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Smith

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(54) ***CHRYSANTHEMUM* PLANT NAMED 'CIFZ0099'**

(50) Latin Name: ***Chrysanthemum* x *morifolium***
Varietal Denomination: **CIFZ0099**

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(52) **U.S. Cl.**
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(58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**

A new garden type *Chrysanthemum* plant named 'CIFZ0099' particularly distinguished by its small to medium size plant with round plant habit, a medium to large size semi double flower, a yellow flower color with somewhat quilled petals, and a natural season response in mid to late September.

1 Drawing Sheet

Latin name of the genus and species of the plant claimed: *Chrysanthemum* x *morifolium.*

Varietal denomination: 'CIFZ0099'.

BACKGROUND OF THE NEW PLANT

The present invention comprises a new *Chrysanthemum*, botanically known as *Chrysanthemum* x *morifolium*, and hereinafter referred to by the variety name 'CIFZ0099'.

'CIFZ0099' is a product of a planned breeding program. The new cultivar has a small to medium size plant with round plant habit, a medium to large size semi double flower with somewhat quilled petals and yellow flower color, and a natural season response in mid to late September.

'CIFZ0099' originated from a cross made in November 2017 in Enkhuizen, The Netherlands. Seeds were sown in June 2018 in Gilroy, California and 'CIFZ0099' was selected from the resulting population on Oct. 26, 2018 in Alva, Florida.

The female parent was an unnamed proprietary seedling '13-M237', not patented.

TABLE 1

Characteristics of the female parent, compared to 'CIFZ0099':

	'CIFZ0099'	'13-M237'
Natural response:	2.5 weeks slower	2.5 weeks faster
Blackcloth response:	Similar	Similar
Flower size:	Smaller	Larger
Flower color:	Similar	Similar
Flower type:	Similar	Similar
Plant size:	Larger overall	Smaller overall
Plant habit:	Similar	Similar
Flower longevity:	Similar	Similar
Flowering uniformity:	More uniform	Less uniform

The male parent was an unnamed proprietary seedling '14-M539', not patented.

TABLE 2

Characteristics of the male parent, compared to 'CIFZ0099':

	'CIFZ0099'	'14-M539'
Natural response:	2 weeks slower	2 weeks faster
Blackcloth response:	¼ week faster	¼ week slower
Flower size:	Similar	Similar
Flower color:	Yellow	Pink/White bicolor
Flower type:	Less disc florets	More disc florets
Plant size:	Similar	Similar
Plant habit:	More spread	Less spread
Flower longevity:	Similar	Similar
Flowering uniformity:	More uniform	Less uniform

The first act of asexual reproduction of 'CIFZ0099' was accomplished when vegetative stem cuttings were propagated from the initial selection in January 2019 in Alva, Florida.

BRIEF SUMMARY OF INVENTION

Horticultural examination of plants grown from cuttings of the plant initiated in January 2019 and continuing thereafter, has demonstrated that the combination of characteristics as herein disclosed for 'CIFZ0099' are firmly fixed and are retained through successive generations of asexual reproduction.

'CIFZ0099' 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.

A Plant Breeder's Right for this cultivar has not yet been applied for. 'CIFZ0099' has not been made publicly available prior to the effective filing date of this application, notwithstanding any disclosure that may have been made less than one year prior to the effective filing date of this application by the inventor or another who obtained 'CIFZ0099' directly from the inventor.

The following traits have been repeatedly observed and are determined to be basic characteristics of the new variety. The combination of these characteristics distinguishes this *Chrysanthemum* as a new and distinct variety.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographic drawings show typical flower and foliage characteristics of 'CIFZ0099' with colors being as true as possible with an illustration of this type.

The photographic drawings show in FIG. **1** a close view of flower of the new variety and in FIG. **2** a flowering plant from an outdoor trial.

The aforementioned photographs: FIG. **1**, as well as FIG. **2**, were taken on Sep. 5, 2022 both showing a plant from the same blackcloth outdoor trial in Enkhuizen, The Netherlands.

These plants were about 13 weeks of age. One rooted cutting per pot had been planted in a 19 cm pot, not pinched in week 23, 2022 and black clothed from week 29. Plants started flowering the end of August 2022.

The measurements were taken in Enkhuizen, The Netherlands, in September 2022 on plants from the same outdoor blackcloth trial.

DETAILED BOTANICAL DESCRIPTION

Color references are made to The Royal Horticultural Society Colour Chart (R.H.S.) 2001.

TABLE 3

DIFFERENCES BETWEEN THE NEW VARIETY 'CIFZ0099' AND TWO MOST SIMILAR VARIETIES:

	CIFZ0099	'Synwil Yel', U.S. Plant Pat. No. 22,660
Natural response:	1 week faster	1 week slower
Blackcloth response:	Similar	Similar
Flower color:	Darker yellow	Lighter yellow
Flower type:	Similar but with quilled petals	Similar but with un-quilled petals
Flowering uniformity:	More uniform	Less uniform

TABLE 4

	'CIFZ0099'	'Zinger Yellow', Not patented
Natural response:	Similar	Similar
Blackcloth response:	½ week faster	½ week slower
Flower size:	Larger	Smaller
Flower color:	Bit darker yellow	Bit lighter yellow
Flower type:	Similar but with quilled petals	Similar but with un-quilled petals
Plant size:	Smaller	Larger
Plant habit:	Similar	Similar
Plant strength:	Stronger	Weaker

Plant:

Form, growth and habit.—Herbaceous garden-type, stems Upright and outwardly spreading, freely branching, medium vigorous growth habit.

Plant height (*above soil*).—22 cm.

Plant height (*inflorescence included*).—25 cm.

Plant width.—42 cm.

Roots:

Number of days to initiate roots.—About 4 days at about 22° C.

Number of days to produce a rooted cutting.—14-16 days at 22° C.

Type.—Fine, fibrous, free branching.

Color.—RHS N155B.

Foliage:

Arrangement.—Alternate.

Immature leaf, color upper surface.—RHS 147A.

Immature leaf, color lower surface.—RHS 137B.

Mature leaf, color, upper surface.—RHS 139A.

Mature leaf, color lower surface.—RHS 137B.

Length.—4.5 cm.

Width.—3.5 cm.

Shape.—Ovate, with distinct lobes.

Base shape.—Shortly Attenuate.

Apex shape.—apiculate.

Margin.—5 lobed.

Number of margin indentations.—12-14.

Depth of margin indentations.—2 mm.

Leaf length terminal lobe relative to total leaf length.—1:3.

Leaf depth lower lateral sinus.—0.6 cm.

Texture, upper surface.—Bifid hairs.

Texture, lower surface.—Bifid hairs.

Color of veins, upper surface.—RHS 137B.

Color of veins, lower surface.—RHS 137B.

Pattern of veining.—Palmate.

Petiole color.—RHS 137B.

Petiole Length.—1.5-2.0 cm.

Diameter.—0.2 cm.

Texture.—Bifid hairs.

Presence of stipules.—Yes.

If present, size of stipules.—0.2×0.2 cm.

Color of stipule.—RHS 139B.

Stem:

Quantity of main branches per plant.—6-8.

Color of stem.—RHS 146B.

Length of stem.—7.0-8.0 cm.

Diameter.—0.4 cm.

Length of internodes.—1.0-1.5 cm.

Texture.—Bifid hairs.

Color of peduncle.—RHS 146C.

Length of peduncle.—3.0-4.0 cm.

Peduncle diameter.—0.3 cm.

Texture.—Bifid hairs.

Inflorescence:

Type.—Compositae, solitary, daisy to duplex type inflorescences borne terminally above foliage, quilled ray florets with ligulate apex arranged in whorls on a capitulum giving a semi-double flower.

Quantity of short days to flowering (*response time*).—Approximately 6.5 weeks.

Quantity of inflorescences per plant.—90-110 with several small buds developing.

Lastingness of individual blooms on the plant.—About 6.5 weeks from first color.

Fragrance.—Slightly spicy.

Bud (when showing color):

Color.—RHS 9B.

Length.—0.7 cm.

Width.—0.6 cm.

Shape.—Oblate.

Immature inflorescence (at moment of opening):
Diameter.—2.5 cm.
Color of ray florets, upper surface.—RHS 9A.
Color of ray florets, lower surface.—RHS 9B.
Mature inflorescence:
Diameter.—3.8 cm.
Depth.—1.6 cm.
Total diameter of disc.—0.9 cm.
Receptacle color.—RHS 147B.
Receptacle height.—0.6 cm.
Receptacle diameter.—0.9 cm.
Length of corolla tube 1.2-1.4 cm.
Ray florets:
Average quantity of florets.—60-70.
Color of florets, upper surface.—RHS 9B.
Color lower surface.—RHS 9A.
Length.—1.9 cm.
Width/diameter.—0.3 cm.
Shape.—Oblanceolate.
Apex shape.—Dentate.
Base shape.—Tube.
Margin.—Entire. — Small incisions may be present at tip.
Margin.—Type of rolling — Strongly involute.
Texture, upper surface.—Papillate.
Lower surface.—Papillate.
Ribs present.—Yes.
Number of keels.—2.
Profile at widest point.—Circular.
Longitudinal axis shape.—Straight.
Longitudinal axis curvature strength.—Medium.
Corolla tube shape.—Circular.
Disc florets:
Number of disc florets.—Approximately 70.
Width.—0.1 cm.
Length.—0.9 cm.
Color.—RHS 14A.
Inflorescence (at moment of senescence):
Color of ray florets, upper surface.—RHS 9A.
Color of ray florets, lower surface.—RHS 9C.
Phyllaries:
Quantity.—16-18.
Color, upper surface.—RHS 147B.
Color, lower surface.—RHS 137B.
Length.—0.6 cm.
Width.—0.2 cm.
Shape.—Lanceolate.
Apex shape.—Acute.
Base.—Fused.
Margins.—Entire.
Texture, upper surface.—Glabrous.
Texture, lower surface.—Canescent.
Reproductive organs:
Pistil.—One.
Length.—0.4 cm.
Style color.—RHS 157D.
Style length.—0.3 cm.
Stigma color.—RHS 5D.
Stigma shape.—Bi-parted.
Ovary color.—RHS 157D.
Ovary length.—0.2 cm.
Ovary width.—0.1 cm.
Androecium:
Stamens.—1, found on only disc florets.
Color of filaments.—RHS 157C.
Length filaments.—0.2 cm.
Anther color.—RHS 15A.
Anther length.—0.2 cm.
Anther shape.—Oval to club shaped.
Color of pollen.—RHS 15A.
Pollen amount.—Moderate.
Fertility/seed set.—Has not been determined to date.
Disease/pest resistance.—Has not been determined to date.
Hardiness.—Has not been determined to date.

What is claimed is:

1. A new and distinct variety of *Chrysanthemum* plant named 'CIFZ0099' substantially as illustrated and described herein.

* * * * *

FIG. 1

FIG. 2