



US00PP11912P2

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

(10) **Patent No.:** **US PP11,912 P2**

(45) **Date of Patent:** **Jun. 5, 2001**

(54) **CHRYSANTHEMUM PLANT NAMED**  
**'GOLDEN SPOTLIGHT'**

(75) **Inventor:** **Leon Glicenstein**, State College, PA  
(US)

(73) **Assignee:** **Yoder Brothers, Inc.**, Barberton, OH  
(US)

(\* ) **Notice:** Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** **09/225,013**

(22) **Filed:** **Jan. 4, 1999**

(51) **Int. Cl.<sup>7</sup>** ..... **A01H 5/00**

(52) **U.S. Cl.** ..... **Plt./289**

(58) **Field of Search** ..... **Plt./287, 289**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

P.P. 9,933 \* 6/1997 Fuess ..... Plt./287  
4,616,099 \* 10/1986 Sparkes ..... 47/58

**OTHER PUBLICATIONS**

Broertjes, et al., 1980, "A mutant of a mutant of a . . .  
Irradiation of progressive radiation-induced mutants in a

mutation breeding programme with *Chrysanthemum mori-*  
*folium*", Euphytica, 29:525-530.\*

Gosling, ed., 1979, "The Chrysanthemum Manual—6<sup>th</sup> edi-  
tion", 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.\*

Searle, 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

*Primary Examiner*—Howard J. Locker

(74) *Attorney, Agent, or Firm*—C. A. Whealy

(57) **ABSTRACT**

A distinct cultivar of Chrysanthemum plant named 'Golden  
Spotlight', characterized by its uniformly mounded plant  
habit; decorative-type inflorescences that are about 5.8 cm in  
diameter; attractive bright yellow ray florets reddish brown  
inflorescence center; and numerous inflorescences per plant.

**1 Drawing Sheet**

**1**

**BACKGROUND OF THE INVENTION**

The present invention relates to a new and distinct cultivar  
of Chrysanthemum plant, botanically known as *Dendran-*  
*thema grandiflora* and referred to by the cultivar name  
Golden Spotlight.

The new cultivar is a product of a mutation induction  
breeding program conducted by the inventor in Fort Myers,  
Fla., and Salinas, Calif. The objective of the breeding  
program is to create new garden-type Chrysanthemum cul-  
tivars having with desirable inflorescence form and color  
and good garden performance.

The new cultivar originated by exposing unrooted cut-  
tings of the Chrysanthemum cultivar Empire Spotlight (dis-  
closed in U.S. Plant Pat. No. 9,933) to X-ray radiation at a  
level of 2,000 rads in November, 1994. 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 cultivar Golden Spotlight was discov-  
ered and selected by the inventor as a single flowering plant  
within this population in June, 1995. The selection of this  
plant was based on its desirable ray floret color.

Asexual reproduction of the new cultivar by terminal  
cuttings taken in a controlled environment in Salinas,  
Calif., has shown that the unique features of this new

**2**

Chrysanthemum are stable and reproduced true as type in  
successive generations.

**SUMMARY OF THE INVENTION**

The cultivar Golden Spotlight 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 'Golden  
Spotlight'. These characteristics in combination distinguish  
'Golden Spotlight' as a new and distinct cultivar:

1. Uniformly mounded plant habit.
2. Decorative-type inflorescences that are about 5.8 cm in  
diameter.
3. Attractive bright yellow ray florets.
4. Reddish brown inflorescence center.
5. Numerous inflorescences per plant.

Plants of the new Chrysanthemum can be compared to  
plants of the parent cultivar Empire Spotlight. However, in  
side-by-side comparisons conducted by the Inventor under  
commerical practice, plants of the new Chrysanthemum  
differed from plants of the cultivar Empire Spotlight in the  
following characteristics:

1. Plants of the new Chrysanthemum are more compact  
than plants of the cultivar Empire Spotlight.



2. Plants of the new Chrysanthemum flower later plants of the cultivar Empire Spotlight.
3. Ray floret color of plants of the new Chrysanthemum is initially reddish brown becoming yellow whereas ray floret color of plants of the cultivar Empire Spotlight is pink.
4. Apical ray floret color of plants of the new Chrysanthemum becomes purple earlier than apical ray floret color of plants of Empire Spotlight.

#### BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs illustrate the overall appearance of the new cultivar.

The photograph at the top of the sheet comprises a side perspective view of a typical flowering plant of 'Golden Spotlight'.

The photograph at the bottom of the sheet comprises a close-up view of typical fully developed inflorescences of the cultivar 'Golden Spotlight'. These photographs show the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Floret and foliage colors in the photographs may differ from the actual colors due to light reflectance.

#### 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 in Leamington, Ontario, Canada, under conditions which approximate those generally used in commercial garden Chrysanthemum production. One rooted cutting was planted in a 15-cm container on Jul. 20, 1998 and plants were grown outdoors under natural season conditions. Measurements and numerical values represent averages for typical flowering containers.

Botanical classification: *Dendranthema grandiflora* cultivar Golden Spotlight.

Commercial classification: Decorative-type garden chrysanthemum.

Parentage: Induced mutation of *Dendranthema grandiflora* cultivar Empire Spotlight, disclosed in U.S. Plant Pat. No. 9,933.

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*.—Perennial herbaceous decorative-type garden Chrysanthemum. Inverted triangle. Stems initially upright, then outwardly spreading giving a uniformly mounded appearance to the plant. Freely branching with lateral branches potentially developing at every node, when pinched, about 8 laterals develop.

*Plant height*.—About 31 cm.

*Plant spread*.—About 37 cm.

*Foliage description*.—Leaf arrangement: Alternate. Length: About 6.1 cm. Width: About 4.3 cm. Apex: Mucronate. Base: Attenuate. Margin: Palmately lobed, sinuses typically divergent. Texture: Upper surface sparsely pubescent; lower surface slightly to moderately pubescent. Veins prominent on lower surface. Petiole length: About 1.2 cm. Petiole diameter: About 3 mm. Color: Young foliage upper surface: 147A. Young foliage lower surface: 147B. Mature foliage upper surface: 147A. Mature foliage lower surface: 147B. Venation upper surface: 147B. Venation lower surface: 147B.

Inflorescence description:

*Appearance*.—Decorative-type inflorescence form with oblong-shaped ray florets. Inflorescences borne on terminals above foliage, arising from leaf axils. Disk and ray florets arrange acropetally on a capitulum. One inflorescence per terminal with numerous inflorescences per plant, about 8 per lateral stem.

*Flowering response*.—Under natural season conditions, plants flower in late September in the Northern Hemisphere, about 72 days after planting, and flower for at least three weeks depending on weather conditions.

*Inflorescence bud (before showing color)*.—Height: About 4.5 mm. Diameter: About 7.5 mm. Phyllary color: Close to 141A.

*Inflorescence size*.—Diameter: About 5.8 cm. Depth (height): About 1.7 cm.

*Ray florets*.—Shape: Oblong, elongated flat. Length: About 2.75 cm. Width: About 7 mm. Apex: Dentate. Margin: Entire. Texture: Smooth, glabrous, satiny. Orientation: Initially upright, then horizontal. Number of ray florets per inflorescence: More than 100. Color: When opening: Upper surface: 9A; apex, reddish brown, close to 166A to 183A. Lower surface: Close to 9C. Opened inflorescence: Upper surface: Initially 9A; becoming 9B to 9C with development, fading to 9D with purple apices. Lower surface: 9C to 9D.

*Disc florets*.—None observed.

*Peduncle*.—Aspect: Flexible, angled about 35° to the stem. Length: First peduncle: About 5.9 cm. Fourth peduncle: About 7.3 cm. Diameter: About 2.5 mm. Texture: Pubescent. Color: Close to 143A.

*Reproductive organs*.—Androecium: Not observed. Gynoecium: Present on ray florets.

Disease resistance: Resistance to known Chrysanthemum diseases has not been observed on plants grown under commercial production conditions.

Seed production: Seed production has not been observed.

It is claimed:

1. A new and distinct cultivar of Chrysanthemum plant named 'Golden Spotlight', as illustrated and described.

\* \* \* \* \*



