

[54] CHRYSANTHEMUM PLANT NAMED WHITE NOVA

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[21] Appl. No.: 419,007

[22] Filed: Sep. 16, 1982

[51] Int. Cl.³ A01H 5/00

[52] U.S. Cl. Plt./74

[58] Field of Search Plt./74

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[57] ABSTRACT

A chrysanthemum plant named White Nova characterized by its flat capitulum form; daisy capitulum type; white ray floret color; diameter across face of capitulum ranging from 75 to 95 mm. at maturity; uniform nine (9) week photoperiodic flowering response to short days; tall plant height when grown as a single stem cut spray; 10 to 15 cm. peduncles on open, normally terminal sprays, and slow development of tight green discs, and tolerance of 13° C. (56° F.) for initiation and development when grown in single stem cut spray programs with a continuous dark period of 13 to 15 hours.

3 Drawing Figures

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The present invention comprises a new and distinct cultivar of *Chrysanthemum morifolium*, Ramat., herein after referred to by the cultivar name White Nova.

White Nova is an induced mutation of an unnamed light pink daisy, which was in turn an induced mutation derived from the pink daisy cultivar Nova, disclosed in U.S. Plant Pat. No. 4,992. The unnamed light pink daisy parent was irradiated and reselected to clarify its color by the removal of undesirable light pink tinging.

The parental mutation of White Nova was a product of a planned mutation induction program which had the objective of creating a new chrysanthemum cultivar for cut spray mum programs with daisy capitulum type, white ray floret color, nine (9) week flowering response, and having the ability to produce commercially acceptable quality in year round programs. White color was required to compliment the original pink color of Nova and retain all other traits.

White Nova was discovered and selected as one flowering plant within a population of plants propagated from stock plants which had been irradiated as cuttings with an X-ray source of 900 rads by William E. Duffett on Apr. 3, 1979 in a controlled environment in Salinas, Calif.

The first act of asexual reproduction of White Nova was accomplished when vegetative cuttings were taken from the initial selection on July 26, 1979 in a controlled environment in Salinas, Calif. by a technician working under formulations established and supervised by William E. Duffett.

Horticultural examination of selected units initiated June, 1980 has demonstrated that the combination of characteristics as herein disclosed for White Nova are firmly fixed and are retained through successive generations of asexual reproduction.

White Nova 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. The following observations, measurements and comparisons describe plants grown in Salinas, Calif. under greenhouse conditions which approximate those generally used in commercial practice.

The following traits have been repeatedly observed and are determined to be basic characteristics of White

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Nova which in combination distinguish this chrysanthemum as a new and distinct cultivar:

- (1) flat capitulum form;
- (2) daisy capitulum type;
- (3) white ray floret color with minimum color oxidation;
- (4) yellow-green (immature) to yellow (mature) disc floret color;
- (5) diameter across face of capitulum ranging from 75 to 95 mm. at maturity;
- (6) uniform nine (9) week photoperiodic flowering response to short days;
- (7) medium peduncle length, ranging from 10 to 15 cm.;
- (8) tall plant height (requiring one to two long day weeks prior to short days to attain a flowered plant height of 80 to 90 cm. for May through October flowerings); and
- (9) low temperature tolerance of 13° C. (56° F.) for initiation and development when grown in single stem cut spray programs with a continuous dark period of 13 to 15 hours.

The accompanying photographic drawings show typical inflorescence and foliage characteristics of White Nova, with the colors being as nearly true as possible with illustrations of this type. Sheet 1 is a color photograph of White Nova grown as a single stem cut spray. Sheet 2 is a black and white photograph showing the foliage of White Nova at three stages of growth. Sheet 3 is a black and white photograph of three views of the inflorescence of White Nova.

Of the many commercial cultivars known to the present inventor, the most similar in comparison to White Nova is White Marble (unpatented). Reference is made to attached Chart A which compares certain characteristics of White Nova to those same characteristics of White Marble.

In comparison to White Marble, White Nova has similar white ray floret color, with similar color retention and a slower rate of oxidation; its spray formation is generally terminal with shorter peduncle length and taller plant height; it has a smaller diameter across the face of the capitulum by 5 to 10 mm.; capitulum form, capitulum type and flowering response to short days are similar.

In the following description, color references are made to The Royal Horticultural Society Colour Chart. The color values were determined between 11:00 and 11:30 A.M. on June 30, 1982 under 150 foot-candle light intensity at Salinas, Calif.

CLASSIFICATION

Botanical: *Chrysanthemum morifolium*, Ramat., cv White Nova.
Commercial: Cut Daisy Spray.

INFLORESCENCE

Capitulum:
Form.—Flat.
Type.—Daisy.
Diameter across face.—75 To 95 mm.
Corolla of ray florets:
Color (general tonality from a distance of three meters).—White; approximately 155D.
Color (abaxial).—155D faintly tinged 75C to 75D (immature) to 155D (mature).
Color (adaxial).—155D faintly tinged 75C to 75D (immature) to 155D (mature).
Corolla of disc florets:
Color (mature).—153D to 6D.
Color (immature).—144B to 6D.
Reproductive organs:
Androecium.—Present disc florets only; scant pollen.
Gynoecium.—Present both ray and disc florets.

PLANT

General appearance:
Height.—Tall, 75 to 90 cm., as a flowering plant from a rooted cutting, with no long days for April through November flowerings and maintaining a minimum nightly 13 hour continuous dark period.

FOLIAGE
Color (abaxial).—139A.
Color (adaxial).—139B.
Shape.—Deeply lobed and coarsely serrated.

CHART A

COMPARISON OF WHITE NOVA AND WHITE MARBLE			
CULTI-VAR	RAY FLORET COLOR	CAPITULUM FORM AND TYPE	SPRAY FORMATION
WHITE NOVA	WHITE	FLAT DAISY	TERMINAL 10 to 15 cm. PEDUNCLES
WHITE MARBLE	WHITE	FLAT DAISY	TERMINAL AND COMPOUND 15 to 25 cm. PEDUNCLES
CULTI-VAR	DIAMETER ACROSS FACE OF CAPITULUM	PLANT HEIGHT	FLOWER RESPONSE PERIOD
WHITE NOVA	75 to 95 mm.	TALL 75 to 90 cm.	9 WEEKS
WHITE MARBLE	70 to 105 mm.	TALL 75 to 85 cm.	9 WEEKS

COMPARISONS MADE OF PLANTS GROWN AS SINGLE STEM CUT SPRAYS WITH NO LONG DAYS IN SALINAS, CALIFORNIA

I claim:
1. A new and distinct plant of *Chrysanthemum morifolium*, Ramat., known by the cultivar name of White Nova, as described and illustrated, and particularly characterized as to uniqueness by the combined characteristics of flat capitulum form; daisy capitulum type; white ray floret color; diameter across face of capitulum ranging from 75 to 95 mm. at maturity; uniform nine (9) week flowering response; tall plant height when grown as a single stem cut spray; 10 to 15 cm. peduncles on open, normally terminal sprays, and slow development of tight green discs, and tolerance of 13° C. (56° F.) for initiation and development when grown in single stem cut spray programs with a continuous dark period of 13 to 15 hours.

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