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Fuess

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[54] **CHRYSANTHEMUM PLANT NAMED 'EMPIRE GOLD CHAMPAGNE'**

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[51] Int. Cl.⁶ **H01H 5/00**

[52] U.S. Cl. **Plt./79**

[58] Field of Search **Plt./79**

[56] References Cited

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[57] ABSTRACT

A new and distinct cultivar of Chrysanthemum plant named Empire Gold Champagne, characterized particularly by its gold ray florets; almost fully double flowers which are very resistant to shattering; compact, cushion habit; 6.0-8.0 cm capitulum diameter; a natural season flower date of September 28, and eight week flower response in light/shade programs.

1 Drawing Sheet

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The present invention comprises a new and distinct cultivar of Chrysanthemum, botanically known as *Dendranthema grandiflora*, and referred to by the cultivar name Empire Gold Champagne.

Empire Gold Champagne is a product of a mutation induction program. The new cultivar was discovered and selected by inventor Janet S. Fuess in March 1993 in a controlled environment in New Hartford, N.Y. as one flowering plant within a flowering block established as rooted cuttings from stock plants which had been exposed as rooted cuttings to an X-ray source of 1270-1800 rads in Mulberry, Fla. on Jan. 7, 1993. The irradiated parent cultivar was the cultivar Pink Champagne, disclosed in U.S. Plant Pat. No. 6,920 and described as a decorative garden mum with lavender pink color.

The irradiation program resulting in Empire Gold Champagne had as its primary objective the expansion of color ranges of the parent cultivar Pink Champagne. The irradiation program comprised irradiating cuttings of the parent cultivar at radiation levels of a minimum of 1270 and a maximum of 1800 rads for 90 seconds. A total of 1375 cuttings harvested from a total of 500 irradiated plants were flowered on Mar. 8, 1993. Of these, 69 initial selections were made, which selections were then revegetated and reflowered on Aug. 28, 1993 and again on Feb. 6, 1994. Twelve selections remained stable, and were flowered on May 22, 1994 and Sep. 18, 1994 before choosing the final 3 selections. These three varieties were further trialed in New Hartford, N.Y. and Oxnard, Calif., ultimately resulting in the decision to introduce one selection as Empire Royal Champagne, one as Empire Gold Champagne and one as Empire Peach Champagne. The selections Empire Royal Champagne and Empire Peach Champagne are disclosed in pending application Ser. Nos. 08/670,280 and 08/670,277, respectively.

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The first act of asexual reproduction of Empire Gold Champagne was accomplished when vegetative cuttings were taken from the initial selection in June 1993 in a controlled environment in New Hartford, N.Y. by a technician working under formulations established and supervised by the inventor. Horticultural examination of selected units initiated in September 1993 has demonstrated that the combination of characteristics as herein disclosed for Empire Gold Champagne are firmly fixed and are retained through successive generations of asexual reproduction.

Empire Gold Champagne has not been observed under all possible environmental conditions. The phenotype may vary significantly with variations in environment such as temperature, light intensity, and day length, without, however, any variation in genotype. The following observations, measurements and comparisons described plants grown in New Hartford, N.Y. under natural outdoor conditions which approximate those generally used in commercial practice.

The following traits have been repeatedly observed and are determined to be basic characteristics of Empire Gold Champagne, which in combination distinguish this Chrysanthemum as a new and distinct cultivar:

1. Gold (yellow-orange) ray floret color.
2. Almost fully double flowers, with only a few disc florets present.
3. Flowers are very resistant to shattering.
4. Fully expanded ray florets are approximately 30-35 mm long and 7-8 mm wide.
5. Average of 360 ray florets per capitulum.
6. Capitulum is 6-8 cm in diameter.
7. Eight (8) week flower response in light/shade programs.
8. Performs well in the outdoor garden, with a natural season flowering date of September 28 in New Hartford, N.Y.

9. Compact cushion habit, making it suitable for production in 4" up to 8" containers.

10. Fully branching and flowering.

Of the many commercial cultivars known to the inventor, the most similar in comparison to Empire Gold Champagne is the parent cultivar Pink Champagne. In comparison to Pink Champagne, Empire Gold Champagne has a gold (yellow-orange) flower color whereas Pink Champagne has a lavender pink flower color, and Empire Gold Champagne flowers approximately 1 week later in light/shade and natural season programs. All other traits of Empire Gold Champagne are similar to those same characteristics of Pink Champagne. Empire Gold Champagne is also distinguished from sibling cultivars Empire Royal Champagne and Empire Peach Champagne by ray floret color and by the 1 week later flower response of Empire Gold Champagne.

The accompanying color photographic drawing is a top perspective view showing typical inflorescence and foliage characteristics of Empire Gold Champagne, with colors being as nearly true as possible with illustrations of this type.

In the following description, color references are made to The Royal Horticultural Society Colour Chart. The color values were determined between 10:00 AM and 1:00 PM on Sep. 29, 1995 under 4,000 footcandles at New Hartford, N.Y.

Classification:

Botanical.—*Dendranthema grandiflora* cv. Empire Gold Champagne.

Commercial.—Decorative garden mum.

Inflorescence

A. Capitulum:

Form.—Flat.

Type.—Decorative (double).

Diameter across face.—6–8 cm.

B. Corolla of ray florets:

Color: (general tonality from a distance of three meters).—Gold (yellow-orange).

Color (upper surface).—22B, center darker, approximately 22A; as the flower ages, the ray floret tips darken to 22A.

Color (under surface).—20B.

C. Corolla of disc florets:

Color (mature).—7A.

Color (immature).—5A.

D. Reproductive organs:

Androecium.—Very few; present in disc florets only.

Gynoecium.—Present in both disc and ray florets.

Plant

A. General appearance:

Height.—25–35 cm, when grown in an 8" pot.

B. Foliage:

Color (upper surface).—147A.

Color (lower surface).—147B.

Size and shape.—Ovate with cleft margins. Approximately 6.0 cm long, 4.5 cm wide, and 5-lobed.

It is claimed:

1. A new and distinct cultivar of *Chrysanthemum* plant named Empire Gold Champagne, as illustrated and described.

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U.S. Patent

Oct. 7, 1997

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