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Vandenberg

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

(75) **Inventor: Cornelis P. Vandenberg, Salinas, CA
(US)**

(73) **Assignee: Yoder Brothers, Inc., Barberton, OH
(US)**

(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
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Primary Examiner—Howard J. Locker
(74) *Attorney, Agent, or Firm*—C. A. Whealy

(57) **ABSTRACT**

A distinct cultivar of Chrysanthemum plant named ‘Logic’,
characterized by its large decorative-type inflorescences that
are about 7.5 cm in diameter; attractive purple-colored ray
florets; early flowering, response time about 52 days; dark
green foliage; strong stems; and good postproduction lon-
gevity with inflorescences maintaining good substance and
color for about three 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 *Chrysan-
themum*×*morifolium* and hereinafter referred to by the name
‘Logic’.

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 form and sub-
stance.

The new Chrysanthemum originated from a cross made
by the Inventor in March, 1996, in Salinas, Calif., of a
proprietary Chrysanthemum seedling selection identified as
code number D720, not patented, as the female, or seed,
parent with the Chrysanthemum cultivar Suerte, disclosed in
U.S. Plant Pat. No. 10,225, as the male, or pollen, parent.
Plants of the cultivar Suerte have daisy-type inflorescences.

The cultivar Logic 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,
1997. The selection of this plant was based on its desirable
inflorescence colors and good form and substance.

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.

SUMMARY OF THE INVENTION

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

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1. Large decorative-type inflorescences that are about 7.5
cm in diameter.
2. Attractive purple-colored ray florets.
3. Early flowering, response time about 52 days.
4. Dark green foliage.
5. Thick and strong stems.
6. Good postproduction longevity with inflorescences
maintaining good substance and color for about three
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. 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 per-
spective view of a typical flowering stem of ‘Logic’ grown
as a spray-type cut Chrysanthemum.

The photograph on the second sheet comprises a close-up
view of typical inflorescences of ‘Logic’.

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 Jun. 7, 2000 and received 12 long
day/short nights followed by short day/long nights until
flowering. Plants were grown as single-stem spray-type 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 Aug. 21, 2000.

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

Commercial classification: Decorative-type cut Chrysanthemum.

Parentage:

Female or seed parent.—Proprietary *Chrysanthemum*×*morifolium* seedling selection identified as D720, not patented.

Male or pollen parent.—*Chrysanthemum*×*morifolium* cultivar Suerte, disclosed in U.S. Plant Pat. No. 10,225.

Propagation:

Type.—Terminal tip cuttings.

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

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

Plant description:

Appearance.—Herbaceous decorative-type cut flower.

Flowering stem description.—Aspect: Erect. Length: About 109.2 cm. Spray width: About 27 cm. Diameter: About 7.5 mm. Texture: Pubescent. Color: Close to 146A.

Foliage description.—Arrangement: Alternate. Length: About 10.25 cm. Width: About 7 cm. Apex: Cuspidate to mucronate. Base: Mostly truncate. Margin: Palmately lobed; sinuses mostly divergent. Texture: Upper and lower surfaces pubescent; veins prominent on lower surface. Color: Young foliage upper surface: Close to 147A. Young foliage lower surface: Close to 147B. Mature foliage upper surface: Close to 147A; venation, close to 147B. Mature foliage lower surface: Close to 147B; venation, close to 146C. Petiole: Length: About 1.75 cm. Diameter: About 4 mm. Color: Close to 147B to 147C.

Flowering description:

Appearance.—Decorative-type inflorescence form with elongated oblong-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 about two to three weeks of long day/short night conditions after planting followed by photoinductive short day/long night conditions flower about 52 days later.

Postproduction longevity.—In an interior environment, flowering stems will maintain good color and substance for about three 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 7.5 cm. Depth (height): About 2.3 cm. Diameter of disc: About 2.5 mm, inconspicuous. Diameter of receptacle: About 8 mm.

Ray florets.—Shape: Elongated oblong, fused at base. Length: About 3.8 cm. Width: About 1.1 cm. Corolla tube length: About 5 mm. Corolla tube width, at base: About 1 mm. Apex: Acute or emarginate. Base: Fused. Texture: Satiny, smooth, glabrous. Aspect: Initially incurved and concave; when mature, flat to slightly convex with some longitudinal twisting of outer rays; about 90° from vertical. Number of ray florets per inflorescence: About 259 arranged in numerous rows. Color: When opening, upper and lower surfaces: 77A. Mature, upper surface: 77A to 78A; fading to 77B with subsequent development. Mature, lower surface: Ground color white, close to 155D, underlain with 77A.

Disc florets.—Shape: Tubular; slightly flared at apex. Length: About 5 mm. Width: Apex: About 1.25 mm. Base: About 1 mm. Number of disc florets per inflorescence: Massed at center of receptacle, less than 25. Color: Immature: 144A to 154A. Mature: Apex: 9A. Mid-section and base: 155D.

Peduncle.—Aspect: Strong, angled about 45 to 50° from vertical. Length: First peduncle: About 9.8 cm. Fourth peduncle: About 14 cm. Seventh peduncle: About 18.8 cm. Diameter: About 3 mm. Texture: Very fine pubescence. Color: 146A.

Reproductive organs.—Androecium: Present on disc florets only. Anther color: 9A. Amount of pollen: Scarce. Pollen color: Close to 12A. 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 'Logic', as illustrated and described.

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