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Vandenberg

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(54) **CHRYSANTHEMUM PLANT NAMED**
‘YOCOOL’

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

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patent is extended or adjusted under 35
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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
‘Yocool’, characterized by its upright cut *Chrysanthemum*
that is usually grown as a natural spray; dark green-colored
foliage; freely flowering habit; uniform inflorescence form
and development; large daisy-type inflorescences; white-
colored ray florets; response time about ten weeks; strong
peduncles; and good postproduction longevity.

2 Drawing Sheets

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Botanical designation: *Chrysanthemum*×*morifolium*.
Cultivar denomination: ‘Yocool’.

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 ‘Yocool’.

The new *Chrysanthemum* is a product of a planned
breeding program conducted by the Inventor in Salinas,
Calif. and Alva, Fla. The objective of the breeding program
is to create new cut *Chrysanthemum* cultivars having inflo-
rescences with desirable colors and good inflorescence form
and substance.

The new *Chrysanthemum* originated from a cross-
pollination made by the Inventor in November, 2000, in
Salinas, Calif., of a proprietary *Chrysanthemum*×*morifolium*
seedling selection identified as code number T2737, not
patented, as the female, or seed, parent with a proprietary
Chrysanthemum×*morifolium* seedling selection identified as
T2870, not patented, as the male, or pollen, parent.

The cultivar Yocool was discovered and selected by the
Inventor as a flowering plant within the progeny of the stated
cross-pollination in a controlled environment in Alva, Fla.,
in March, 2002. The selection of this plant was based on its
desirable inflorescence color and good inflorescence form
and substance.

Asexual reproduction of the new *Chrysanthemum* by
terminal cuttings in a controlled environment in Alva, Fla.
since May, 2002, has shown that the unique features of this
new *Chrysanthemum* are stable and reproduced true to type
in successive generations.

SUMMARY OF THE INVENTION

Plants of the cultivar Yocool have not been observed
under all possible environmental conditions. The phenotype
may vary somewhat with variations in environment such as

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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 ‘Yocool’.
These characteristics in combination distinguish ‘Yocool’ as
a new and distinct cultivar:

1. Upright cut *Chrysanthemum* that is usually grown as a
natural spray.
2. Dark green-colored foliage.
3. Freely flowering habit, about eleven inflorescences per
flowering stem.
4. Uniform inflorescence form and development.
5. Large daisy-type inflorescences that are about 9 cm in
diameter.
6. Attractive white-colored ray florets.
7. Response time about ten weeks.
8. Strong peduncles.
9. Good postproduction longevity with inflorescences and
foliage maintaining good substance and color for about
17 days in an interior environment.

Compared to plants of the female parent selection, plants
of the new *Chrysanthemum* have slightly smaller
inflorescences, have more inflorescences per flowering stem
and flower about three to four days earlier.

Compared to plants of the male parent selection, plants of
the new *Chrysanthemum* have more inflorescences per flow-
ering stem and flower about one week earlier. In addition,
plants of the new *Chrysanthemum* and the male parent
selection differ in ray flower coloration as plants of the male
parent selection have yellow-colored ray florets.

Plants of the new *Chrysanthemum* can be compared to
plants of the *Chrysanthemum*×*morifolium* cultivar Vero,
disclosed in U.S. Plant Pat. No. 6,399. In side-by-side
comparisons conducted in Alva, Fla., plants of the new
Chrysanthemum differed from plants of the cultivar Vero in
the following characteristics:

1. Plants of the new *Chrysanthemum* had more inflorescences per flowering stem than plants of the cultivar Vero.
2. Plants of the new *Chrysanthemum* flowered about ten days earlier than plants of the cultivar Vero.
3. Plants of the new *Chrysanthemum* flowered more uniformly than plants of the cultivar Vero.
4. Plants of the new *Chrysanthemum* had shorter peduncles than plants of the cultivar Vero.

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 'Yocool' grown as a natural spray.

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

DETAILED BOTANICAL DESCRIPTION

In the following description, color references are made to The Royal Horticultural Society Colour Chart, 1995 Edition, except where general terms of ordinary dictionary significance are used. The aforementioned photographs and following observations and measurements describe plants grown in Salinas, Calif., under conditions which approximate commercial practice in a polyethylene-covered greenhouse. Two-week old rooted cuttings were planted on Nov. 3, 2004 and received four weeks of long day/short nights followed by short day/long nights until flowering. Plants were grown as single-stem natural spray cut *Chrysanthemums*. During the production time, the following environmental conditions were measured: day temperatures, 24 to 27° C.; night temperatures, 10 to 16° 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 about ten weeks after the start of short days.

Botanical classification: *Chrysanthemum*×*morifolium* cultivar Yocool.

Commercial classification: Daisy-type cut *Chrysanthemum*.
Parentage:

Female or seed parent.—Proprietary *Chrysanthemum*×*morifolium* seedling selection identified as code number T2737, not patented.

Male or pollen parent.—Proprietary *Chrysanthemum*×*morifolium* seedling selection identified as code number T2870, not patented.

Propagation:

Type.—Terminal tip cuttings.

Time to rooting.—About 10 to 14 days with soil temperatures of 18 to 21° C.

Root description.—Fine, fibrous; white in color.

Rooting habit.—Freely branching.

Plant description:

Appearance.—Herbaceous daisy-type cut flower that is typically grown as a natural spray.

Flowering stem description.—Aspect: Erect. Length: About 109 cm. Spray diameter: About 17 cm. Stem diameter: About 8 mm. Internode length: About 3.3 cm. Texture: Pubescent; longitudinally ridged. Color: 144A to 144B.

Foliage description.—Arrangement: Alternate. Length: About 6.2 cm. Width: About 4.1 cm. Apex: Acuminate. Base: Truncate with attenuate tendencies. Margin: Palmately lobed; sinuses mostly divergent. Texture: Upper and lower surfaces, pubescent and leathery; veins prominent on lower surface. Color: Developing and fully expanded foliage, upper surface: Close to 147A. Developing and fully expanded foliage, lower surface: Close to 147B. Venation, upper surface: Close to 147A. Venation, lower surface: Close to 147B. Petiole: Length: About 2.2 cm. Diameter: About 4 mm. Texture, upper and lower surfaces: Pubescent. Color, upper and lower surfaces: 146A to 146B.

Flowering description:

Appearance.—Daisy-type inflorescence form with elongated oblong-shaped ray florets. Inflorescences borne on terminals, arising from leaf axils. Disc and ray florets develop acropetally on a capitulum.

Flowering response.—Under natural conditions, plant 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 three to four weeks of long day/short night conditions after planting followed by photoinductive short day/long night conditions flower about ten weeks later when grown as a natural spray. Inflorescences uniform in form and development.

Postproduction longevity.—In an interior environment, inflorescences and foliage will maintain good color and substance for about 17 days in an interior environment.

Quantity of inflorescences.—Freely flowering habit, about eleven inflorescences per stem develop.

Fragrance.—Faint; sweet.

Inflorescence size.—Diameter: Large, about 9 cm. Depth (height): About 1.3 cm. Disc diameter: About 1.9 cm. Receptacle diameter: About 9 mm. Receptacle height: About 7.5 mm.

Inflorescence buds.—Height: About 7.5 mm. Diameter: About 9 mm. Shape: Oblate. Color: Close to 146A.

Ray florets.—Shape: Elongated oblong. Length: About 4.5 cm. Width: About 1.1 cm. Corolla tube length: About 5 mm. Apex: Acute to emarginate. Base: Fused. Texture: Smooth, glabrous; satiny; longitudinally ridged. Aspect: Initially upright; when mature, mostly straight and perpendicular to the peduncle. Number of ray florets per inflorescence: About 38 in two to three whorls. Color: When opening, upper and lower surfaces: Close to 155D. Fully opened, upper and lower surfaces: Close to 155D.

Disc florets.—Shape: Tubular, elongated. Length: About 7 mm. Width, apex: About 3 mm. Width, base: About 2 mm. Number of disc florets per inflorescence: About 150. Color: Immature: Close to 154A. Mature: Apex: Close to 9A. Mid-section: Close to 144C. Base: Close to 155D.

Phyllaries.—Quantity per inflorescence: About 32 in about three whorls. Length: About 1.1 cm. Width: About 3.5 mm. Shape: Lanceolate. Apex: Acute.

Base: Truncate. Margin: Entire. Texture, upper surface: Smooth, waxy. Texture, lower surface: Pubescent. Color, upper surface: Close to 146A. Color, lower surface: Close to 147A to 146A.

Peduncles.—Length: First peduncle: About 14.5 cm. Fourth peduncle: About 17 cm. Seventh peduncle: About 22.5 cm. Diameter: About 3 mm. Angle: About 30° from vertical. Strength: Strong. Texture: Pubescent. Color: Close to 144A to 146A.

Reproductive organs.—Androecium: Present on disc florets only. Anther length: Less than 1 mm. Anther color: Close to 15A. Amount of pollen: None observed. Gynoecium: Present on both ray and disc florets. Style length: About 7 mm. Style color: Close to 154A. Stigma color: Close to 9A.

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

Disease/pest resistance: Resistance to pathogens and pests 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 low temperatures of 7° C. and high temperatures high temperatures of 38° C. It is claimed:

1. A new and distinct cultivar of *Chrysanthemum* plant named ‘Yocool’, as illustrated and described.

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