

(12) **United States Plant Patent**  
**Hoek**

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(54) **CHRYSANTHEMUM PLANT NAMED**  
**'ANASTASIA GREEN'**

(50) Latin Name: *Chrysanthemum*×*morifolium*  
Varietal Denomination: **Anastasia Green**

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(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 227 days.

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(52) **U.S. Cl.** ..... **Plt./287**

(58) **Field of Classification Search** ..... Plt./287  
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP12,003 P2 \* 7/2001 VandenBerg ..... Plt./287  
PP13,550 P2 \* 2/2003 Hoek ..... Plt./288

OTHER PUBLICATIONS

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Retrieval Software 2006/05 Citation for PBR20042266.\*

\* cited by examiner

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(57) **ABSTRACT**

A new and distinct cultivar of *Chrysanthemum* plant named  
'Anastasia Green', characterized by its large quilled spider  
double-type inflorescences with green-colored ray florets;  
numerous ray florets and few inconspicuous disc florets;  
dark green-colored foliage; strong and upright flowering  
stems; low number of lateral branches; short response time;  
and excellent postproduction longevity.

**1 Drawing Sheet**

**1**

Botanical designation: *Chrysanthemum*×*morifolium*.  
Cultivar denomination: 'Anastasia Green'.

**BACKGROUND OF THE INVENTION**

The present invention relates to a new and distinct cultivar  
of *Chrysanthemum* plant, botanically known as  
*Chrysanthemum*×*morifolium* and referred to by the name  
'Anastasia Green'.

The new *Chrysanthemum* was discovered and selected by  
the Inventor in a controlled environment in 's-Gravenzande,  
The Netherlands, as a naturally-occurring whole plant muta-  
tion of the *Chrysanthemum* cultivar Anastasia, disclosed in  
U.S. Plant Pat. No. 13,550. The new plant was discovered  
within a population of plants of the cultivar Anastasia and  
was selected on the basis of its unique green-colored ray  
florets.

Asexual reproduction of the new *Chrysanthemum* by  
terminal cuttings in 's-Gravenzande, The Netherlands since  
May, 2004, has shown that the unique features of this new  
*Chrysanthemum* are stable and reproduced true to type in  
successive generations.

**BRIEF SUMMARY OF THE INVENTION**

The cultivar Anastasia Green 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 'Anastasia  
Green'. These characteristics in combination distinguish  
'Anastasia Green' as a new and distinct cultivar:

**2**

1. Large quilled spider double-type inflorescences with  
green-colored ray florets; typically grown as a disbud-  
ded type with a single inflorescence per flowering stem.
2. Numerous ray florets and very few disc florets; disc  
florets typically inconspicuous.
3. Dark green-colored foliage.
4. Strong and upright flowering stems.
5. Low number of lateral branches which reduces the  
amount of disbudding required.
6. Short response time.
7. Excellent postproduction longevity.

Plants of the new *Chrysanthemum* are most similar to  
plants of the parent cultivar Anastasia. In side-by-side com-  
parisons conducted by the Inventor in 's-Gravenzande, The  
Netherlands, plants of the new *Chrysanthemum* differed  
primarily from plants of the cultivar Anastasia in ray floret  
coloration as plants of the cultivar Anastasia had white-  
colored ray florets. In addition, ray florets of plants of the  
new *Chrysanthemum* are curved at the apices whereas ray  
florets of plants of the cultivar Anastasia are straight at the  
apices.

**BRIEF DESCRIPTION OF THE PHOTOGRAPHS**

The accompanying colored photographs illustrate the  
overall appearance of the new cultivar, showing the colors as  
true as it is reasonably possible to obtain in colored repro-  
ductions of this type. Colors in the photographs may differ  
slightly from the color values cited in the detailed botanical  
description which accurately describe the actual colors of  
the new *Chrysanthemum*.

The photograph at the top of the sheet comprises a top  
perspective view of a typical flowering stem of 'Anastasia  
Green'.



The photograph at the bottom of the sheet comprises a close-up view of the upper and lower surfaces of typical leaves of 'Anastasia Green'.

#### DETAILED BOTANICAL DESCRIPTION

In the following description, color references are made to The Royal Horticultural Society Colour Chart, 1995 Edition, except where general terms of ordinary dictionary significance are used. The aforementioned photographs and following observations and measurements describe plants grown in 's-Gravensande, The Netherlands, under commercial practice in a glass-covered greenhouse. Plants were initially given long day/short night treatments followed by short day/long night treatments to induce flower initiation and development. Average day and night temperatures were 18° C. and 19° C., respectively. Plants were not pinched and were grown as single-stem disbud types.

Botanical classification: *Chrysanthemum* × *morifolium* cultivar Anastasia Green.

Commercial classification: Quilled spider double-type *Chrysanthemum* typically grown as a disbudded cut flower.

Parentage: Naturally-occurring whole plant mutation of *Chrysanthemum* × *morifolium* cultivar Anastasia, disclosed in U.S. Plant Pat. No. 13,550.

#### Propagation:

*Type*.—Terminal tip cuttings.

*Time to initiate roots, summer*.—About 10 days at 20° C.

*Time to initiate roots, winter*.—About 14 days at 20° C.

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

#### Plant description:

*Appearance*.—Herbaceous quilled spider double-type cut *Chrysanthemum*; typically grown as a single-stem and as a disbudded type with one single inflorescence per flowering stem. Upright and strong flowering stems.

*Growth rate*.—Moderate; moderately vigorous.

*Crop time*.—For cut flowers, about 78 and 124 days are required to produce flowering stems during the summer and winter, respectively.

*Flowering stem description*.—Length: About 80 to 90 cm. Diameter, as apex: About 6.5 mm. Strength: Strong. Aspect: Upright. Branching habit: Plants are typically grown as single stems, but if pinched, will develop 10 to 15 lateral stems. Color: 146B.

*Foliage description*.—Arrangement: Alternate. Quantity of leaves per main stem: About 20 to 25. Length: About 8 to 13 cm. Width: About 4 to 9 cm. Apex: Broadly acuminate. Base: Attenuate. Margin: Palmately lobed. Texture, upper and lower surfaces: Rough; pubescent. Petiole length: About 1 to 3 cm. Color: Developing foliage, upper surface: 147A. Developing foliage, lower surface: Closest to 147B. Fully expanded, upper surface: 147A. Fully expanded, lower surface: 137A. Venation, upper surface: 137B. Venation, lower surface: 146B. Petiole, upper and lower surfaces: 147B.

#### Inflorescence description:

*Appearance*.—Quilled spider double-type inflorescence form. Inflorescences borne on terminals, arising from leaf axils. Ray and disc florets develop acropetally on the receptacle.

*Flowering response*.—Under natural conditions, plants typically flower in November 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 hours of darkness). Plants exposed to long day/short night conditions after planting followed by photoinductive short day/long night conditions flower about eight weeks later.

*Postproduction longevity*.—Inflorescences will maintain good substance and form for about 3.5 weeks after harvesting.

*Quantity of inflorescences per flowering stem*.—Grown as a disbud type, all lateral inflorescences are removed and only the terminal inflorescence develops. If lateral inflorescences are not removed, about 8 to 11 inflorescences per flowering stem will develop.

*Inflorescence size*.—Diameter: Large, about 12 to 14 cm. Depth (height): About 4 to 5 cm. Diameter of disc: About 1.2 cm; inconspicuous.

*Inflorescence buds*.—Length: About 1 to 1.5 cm. Diameter: About 1.2 to 1.5 cm. Shape: Oblate. Color: Close to 146A.

*Ray florets*.—Length, fully developed: About 6.2 to 6.6 cm. Width, fully developed: About 4 to 5 mm. Shape: Fused, tubular; quilled; apex, incurved. Texture, inner and outer surfaces: Smooth, glabrous. Number of ray florets per inflorescence: About 250. Color: When opening, upper and lower surfaces: 144C. Fully opened, upper surface: 145A; color becoming closer to 145B with development. Fully opened, lower surface: 145C to 145D.

*Disc florets*.—Shape: Oblong, tubular. Length: About 6 mm. Width: About 1 mm. Number of disc florets per inflorescence: Few, about six; inconspicuous. Color: Immature: Close to 154D. Mature: Towards apex, 144A; center, 153D; towards base, 145D.

*Peduncles*.—Length, terminal peduncle: About 3 to 4 cm. Length, fourth peduncle: About 4 to 5 cm. Diameter: About 4 to 5 mm. Texture: Pubescent. Color: 147B.

*Reproductive organs*.—Androecium: Present on disc florets only. Anther color: 15B. Amount of pollen: Moderate. Pollen: 16B. Gynoecium: Present on both ray and disc florets. Stigma length: About 5 mm. Stigma width: About 0.5 mm. Stigma color: Towards the apex, 9C; towards the base, close to 155C.

*Seed/fruit*.—Seed and fruit production has not been observed.

Disease/pest resistance: Resistance to known *Chrysanthemum* pathogens and pests has not been observed on plants of the new *Chrysanthemum*.

It is claimed:

1. A new and distinct cultivar of *Chrysanthemum* plant named 'Anastasia Green', as illustrated and described.

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