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United States Patent [19]**VandenBerg**[11] **Patent Number: Plant 10,462**[45] **Date of Patent: Jun. 23, 1998**[54] **CHRYSANTHEMUM PLANT NAMED
'TIJUANA SUNSET'**[75] Inventor: **Cornelis P. VandenBerg**, Salinas, Calif.[73] Assignee: **Yoder Brothers Inc.**, Barberton, Ohio[21] Appl. No.: **771,059**[22] Filed: **Dec. 20, 1996**[51] **Int. Cl.⁶** **A01H 5/00**[52] **U.S. Cl.** **Plt./74.1**[58] **Field of Search** **Plt./74.1, 82.3**[56] **References Cited**

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Attorney, Agent, or Firm—C. A. Whealy[57] **ABSTRACT**

A distinct cultivar of Chrysanthemum plant named 'Tijuana Sunset', characterized by its upright and mounded plant habit; medium-size daisy spray-type inflorescences that are 7.9 to 8.3 cm in diameter; attractive red and yellow bi-colored ray florets and bright yellow disc florets; and very good postproduction longevity with inflorescences maintaining good substance and color for about three weeks in an interior environment.

1 Drawing Sheet**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 'Tijuana Sunset'.

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 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 by exposing 75 unrooted cuttings of the Chrysanthemum cultivar 'Tijuana' (disclosed in U.S. Plant Pat. No. 9,083) to a radiation level of 1,500 rads in March, 1993, 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, 504 terminal cuttings were harvested, planted and flowered in a controlled environment in Salinas, Calif. The cultivar Tijuana Sunset was discovered and selected by the inventor as a single flowering plant within this population in January, 1994. The selection of this plant was based on its desirable inflorescence form and floret colors 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 'Tijuana Sunset' 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 'Tijuana

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Sunset'. These characteristics in combination distinguish 'Tijuana Sunset' as a new and distinct cultivar:

1. Upright and mounded plant habit.
2. Medium-size daisy spray-type inflorescences that are 7.9 to 8.3 cm in diameter.
3. Attractive red and yellow bi-colored ray florets and bright yellow disc florets.
4. Very good postproduction longevity with inflorescences maintaining good substance and color for about three weeks in an interior environment.

The new Chrysanthemum differs from the its parent, the Chrysanthemum cultivar 'Tijuana', in ray floret color as plants of the cultivar 'Tijuana' have white and purple bi-colored ray florets. In all other plant and inflorescence characteristics, plants of the new Chrysanthemum and the cultivar Tijuana are similar.

The accompanying colored photograph illustrates the overall appearance of the new cultivar, showing the colors as true as it is reasonably possible to obtain in colored reproduction of this type. The photograph comprises a side perspective view of a typical flowering plant of 'Tijuana Sunset', Floret and foliage colors in the photograph 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 observation 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 'Tijuana Sunset'.

Commercial classification: Daisy spray-type pot Chrysanthemum.

Parentage: Induced mutation of *Dendranthema grandiflora* cultivar 'Tijuana' (U.S. Plant Pat. No. 9,083).

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 daisy spray-type pot Chrysanthemum. Upright, mounded habit and freely branching. Four to five lateral branches develop after removal of terminal apex (pinching).

Plant height.—25 to 30 cm.

Foliage description.—Leaf arrangement: Alternate. Leaf size, fully expanded: Length: About 7.75 cm. Width: About 5 cm. Leaf apex: Cuspidate. Leaf base: Attenuate. Leaf margin: Palmately lobed, lobes converging. 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 adaxial surface: 147B. Venation abaxial surface: 147B.

Inflorescence description:

Appearance.—Single daisy-type inflorescence form with red and yellow bi-colored ray florets. Inflorescences borne on terminals above foliage, arising from leaf axils. Disk and ray florets arranged acropetally on a 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 fol-

lowed by photoinductive short day/long night conditions flower about 51 to 54 days later.

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

Quantity of inflorescences.—Freely flowering about 5 inflorescences per flowering lateral stem, or 20 to 25 inflorescences per plant.

Inflorescence size.—Diameter: 7.9 to 8.3 cm. Depth (height): About 1 cm. Diameter of disc: About 1.9 cm.

Ray florets.—Shape: Narrowly oblong, straight, very short corolla tube. Size: Length: About 3.8 cm. Width: About 1.2 cm. Apex: Obtuse. Margin: Entire. Texture: Ribbed, smooth, glabrous. Aspect: Flat. Orientation: Positioned 10° to perpendicular to the peduncle. Number of ray florets per inflorescence: About 26. Color: Adaxial surface: Apex: 46A. Mid-section: 13C with streaks of 46A. Base: 13C. Abaxial surface: 13C overlaid with 42B.

Disc florets.—Shape: Tubular. Size: Length: About 6 mm. Width: About 1 mm. Number of disc florets per inflorescence: About 210. Color: Immature: 154A. Mature: Apex: 14B. Base: 154A.

Peduncle.—Aspect: Flexible, angled about 45° to the stem. Length: First peduncle: About 3.5 cm. Fourth peduncle: About 7.5 cm. Texture: Pubescent. Color: 143A.

Reproductive organs.—Androecium: Present on disc florets only. Anther color: 14B. Pollen: Moderate, 14B 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 'Tijuana Sunset', as illustrated and described.

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