



US00PP36062P2

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

(10) **Patent No.:** **US PP36,062 P2**

(45) **Date of Patent:** **Aug. 6, 2024**

(54) **CHRYSANTHEMUM PLANT NAMED**  
**'CIFZ0104'**

(50) Latin Name: *Chrysanthemum x morifolium*  
Varietal Denomination: **CIFZ0104**

(71) Applicant: **SYNGENTA CROP PROTECTION**  
**AG, Basel (CH)**

(72) Inventor: **Mark A. Smith, Alva, FL (US)**

(73) Assignee: **Syngenta Crop Protection AG, Basel**  
**(CH)**

(\* ) 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.: **18/109,320**

(22) Filed: **Feb. 14, 2023**

(51) **Int. Cl.**  
*A01H 5/02* (2018.01)  
*A01H 6/14* (2018.01)

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

(58) **Field of Classification Search**  
USPC ..... **Plt./286, 287, 289**  
See application file for complete search history.

*Primary Examiner* — Susan McCormick Ewoldt

*Assistant Examiner* — Zachariah Allan Kay

(74) *Attorney, Agent, or Firm* — Dale Skalla

(57) **ABSTRACT**

A new garden type *Chrysanthemum* plant named  
'CIFZ0104' particularly distinguished by its large size plant  
with mounding plant habit, a medium size decorative flower,  
a yellow flower color and a natural season response in early  
October.

**1 Drawing Sheet**

**1**

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

Varietal denomination: 'CIFZ0104'.

**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 'CIFZ0104'.

'CIFZ0104' is a product of a planned breeding program.  
The new cultivar has large size plant with mounding plant  
habit, a medium size decorative flower, a yellow flower  
color and a natural season response in early October.

'CIFZ0104' originated from a mutation and was selected  
on Mar. 20, 2020 in Alva, Florida.

The cuttings parent was an unnamed proprietary seedling  
'FC0116', not patented.

**TABLE 1**

Characteristics of the female parent, compared to 'CIFZ0104':		
	'CIFZ0104'	'FC0116'
Natural response:	2 days faster	2 days slower
Blackcloth response:	2 days faster	2 days slower
Flower color:	Yellow	Pink/Lavender

As the new variety is the result of mutating a cutting, there  
is not a male parent.

The first act of asexual reproduction of 'CIFZ0104' was  
accomplished when vegetative stem cuttings were propa-  
gated from the initial selection in May 2020 in Alva, Florida.

**BRIEF SUMMARY OF INVENTION**

Horticultural examination of plants grown from cuttings  
of the plant initiated in May 2020 and continuing thereafter,  
has demonstrated that the combination of characteristics as

**2**

herein disclosed for 'CIFZ0104' are firmly fixed and are  
retained through successive generations of asexual repro-  
duction.

'CIFZ0104' has not been observed under all possible  
environmental conditions. The phenotype may vary signifi-  
cantly 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. 'CIFZ0104' has not been made publicly avail-  
able 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  
'CIFZ0104' 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 'CIFZ0104' 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 indoor blackcloth 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 Neth-  
erlands, in September 2022 on plants from the same indoor  
blackcloth trial.

**DETAILED BOTANICAL DESCRIPTION**

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

TABLE 2

DIFFERENCES BETWEEN THE NEW VARIETY 'CIFZ0104' AND TWO MOST SIMILAR VARIETIES:		
	'CIFZ0104'	'CIFZ0052', U.S. Plant Pat. No. 29,537
Natural response:	½ week faster in warm nights	½ week slower in warm nights
Blackcloth response:	3 days faster	3 days slower
Flower size:	25% larger	25% smaller
Plant size:	8% wider	8% thinner

TABLE 3

	'CIFZ0104'	'Amiko Yellow', U.S. Plant Pat. No. 23,765
Natural response:	Similar but ½ week faster in Florida	Similar but ½ week slower in Florida
Blackcloth response:	Almost 1 wk faster	Almost 1 wk slower
Flower size:	10% smaller	10% larger
Plant size:	10% taller	10% shorter

## Plant:

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

*Plant height (above soil).*—22 cm.

*Plant height (inflorescence included).*—24 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 137A.

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

*Mature leaf, color, upper surface.*—RHS 137A.

*Mature leaf, color lower surface.*—RHS 137C.

*Length.*—6.0 cm.

*Width.*—4.4 cm.

*Shape.*—Ovate, with distinct lobes.

*Base shape.*—Attenuate.

*Apex shape.*—Apiculate.

*Margins.*—3-5 lobes.

*Number of margin indentations.*—6-9.

*Depth of margin indentations.*—2-5 mm.

*Leaf length terminal lobe relative to total leaf length.*—1:2.5.

*Leaf depth lower lateral sinus.*—1.6 cm.

*Texture, upper surface.*—Bifid hairs.

*Texture, lower surface.*—Bifid hairs.

*Color of veins, upper surface.*—RHS 137C.

*Color of veins, lower surface.*—RHS 137C.

*Pattern of veining.*—Palmate.

*Petiole color.*—RHS 137C.

*Petiole length.*—1.8-2.5 cm.

*Diameter.*—0.2 cm.

*Texture.*—Bifid hairs.

*Presence of stipules.*—No.

## Stem:

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

*Color of stem.*—RHS 138B.

*Length of stem.*—13.0-15.0 cm.

*Diameter.*—0.3 cm.

*Length of internodes.*—1.0-1.5 cm.

*Texture.*—Bifid hairs.

*Color of peduncle.*—RHS 138B.

*Length of peduncle.*—3.0-3.5 cm.

*Peduncle diameter.*—0.2 cm.

*Texture.*—Bifid hairs.

## Inflorescence:

*Type.*—Compositae, solitary, decorative inflorescences borne terminally above foliage, ligulate ray florets arranged in whorls on a capitulum giving a double flower.

*Quantity of short days to flowering (response time).*—45 days.

*Quantity of inflorescences per plant.*—About 85 with several small buds developing.

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

*Fragrance.*—Slightly spicy.

## 25 Bud (when showing color):

*Color.*—RHS 9B.

*Length.*—0.6 cm.

*Width.*—0.5 cm.

*Shape.*—Oblate.

## 30 Immature inflorescence (at moment of opening):

*Diameter.*—2.5 cm.

*Color of ray florets, upper surface.*—RHS 12A.

*Color of ray florets, lower surface.*—RHS 8C.

## 35 Mature inflorescence:

*Diameter.*—5-5.5 cm.

*Depth.*—1.6 cm.

*Total diameter of disc.*—0.2-0.4 cm.

*Receptacle color.*—RHS 147B.

## 40 Receptacle height.—0.3 cm.

*Receptacle diameter.*—1.1 cm.

*Length of corolla tube.*—0.1 cm.

## Ray florets:

*Average quantity of florets.*—70-90.

*Color of florets, upper surface.*—RHS 12A.

*Color lower surface.*—RHS 12C.

*Length.*—1.4 cm.

*Width/diameter.*—0.5 cm.

*Shape.*—Elliptical.

## 50 Apex shape.—Dentate.

*Base shape.*—Tube.

*Margin.*—Entire. Small incisions may be present at tip.

*Margin: type of rolling.*—Moderately involute.

*Texture, upper surface.*—Papillate.

## 55 Lower surface.—Papillate.

*Ribs present.*—Yes.

*Number of keels.*—2.

*Profile at widest point.*—Flat.

*Longitudinal axis shape.*—Sinusoidal.

## 60 Longitudinal axis curvature strength.—Weak.

*Corolla tube shape.*—Circular.

## Disc florets:

*Number of disc florets.*—20-30.

*Width.*—0.1 cm.

## 65 Length.—1.0 cm.

*Color.*—RHS 14A.

Inflorescence (at moment of senescence):

*Color of ray florets, upper surface.*—RHS 12B.

*Color of ray florets, lower surface.*—RHS 8C.

Phyllaries:

*Quantity.*—16-20.

*Color, upper surface.*—RHS 147B.

*Color, lower surface.*—RHS 137A.

*Length.*—0.6-0.8 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 5C.

*Style length.*—0.3 cm.

*Stigma color.*—RHS 5C.

*Stigma shape.*—Bi-parted.

*Ovary color.*—RHS 157C.

*Ovary length.*—0.2 cm.

*Ovary width.*—0.1 cm.

Androecium:

5 *Stamens.*—1, found on only disc florets.

*Color of filaments.*—RHS 157C.

*Length filaments.*—0.2 cm.

*Anther color.*—RHS 14A.

*Anther length.*—0.2 cm.

10 *Anther shape.*—Oval to club shaped.

*Color of pollen.*—RHS 14A.

*Pollen amount.*—Sparse.

*Fertility/seed set.*—Has not been determined to date.

15 *Disease/pest resistance.*—Has not been determined to date.

*Hardiness.*—Has not been determined to date.

What is claimed is:

20 1. A new and distinct variety of *Chrysanthemum* plant named 'CIFZ0104' substantially as illustrated and described herein.

\* \* \* \* \*



FIG. 1



FIG. 2