

[54] CHRYSANTHEMUM PLANT

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[57] ABSTRACT

A standard capitulum type of chrysanthemum plant which is a sport of the non-commercial cultivar Arcade, disclosed in U.S. Plant Pat. No. 3,659, granted Nov. 26, 1974; Brocade being distinguished from the parent cultivar by its medium to dark yellow ray floret color, taller plant height, larger flower size, and longer flowering response period.

1 Drawing Figure

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The present invention comprises a new and distinct cultivar of *Chrysanthemum morifolium*, Ramat., hereinafter referred to by the cultivar name Brocade.

Brocade is a product of a planned sport induction program which had the objective of expanding the color range of the parental cultivar, Arcade, disclosed in our U.S. Plant Pat. No. 3,659, granted Nov. 26, 1974.

Brocade was discovered and selected by William E. Duffett and Walter H. Jessel, Jr. on June 18, 1975 as one plant within a flowering block of the parental cultivar in a controlled environment in Barberton, Ohio. Plants within the flowering block were derived from stock plants which had been irradiated as rooted cuttings with an x-ray source of 2600 r units.

The first act of asexual reproduction of Brocade was accomplished when vegetative cuttings were taken from the initial selection in October, 1975 in a controlled environment in Barberton, Ohio by a technician working under formulations established and supervised by Walter H. Jessel, Jr. and William E. Duffett. Continued asexual reproduction by vegetative cuttings for evaluative flowering and stock programs in conjunction with horticultural examination of selected units initiated Jan. 30, 1976 has demonstrated that the combination of characteristics as herein disclosed for Brocade are firmly fixed and are retained through successive generations of asexual reproduction.

Brocade has not been observed under all possible environmental conditions. The phenotype may vary significantly with variations in environment such as temperature, light intensity, and daylength. The following observations, measurements, and comparisons describe plants grown in Barberton, Ohio and in Salinas, Calif. under greenhouse environmental conditions which approximate those generally used in commercial practice.

The following traits have been repeatedly observed and are determined to be basic characteristics of Brocade which in combination distinguish this chrysanthemum as a new and distinct cultivar:

- (1) Standard capitulum type.
- (2) Incurved capitulum form.
- (3) Medium to dark yellow ray floret color.
- (4) Diameter across face of capitulum ranging from 145 to 170 mm. at maturity.
- (5) Uniform eight week photoperiodic flowering response to short days.

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(6) Medium plant height (requires 1-3 long days prior to short days to attain a flowered plant height of 77 to 82 cm. when grown as a single stem plant for April through November flowerings).

(7) Excellent shipping durability.

The accompanying color photographic drawing shows typical inflorescence and foliage characteristics of Brocade. Some difficulty was encountered in obtaining accurate color representation, the photographic rendition being more gold and less yellow than the actual flower color of Brocade. The color readings within the following description are, however, correct.

Of the many commercial cultivars known to the present inventors, the most similar existing cultivar in comparison to Brocade is #2 Yellow Albatross (unpatented). Reference is made to attached Chart A which compares certain characteristics of Brocade with the same characteristics of #2 Yellow Albatross. Comparisons to the parental cultivar, Arcade, are also included, although Arcade has not been commercially distributed. General comparisons are as follows:

(1) In comparison to #2 Yellow Albatross, Brocade has darker yellow flower color, larger capitulum size, and taller plant height. The shipping durability, flowering response period, capitulum form, and capitulum type of Brocade are similar to those same characteristics of #2 Yellow Albatross.

(2) In comparison to Arcade, the ray floret color of which is white, Brocade has different ray floret color, larger diameter across face of capitulum, taller plant height, and longer flowering response period. The shipping durability, capitulum form, and capitulum type of Brocade are similar to those same characteristics of Arcade.

In the following description, color references are made to A Limit Color Cascade, published by the Munsell Company, 1972 edition. The color values were determined between 9:30 and 10:00 A.M. on May 17, 1978 under 90 foot-candle light intensity at Salinas, Calif.

Botanical classification: *Chrysanthemum morifolium*, Ramat., cv Brocade.

I. INFLORESCENCE

A. Capitulum:

Form.—Incurved.

Type.—Standard.

Permanence.—14 to 18 days.

Diameter across face.—145 to 170 mm.

B. Corolla of ray florets:

Color (abaxial).—26-5 to 26-3.

Color (immature center).—Approximately 24-7.

Color (adaxial).—26-3 to 26-2.

C. Reproductive organs:

Androecium.—Present disc florets; scant to few; scant pollen.

Gynoecium.—Present both ray and disc florets.

II. PLANT

A. General appearance: Semi-upright branching pattern; medium height.

B. Foliage:

Color (abaxial).—Approximately 19-15.

Color (adaxial).—20-13 to 20-14.

Chart A

Comparison of Brocade, #2 Yellow Albatross, and Arcade.						
Cultivar	Ray Floret Color	Diameter Across Face of Capitulum	Plant Height	Shipping Durability	Flowering Response Period	Capitulum Form and Type
Brocade	Medium to Dark	145 to 170 mm.	Medium, 77 to	Excellent	8 week	Incurved Standard

Chart A—Continued

Comparison of Brocade, #2 Yellow Albatross, and Arcade.						
Cultivar	Ray Floret Color	Diameter Across Face of Capitulum	Plant Height	Shipping Durability	Flowering Response Period	Capitulum Form and Type
#2 Yellow Albatross	yellow Light to medium yellow	125 to 150 mm.	82 cm. Short, 60 to 70 cm.	Excellent	8 week	Incurved Standard
Arcade	White	140 to 165 mm.	Short, 65 to 75 cm.	Excellent	7 week	Incurved Standard

*Comparisons made of plants grown in a greenhouse in Barberton, Ohio and in Salinas, California.

We claim:

1. A new and distinct cultivar of *Chrysanthemum morifolium*; Ramat., known by the cultivar name Brocade and particularly characterized as to uniqueness by the combined characteristics of standard capitulum type, incurved capitulum form, medium to dark yellow ray floret color, diameter across face of capitulum ranging from 145 to 170 mm. at maturity, uniform eight week flowering response, medium plant height, and excellent shipping durability.

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U.S. Patent

Oct. 30, 1979

Plant 4,474

