



US00PP12013P2

(12) **United States Plant Patent**
VandenBerg

(10) **Patent No.:** **US PP12,013 P2**

(45) **Date of Patent:** **Jul. 24, 2001**

(54) **CHRYSANTHEMUM PLANT NAMED**
'DIRECT'

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(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** **09/383,529**

(22) **Filed:** **Aug. 26, 1999**

(51) **Int. Cl.⁷** **A01H 5/00**

(52) **U.S. Cl.** **Plt./290**

(58) **Field of Search** **Plt./287, 289, 290**

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(57) **ABSTRACT**

A distinct cultivar of Chrysanthemum plant named 'Direct',
characterized by its decorative-type inflorescences that are
about 5.75 cm in diameter; attractive rich bronze ray florets;
very floriferous with numerous inflorescences per stem;
early flowering, response time about 51 days; large dark
green leaves; strong stems; 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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BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar
of Chrysanthemum plant, botanically known as *Dendran-*
thema grandiflora and referred to by the cultivar name
Direct. 5

The new Chrysanthemum 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
cut Chrysanthemum cultivars having inflorescences with
desirable colors and good form and substance. 10

The new Chrysanthemum originated from a cross made
by the Inventor in December, 1993, in Salinas, Calif., of a
proprietary Chrysanthemum seedling selection identified as
0263, as the female, or seed, parent with a proprietary
Chrysanthemum seedling selection identified as 1706, as the
male, or pollen, parent. 15

The cultivar Direct was discovered and selected by the
Inventor as a flowering plant within the progeny of the stated
cross in a controlled environment in Alva, Fla., in March,
1995. The selection of this plant was based on its desirable
inflorescence color and good form and substance. 20

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 Chry-
santhemum are stable and reproduced true to type in suc-
cessive generations. 25

SUMMARY OF THE INVENTION

The cultivar Direct 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. 30

The following traits have been repeatedly observed and
are determined to be the unique characteristics of 'Direct'.
These characteristics in combination distinguish 'Direct' as
a new and distinct cultivar: 35

- 1. Decorative-type inflorescences that are about 5.75 cm
in diameter.
- 2. Attractive rich bronze ray florets.

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- 3. Numerous inflorescences per stem.

- 4. Early flowering.

- 5. Large dark green foliage.

- 6. Strong stems.

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

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. 15

The photograph on the first sheet comprises a side per-
spective view of a typical flowering stem of 'Direct' grown
as a spray-type cut Chrysanthemum.

The photograph on the second sheet comprises a more
close-up view of typical inflorescences of the cultivar Direct. 20

The photograph at the top of the third sheet comprises a
close-up view of upper and lower surfaces of typical inflo-
rescences of the cultivar Direct.

The photograph at the bottom of the third sheet comprises
a close-up view of typical young and mature leaves of the
cultivar Direct. Floret and foliage colors in the photographs
may differ from the actual colors due to light reflectance. 25

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. 11, 1999 and received 21 long
day/short nights followed by short day/long nights until
flowering. Plants were grown as single-stem cut chrysan-
themums. During the production time, the following envi-
ronmental conditions were measured: day temperatures
ranging from 18 to 27° C.; night temperatures ranging from 30

16 to 18° C.; and light level of about 2,000 to 4,000 foot-candles. Measurements and numerical values represent averages for six to ten typical flowering stems.

Botanical classification: *Dendranthema grandiflora* cultivar Direct.

Commercial classification: Decorative spray-type cut Chrysanthemum with oblong to elliptic-shaped ray florets.

Parentage:

Female or seed parent.—Proprietary *Dendranthema grandiflora* seedling selection, code number 0263.

Male or pollen parent.—Proprietary *Dendranthema grandiflora* seedling selection, code number 1706.

Propagation:

Type.—Terminal tip cuttings.

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

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

Plant description:

Appearance.—Perennial herbaceous decorative spray-type cut flower. Stems upright, uniform habit and freely branching.

Flowering stem length.—About 107 cm.

Stem color.—Close to 144A.

Foliage description.—Arrangement: Alternate.

Length: About 13.5 cm. Width: About 9.9 cm. Apex: Cuspidate. Base: Attenuate. Margin: Palmately lobed. Texture: Upper and lower surfaces slightly pubescent. Veins prominent on lower surface. Color: Young foliage upper surface: Darker than 147A. Young foliage lower surface: Darker than 147B. Mature foliage upper surface: 147A. Mature foliage lower surface: 147B. Venation upper surface: 147B. Venation lower surface: 147B–147C. Petiole: Length: About 2.2 cm. Diameter: About 3 mm. Color: Upper, 147C; lower, 147C; margins, 147A.

Flowering description:

Appearance.—Decorative spray-type inflorescence form with oblong to elliptic-shaped ray florets. Inflorescences 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 four weeks in an interior environment after one week of cool storage.

Quantity of Inflorescences.—Very floriferous with about 19 inflorescences per flowering stem.

Inflorescence size.—Diameter: About 5.75 cm. Depth (height): About 1.9 cm. Diameter of disc: Inconspicuous, about 2.5 mm. Diameter of receptacle: About 7.5 mm.

Ray florets.—Shape: Oblong to elliptic; concave. Length: About 2.75 cm. Width: About 1 cm. Apex: Acute or dentate. Base: Attenuate. Margin: Entire. Texture: Satiny, smooth, glabrous. Aspect: Initially upright, then perpendicular to peduncle. Number of ray florets per inflorescence: Numerous, full inflorescences, typically more than 200. Color: When opening: 163A. Mature, upper surface: 163B to 23A with overtones of 168A. Mature, lower surface: Close to 12A–12B.

Disc florets.—Shape: Tubular. Length: About 6 mm. Width: Apex, about 1 mm; base, about 1 mm. Number of disc florets per inflorescence: Few, typically less than 12. Color: Immature: Green, close to 144A. Mature: Apex: Yellow, 9A. Mid-section/base: White.

Peduncle.—Aspect: Strong and angled about 45° to the stem. Length: First peduncle: About 5.75 cm. Fourth peduncle: About 9.7 cm. Seventh peduncle: About 12.75 cm. Texture: Very fine pubescence. Color: Close to 144A.

Reproductive organs.—Androecium: Present on disc florets only. Anther color: 12A. Amount of pollen: None observed. Gynoecium: Present on both ray and disc florets.

Disease resistance: Resistance to diseases 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 temperatures as low as 5° C.

Seed production: Seed production has not been observed.

It is claimed:

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

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