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Vandenberg

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(54) **CHRYSANTHEMUM PLANT NAMED 'FESTIVE NEW YOORLEANS'**

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(52) **U.S. Cl.** **Plt./286**
(58) **Field of Search** Plt./286

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,616,099 * 10/1986 Sparkes 47/58

OTHER PUBLICATIONS

Shukla, et al., 1993, "Mutation studies on early and late varieties of garden chrysanthemums", J. Nuclear Agric. Biol., 22 (3–4): 138–142.*
Broertjes, et al., 1980, "A mutant of a mutant of a . . . Irradiation of progressive mutation–induced mutants in a mutation breeding programme with *Chrysanthemum* morifolium", Euphytica, 29:525–530.*
Gosling, ed., 1979, "The Chrysanthemum Manual—6th edition", The National Chrysanthemum Society, London, Essex Telegraph Press, Ltd. pp. 329–336.*
Broertjes, et al., 1978 "Application of Mutation Breeding Methods in the Improvement of Vegetatively Propagated Crops", Elsevier Sci. Pub. Co., New York, pp. 162–175.*
Seale, et al., 1968, "Chrysanthemums the Year Round", Blanford Press, London, pp. 27–29, 320–327.*
Chan, 1966, "Chrysanthemum and rose mutations induced by x–rays", Am. Soc. Hort. Sci. Proc., pp. 613–620.*
Broertjes, 1966, "Mutation breeding of chrysanthemums", Euphytica, 15:156–162.*
Dowrick, et al., 1966, "The induction of mutations in chrysanthemum using x– and gamma radiation", Euphytica, 15:204–210.*

* cited by examiner

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(57) **ABSTRACT**

A distinct cultivar of Chrysanthemum plant named 'Festive New Yoorleans', characterized by its upright and uniformly mounded plant habit; freely branching, dense and full plants; dark green foliage; uniform flowering; early flowering, eight-week response time; very freely flowering with about ten inflorescences per lateral stem; daisy-type inflorescences that are about 7.1 cm in diameter; bi-colored ray florets with light yellow bases and reddish purple apices; bright yellow disc florets; and excellent postproduction longevity with inflorescences and leaves maintaining good substance and color for about three weeks in an interior environment.

2 Drawing Sheets

BACKGROUND OF THE INVENTION

The present Invention relates to a new and distinct cultivar of Chrysanthemum plant, botanically known as *Dendranthema grandiflora* and hereinafter referred to by the cultivar name Festive New Yoorleans.

The new Chrysanthemum is a product of a mutation induction breeding program conducted by the Inventor in Fort Myers, Fla. and Salinas, Calif. The objective of the program is to create new Chrysanthemum cultivars with desirable inflorescence form and floret colors, good substance, and excellent post-production longevity.

The new Chrysanthemum originated by exposing unrooted cuttings of the Chrysanthemum cultivar New Yoorleans, disclosed in U.S. Plant Pat. No. 11,215, to X-ray radiation in December, 1996, 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, terminal cuttings were harvested, planted and flowered in a controlled environment in Salinas, Calif. The new Chrysanthemum was discovered and selected by the Inventor as a single flowering plant within this population in April, 1997. The selection of this plant was based on its desirable inflorescence form and ray floret color.

Asexual reproduction of the new Chrysanthemum by terminal cuttings harvested 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.

SUMMARY OF THE INVENTION

The cultivar Festive New Yoorleans 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 'Festive New Yoorleans'. These characteristics in combination distinguish 'Festive New Yoorleans' as a new and distinct Chrysanthemum:

1. Upright plant habit.
2. Freely branching, dense and full plants.
3. Dark green foliage.
4. Uniform flowering.
5. Early flowering, eight-week response time.
6. Very freely flowering; about ten inflorescences per lateral stem.

7. Daisy-type inflorescences that are about 7.1 cm in diameter.

8. Bi-colored ray florets with light yellow bases and reddish purple apices and bright yellow disc florets.

9. Excellent postproduction longevity with inflorescences and leaves maintaining good substance and color for about three weeks in an interior environment.

Compared to plants of the parent cultivar, New Yoorleans, ray florets of plants of the new Chrysanthemum are light yellow with reddish purple apices whereas ray florets of plants of the cultivar New Yoorleans are white with purple apices. In addition, plants of the new Chrysanthemum flower about one or two days later than plants of the cultivar New Yoorleans.

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 from the color values cited in the detailed botanical description which more accurately describe the actual colors of the new Chrysanthemum.

The photograph at the top of the first sheet comprises a top perspective view of a typical flowering plant of 'Festive New Yoorleans'.

The photograph at the bottom of the first sheet comprises a close-up view of upper (left) and lower (right) surfaces of typical inflorescences and upper (left) and lower (right) surfaces of typical leaves of the cultivar Festive New Yoorleans.

The photograph at the top of the second sheet comprises a side perspective view of typical flowering plants of 'Festive New Yoorleans' (left) and 'New Yoorleans' (right).

The photograph at the bottom of the second sheet comprises a close-up view of typical inflorescences of plants of 'Festive New Yoorleans' (left) and 'New Yoorleans' (right).

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 and flowered during the Autumn in Leamington, 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 and pinched once. Plants used for this description were grown as center budded-types. Measurements and numerical values represent averages of typical flowering plants.

Botanical classification: *Dendranthema grandiflora* cultivar Festive New Yoorleans.

Commercial classification: Daisy center budded-type potted Chrysanthemum.

Parentage: Induced mutation of the *Dendranthema grandiflora* cultivar New Yoorleans, disclosed in U.S. Plant Pat. No. 11,215.

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.—Herbaceous daisy potted Chrysanthemum typically grown as a center budded-type. Inverted triangle; stems mostly upright and somewhat outwardly spreading giving a uniformly mounded appearance to the plant. Freely branching; about four lateral branches develop after removal of terminal apex (pinching); dense and full plants.

Plant height.—About 35 cm.

Plant width.—About 45 cm.

Foliage description.—Arrangement: Alternate. Length: About 7.3 cm. Width: About 5.4 cm. Apex: Cuspidate. Base: Mostly truncate. Margin: Palmately lobed, sinuses between lateral lobes mostly convergent. Texture: Upper and lower surfaces with very fine pubescence; veins prominent on lower surface. Petiole length: About 1.1 cm. Petiole diameter: About 4 mm. Color: Young foliage upper surface: 147A. Young foliage lower surface: Darker than 147B. Mature foliage upper surface: 147A. Mature foliage lower surface: 147B. Venation upper surface: 147A. Venation lower surface: 147B.

Inflorescence description:

Appearance.—Daisy inflorescence form with elongated oblong-shaped ray florets. Inflorescences borne on terminals above foliage. 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 three weeks of long day/short night conditions after planting followed by photoinductive short day/long night conditions flower about eight weeks later; early flowering.

Postproduction longevity.—Inflorescences and leaves maintain good color and substance for about three weeks in an interior environment.

Quantity of inflorescences.—Very freely flowering; about ten inflorescences per lateral stem and about 40 inflorescences per plant.

Inflorescence bud.—Height: About 7 mm. Diameter: About 7 mm. Color: Close to 143A.

Inflorescence size.—Diameter: About 7.1 cm. Depth (height): About 1.5 cm. Diameter of disc: About 1.6 cm.

Ray florets.—Shape: Elongated-oblong. Orientation: Initially upright, then about 30 to 45° to horizontal. Length: About 3.4 cm. Width: About 1.1 cm. Apex: Acute. Margin: Entire. Texture: Smooth, glabrous, satiny. Number of ray florets per inflorescence: About 20. Color: When opening: Mostly yellow, close to 4A. Fully opened, upper surface: Towards base, light yellow, close to 4B to 4C; apex, reddish purple, close to 61A. Fully opened, lower surface: Light yellow, close to 4B to 4C.

Disc florets.—Shape: Tubular. Apex: Serrated. Length: About 6 mm. Width: Apex: About 1.5 mm. Base: About 1 mm. Number of disc florets per inflorescence: About 108. Color: Immature: 154A. Mature: Apex: Yellow, 9A to 14A. Mid-section and base: White, 155D.

Peduncles.—Aspect: Angled about 45° to stem. Length: First peduncle: About 6.5 cm. Fourth peduncle: About 7.2 cm. Diameter: About 2 mm. Texture: Pubescent. Color: 146A.

Reproductive organs.—Androecium: Present on disc florets only. Anther color: 9A. Pollen amount: None observed. Gynoecium: Present on both ray and disc florets.

Disease resistance: Resistance to pathogens common to Chrysanthemums has not been observed 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 'Festive New Yoorleans', as illustrated and described.

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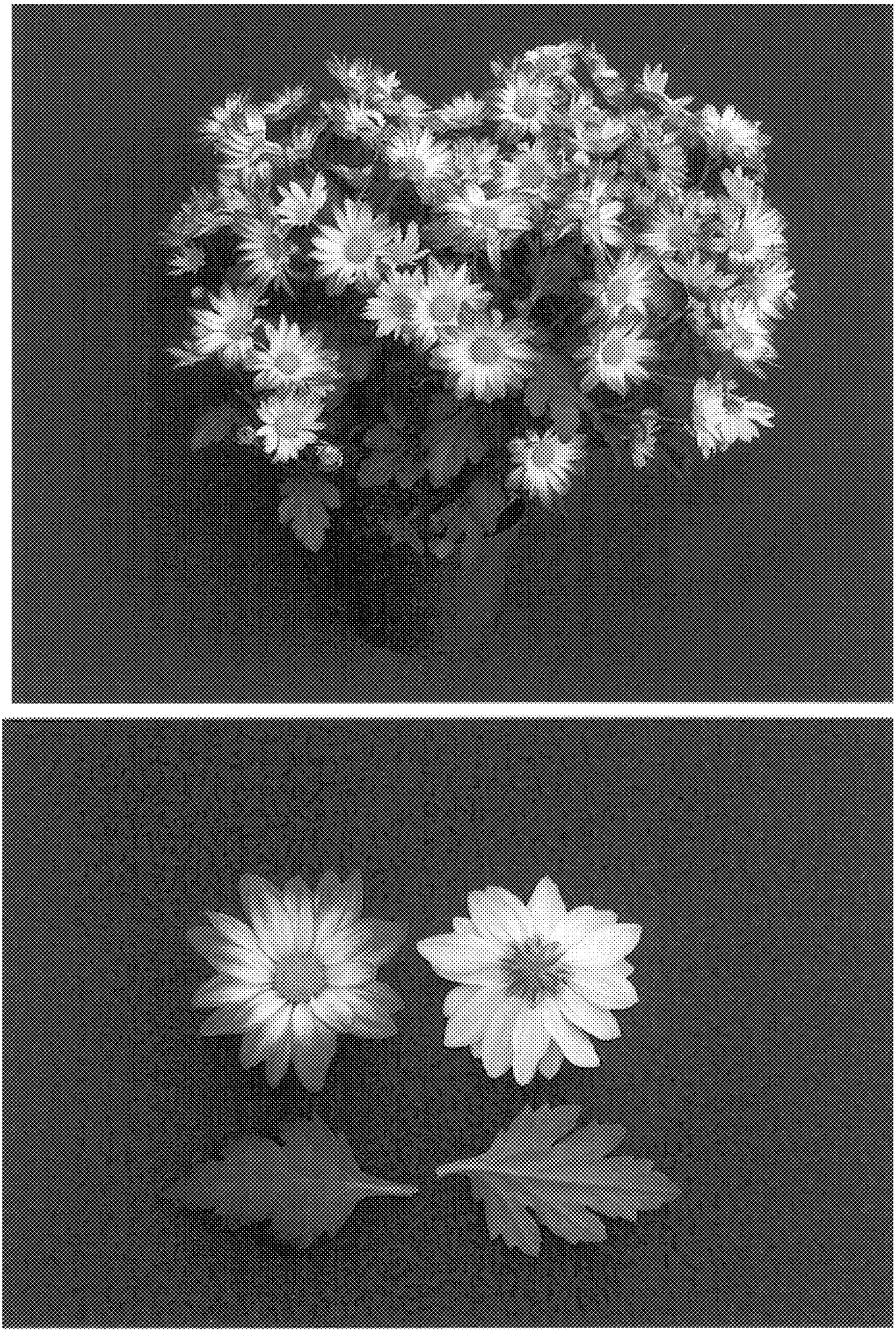

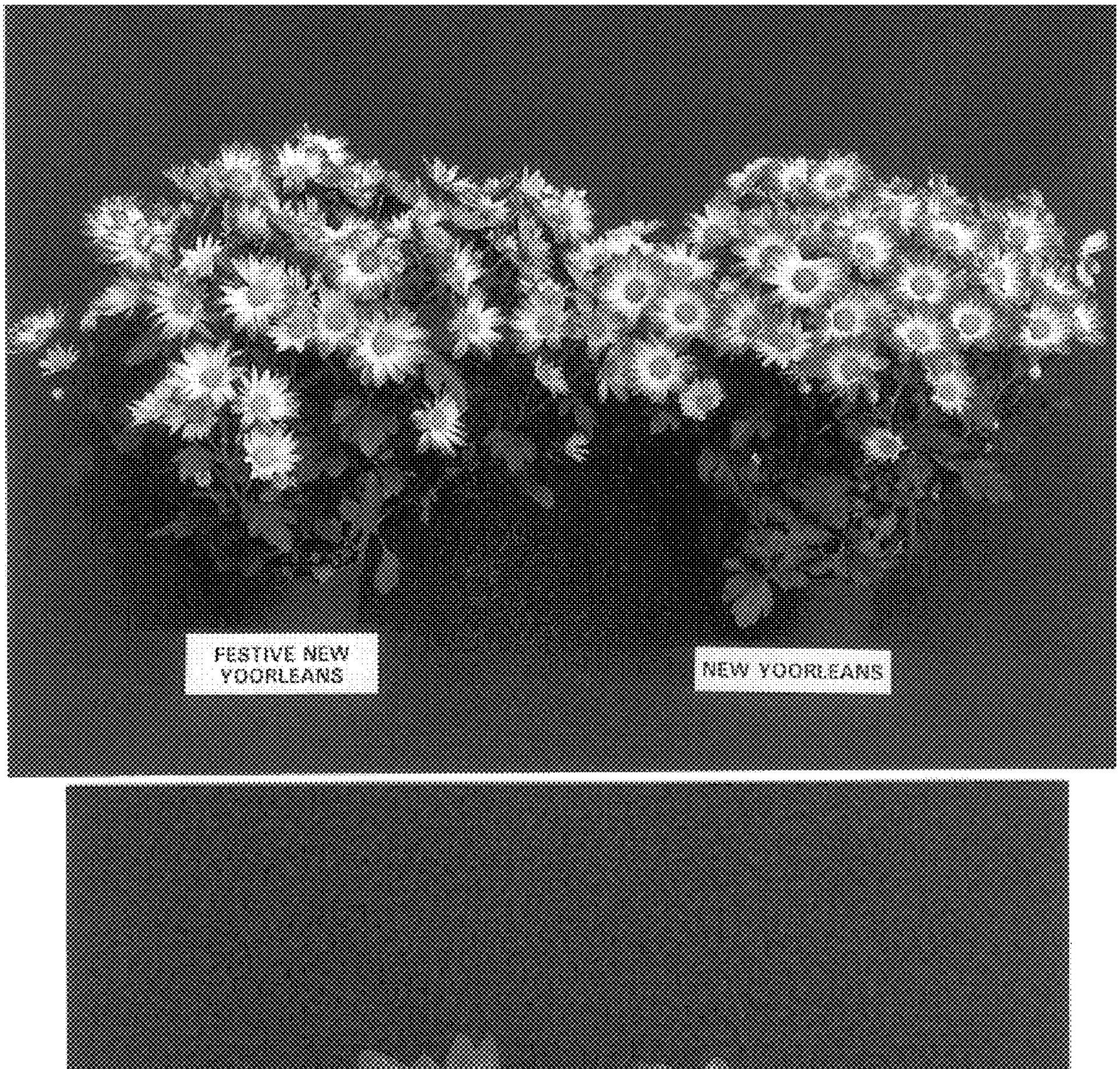
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