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**van Kleinwee et al.**

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(54) **ARGYRANTHEMUM FRUTESCENS PLANT**  
**NAMED 'ARGYLEM'**

(51) **Int. Cl.**  
**A01H 5/00** (2006.01)

(50) Latin Name: *Argyranthemum frutescens*  
Varietal Denomination: **Argylem**

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See application file for complete search history.

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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 0 days.

(57) **ABSTRACT**

A new and distinct cultivar of *Argyranthemum frutescens*  
plant named 'Argylem' characterized by its compact and  
dense plant habit with short internodes and dark green  
foliage, and its early, rich and long flowering with lemon  
semi double anemone-like flowers.

(21) Appl. No.: **12/069,711**

**1 Drawing Sheet**

(22) Filed: **Feb. 12, 2008**

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Latin name of the genus and species of the plant claimed:  
*Argyranthemum frutescens*.  
Varietal denomination: 'Argylem'.

**BACKGROUND OF THE NEW PLANT**

The present invention relates to a new and distinct cultivar  
of Marguerite Daisy plant, botanically known as *Argyran-*  
*themum frutescens* and hereinafter referred to by the cultivar  
name 'Argylem.'

The new cultivar is a product of a planned breeding pro-  
gram conducted in Enkhuizen, Netherlands. The new culti-  
var 'Argylem' is characterized by its special flower shape,  
very floriferous habit and very compact plant habit with  
good branching.

The new *Argyranthemum* originates from an open pollina-  
tion conducted in Enkhuizen, Netherlands in 2003 of the  
*Argyranthemum frutescens* variety 'Argypri' (U.S. Ser. No.  
12/011,531) as the female, or seed, parent with pollen of  
unknown *Argyranthemum frutescens* plants as the male, or  
pollen, parent.

The cultivar 'Argylem' was discovered and selected as a  
single plant within the progeny of the stated open pollination  
in a controlled environment in Enkhuizen, Netherlands in  
August 2004. Asexual reproduction of the new *Argyranthe-*  
*mum* by terminal cuttings in a controlled environment in  
Enkhuizen, Netherlands since August 2004, has shown that  
the unique features of this new *Argyranthemum* are stable  
and reproduced true to type in successive generations.

**SUMMARY OF THE INVENTION**

The new *Argyranthemum* has not been observed under all  
possible environmental conditions. The phenotype may vary  
somewhat with variations in environment such as tempera-  
ture and light intensity without, however, any variance in  
genotype.

The following characteristics have been repeatedly  
observed and are determined to be basic characteristics of  
'Argylem' and distinguish to new *Argyranthemum* as a new  
and distinct cultivar:

1. Compact plant habit
2. Freely branching habit and short internodes; dense and  
bushy plant habit.
3. Early flowering habit
4. Freely flowering habit with numerous inflorescences  
per plant.
5. Dark green foliage
6. Semi double anemone-like flowers

Plants of the new *Argyranthemum* differ from plants of the  
female parent in the following characteristics:

1. Plants of the new *Argyranthemum* have a height of 20  
cm, whereas plants of the female parent have a height  
of 40 cm.
2. Plants of the new *Argyranthemum* have a width of 34  
cm, whereas plants of the female parent have a width of  
65 cm.
3. Plants of the new *Argyranthemum* have a flower diam-  
eter of 3.5–4 cm, whereas plants of the female parent  
have a flower diameter of 5–6 cm.

The difference of plants of the new *Argyranthemum* from  
plants of the male parent is unknown, as the male parent is  
unknown.

**TABLE 1**

**DIFFERENCES BETWEEN THE NEW CULTIVAR 'ARGYLEM'**  
**AND TWO SIMILAR CULTIVARS**

	'ARGYLEM'	'Summersong Primrose' (Not patented)	'ARGYPRI' (U.S. Ser. No.: 12/011,531)
Plant height	20 cm	32-38 cm	40 cm
Plant width	34 cm	40-50 cm	65 cm
Flower diameter	3.5-4 cm	3-3.5 cm	5-6 cm
Flower color	1D	2B	1D
Flower shape	Anemone	Double	Anemone
Peduncle length	8-14 cm	7-8 cm	7-9 cm

## DESCRIPTION OF THE PHOTOGRAPHS

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

## BOTANICAL DESCRIPTION OF THE PLANT

The aforementioned photographs, the following detailed observations and averaged measurements describe plants of this new Marguerite Daisy plant. The data were collected from plants from asexual reproductions carried out in Enkhuizen, Netherlands. The plant history was taken on 20 week old plants, grown in the open field in Enkhuizen, Netherlands with day temperatures ranging from 16 to 35° C., and night temperatures ranging from 10 to 20° C.

Color references are primarily to the R.H.S. Colour Chart of The Royal Horticultural Society, 1995 Edition, except where general terms of ordinary dictionary significance are used.

## The plant:

*Classification*.—Botanical: *Argyranthemum frutescens*.

## Parentage:

*Female parent*.—*Argyranthemum frutescens* variety 'ARGYPRI' (U.S. Ser. No. 12/011,531).

*Male parent*.—Unidentified plants of *Argyranthemum frutescens*.

## Propagation:

*Type of cutting*.—Terminal cuttings.

*Time to initiate roots*.—7–10 days at air temperature of 21° C.

*Time to develop roots*.—7–14 days at air temperature of 18° C.

*Root description*.—Fibrous, relatively fine, white in color.

*Rooting description*.—Freely branching, dense.

## Plant description:

*Growth habit*.—Compact; rounded shape.

*Plant height*.—About 20 cm.

*Vigor*.—Medium vigor.

*Spreading area of plant*.—About 34 cm.

*Strength*.—Strong.

*Branching character*.—Freely branching, plants do not require pinching.

*Crop time*.—About 9 weeks are required to produce a finished flowering plant in a 10.5 cm container from a well developed cutting.

## Lateral branch description:

*Length*.—20 cm.

*Diameter*.—3 mm.

*Shape*.—Round, slightly grooved.

*Anthocyanin pigmentation*.—Absent.

*Texture*.—Smooth, glabrous.

*Length of internode*.—1–1.5 cm.

*Pubescence*.—Absent.

*Color*.—144B.

## The foliage:

*Arrangement*.—Alternate, simple.

*Shape of leaf*.—Bipinnatisect.

*Leaf apex*.—Broadly acute.

*Leaf base*.—Attenuate, clasping.

*Margin*.—Deeply dissected, laciniate.

*Texture*.—Glabrous smooth.

*Length*.—4.5–5 cm.

*Width*.—2.5–3 cm.

*Depth of incision*.—Lancinate.

*Color*.—Upper side: 137A. Lower side: 137B; old leaf 137A.

*Pubescence*.—Absent.

*Petiole*.—Length: About 1–1.5 cm. Diameter: About 2 mm. Texture: Smooth, glabrous. Color: 137B.

*Venation*.—Shape: Pinnate. Color: 137A.

## The inflorescence:

*Appearance*.—Daisy-type inflorescences with ligulate ray florets. Disc and ray florets develop acropetally on a capitulum. Inflorescences held upright and outwardly on terminal and axillary peduncles. Inflorescences positioned perpendicular to the peduncles. Inflorescences persistent.

*Flowering response*.—Under natural conditions, plants flower continuously from spring to early fall.

*Inflorescence longevity*.—10 days.

*Quantity of inflorescences*.—Freely flowering, about 500 open inflorescences and inflorescence buds per plant.

## Flower bud:

*Peduncle*.—Length: 8–14 cm. Diameter: 1.5 mm. Strength: Strong. Aspect: Upright to slightly outward. Texture: Smooth, glabrous. Color: 138A.

*Inflorescence bud*.—Height: 4–5 mm. Diameter: 5 mm. Shape: Ovoid. Color: 199A.

## The inflorescence:

*Size*.—Diameter: 3.5–4 cm. Depth: About 1 cm.

*Disc diameter*.—About 1.7–2.3 cm.

*Flower type*.—Semi double flowered.

*Receptacle*.—Height: About 4 mm. Diameter: About 8 mm.

*Bracts*.—Number of bracts: 3 series of 5 bracts, tightly to receptacle. Shape: Elliptic. Apex: Broad. Base: Truncate. Texture: Smooth glabrous. Margin: Entire. Length: 3 mm. Width: 1 mm. Color upper side: N144C. Color lower side: 139B.

*Fragrance*.—Absent.

## Ray florets:

*Quantity per inflorescence*.—15–16 arranged in a single whorl.

*Shape*.—Ligulate, longitudinal incurved.

*Apex*.—Emarginate.

*Base*.—Attenuate.

*Margin*.—Entire.

*Color upper surface*.—1D.

*Color lower surface*.—4D.

*Length*.—1.5–1.7 cm.

*Width*.—0.3 cm.

*Texture*.—Smooth, glabrous; longitudinally ridged.

## Disc florets:

*Arrangement*.—Massed at the center of the inflorescence.

*Shape*.—Tubular, elongated, five-pointed; fused at base.

*Color*.—Immature: 3C. Mature: 1D.

*Diameter*.—Apex: 4 mm. Base: <1 mm.

*Length*.—8 mm.

*Quantity per inflorescence*.—Approximately 140.

*Androecium*.—Presence: Present only on disc florets. Stamen quantity per floret: 5. Anther length: About 1

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mm. Anther shape: Oval. Anther color: 21A. Pollen color: 21A. Amount of pollen: Very small.

*Gynoecium*.—Presence: Present on ray and disc florets.

Pistil number: One per floret. Pistil length: Approximately 3 mm. Style color: 144D. Style length: Approximately 1 mm. Stigma color: 14A. Stigma shape: Bilobed. Ovary color: 144C.

Seed and fruit development: Seed and fruit development has not been observed to date.

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Disease resistance: No disease/pest resistance has been observed to date.

Temperature/weather tolerance: Plants of the new *Argyranthemum* have been observed to be tolerant to rain, wind and to temperatures from 0° C. to 36° C.

What is claimed is:

1. A new and distinct variety of *Argyranthemum frutescens* plant, named 'Argylem,' substantially illustrated and described herein.

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