to rooting.—About seven to ten days with soil temperatures of 21° C.

Root description.—Fine, fibrous and well-branched.

Plant description:

Appearance.—Herbaceous anemone spray-type cut flower.

Flowering stem description.—Aspect: Erect. Strength: Strong. Length: About 88.9 cm. Diameter: About 6.5 mm. Internode length: About 3.3 cm. Texture: Pubescent; fine, white. Color: 146A to 146B.

Foliage description.—Arrangement: Alternate. Length: About 11.9 cm. Width: About 7.5 cm. Apex: Cuspidate to mucronate. Base: Mostly truncate. Margin: Palmately lobed; sinuses divergent to parallel. Texture: Upper and lower surfaces pubescent. Veins prominent on lower surface. Color: Young foliage upper surface: Much darker than 147A. Young foliage lower surface: Darker than 147B. Mature foliage upper surface: Darker than 147A; venation, close to 147B. Mature foliage lower surface: Darker than 147B; venation, close to 146B to 147C. Petiole: Length: About 3.1 cm. Diameter: About 3 mm. Color: Close to 147B.

Flowering description:

Appearance.—Anemone spray-type inflorescence form with elongated oblong-shaped ray florets. Inflores-

cences borne on terminals, arising from leaf axils. Disc and ray florets arranged acropetally on a capitulum.

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 51 days later.

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

Quantity of inflorescences.—Freely flowering with about 14 inflorescences per flowering stem.

Inflorescence size.—Diameter: About 6.7 cm. Depth (height): About 1.7 cm. Diameter of disc: About 3.8 cm. Diameter of receptacle: About 7.5 mm.

Ray florets.—Shape: Elongated oblong. Length: About 3.7 cm. Width: About 1.1 cm. Apex: Mostly acute to emarginate. Base: Attenuate. Margin: Entire. Texture: Satiny, smooth, glabrous; longitudinally ridged. Aspect: Mostly flat. Aspect: Initially upright; when mature, about 90° from vertical. Number of ray florets per inflorescence: About 73 arranged in about three rows. Color: When opening, upper surface: Ground color, 11A to 11B overlain with 58A or 60A to 60B; overall tonality, close to dulled 63A to 63B. When opening, lower surface: Ground color 11B faintly underlain with 59A. Mature, upper surface: Ground color 11B overlain with 58A or 60A to 60B; overall tonality, close to 63A to 63B and fading to close to 63C with subsequent development. Mature, lower surface: Ground color 11B faintly underlain with 59A.

Disc florets.—Shape: Enlarged tubular; flared. Length: About 1.9 cm. Width: Apex: About 5 mm. Base: About 1 mm. Number of disc florets per inflorescence: Numerous, typically about 153. Color: Immature: 144A to 144B to 145A. Mature, throat: Apex: Close to 9A. Mid-section: Close to 11A faintly overlain with 59B. Base: Close to 154A. Mature, tube: 58A or 60A to 60B.

Peduncle.—Aspect: Angled about 45° from vertical. Strength: Strong, flexible. Length: First peduncle: About 7.5 cm. Fourth peduncle: About 11.8 cm. Seventh peduncle: About 15.2 cm. Diameter: About 3 mm. Texture: Very fine pubescence. Color: 146A to 146B.

Reproductive organs.—Androecium: Present on disc florets only. Anther color: 9A. Amount of pollen: None observed. Gynoecium: Present on both ray and disc florets.

Seed.—Seed production has not been observed.

Disease resistance: Resistance to pathogens common to Chrysanthemums has not been observed on plants grown under commercial conditions.

Temperature tolerance: Plants of the new Chrysanthemum have demonstrated good tolerance to night temperatures as low as 5° C. and day temperatures lower than 40° C.

It is claimed:

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

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