

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

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(54) **CALENDULA PLANT NAMED ‘SUMDEN 01’**

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(50) **Latin Name:** *Calendula maritima*  
**Varietal Denomination:** **Sumden 01**

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patent is extended or adjusted under 35  
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(57) **ABSTRACT**

A new and distinct Calendula plant having a compact habit,  
large flowers and dark colored leaves.

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**2 Drawing Sheets**

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Botanical classification: *Calendula maritima*.  
Varietal denomination: ‘Sumden 01’.

**BACKGROUND OF THE INVENTION**

The present invention comprises a new and distinct cul-  
tivar of Calendula plant known by the varietal name ‘Sum-  
den 01’. The new variety was discovered in March, 2001 in  
a selected breeding program Lüdinghausen, Germany. The  
purpose of the breeding program was to discover a compact  
Calendula variety having large flowers. The new variety  
originated as a single cultivar from a planned cross between  
Calendula No. 6 (female parent, unpatented) and Calendula  
No. 5 (male parent, unpatented). The new variety blooms  
exhibits similar flower color to both parents, however,  
‘Sumden 01’, is more compact, has a larger flower size, and  
darker leaves than both parents. In comparison to a wildtype  
Calendula, the new variety is more compact with shorter and  
darker colored leaves. The new variety is similar to the  
wildtype in that its growing habit starts as semi-erect and  
changes to hanging with age, the new variety exhibits  
smooth leaves, and ‘Sumden 01’ has a similar fragrance to  
the wildtype. The new variety was first asexually reproduced  
in July of 2001 by cuttings in a glasshouse in Lüdinghausen,  
Germany. The new variety has been trial and field tested in  
Germany and has been found to retain its distinctive char-  
acteristics and remains true to type through successive  
propagations.

The following traits distinguish ‘Sumden 01’ as a new and  
distinct cultivar:

1. Compact growth habit.
2. Short internode length (~20 mm).
3. Short leaves.
4. Dark colored leaves.
5. Large flower size compared to the wildtype.

**DESCRIPTION OF THE DRAWINGS**

The accompanying photographic drawings illustrates the  
new variety, with the color being as nearly true as is possible  
with color illustrations of this type:

FIG. 1 illustrates the new variety in the center of the  
photographic illustration; and

FIG. 2 is a close-up view of the new variety.

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**DESCRIPTION OF THE PLANT**

The data which defines these characteristics were col-  
lected by asexual reproductions by cuttings carried out in  
Lüdinghausen, Germany. Plants described were about 3  
months old. Plants were grown at temperatures of 14°  
Celsius in 10.5 cm pots. The new variety prefers 1.5 Kg of  
fertilizer per cubic meter of soil having a pH of approxi-  
mately 5.5. The color readings were taken under approxi-  
mately 4000–7000 foot candles of artificial light. Color  
references are primarily to The 2001 R.H.S. Colour Chart of  
The Royal Horticultural Society of London.

**PLANT**

Time to initiate roots: About 14 days at about 16° C.  
Time to develop roots: About 22 days (total) at about 16° C.  
Time to produce a finished flowering plant from a rooted  
cutting: About 8 weeks in a 10.5 cm container.

Height: 30 cm.

Plant diameter: 60 cm.

Vigor: Compact.

Branching habit: Semi-erect; hanging with age.

Stem:

*Diameter*.—8 mm.

*Color*.—145A.

*Texture*.—Smooth.

*Pubescence*.—Light.

*Form*.—6-cornered.

Lateral branches:

*Length*.—Primary: 30 cm. Secondary: 40 cm.

*Diameter*.—Primary: 8 mm. Secondary: 3 mm.

*Internode length*.—20 mm.

*Texture*.—Smooth.

*Pubescence*.—Light.

*Color*.—145A.

Foliage:

*Arrangement* (e.g., *alternate*, *single*).—Alternate.

*Size of leaf*.—Length: 70 mm. Width: 18–20 mm.

*Shape of leaf* (generally).—Lanceolate.

*Shape of apex*.—Obtuse.

*Shape of base*.—Obtuse.

*Margin type*.—Some leaf margins are crenate; most are  
entire.

*Pubescence*.—Upper surface: Light. Lower surface:  
Light.

*Color*.—Young leaves: Upper surface: 139A. Lower surface: 137B. Mature leaves: Upper surface: 137A. Lower surface: 137C.

*Petiole*.—Shape: 3-cornered. Length: 5–10 mm. Diameter: 6 mm. Color: 145A.

*Veins*.—Venation type: Spreading, with a prominent main vein. Color: Upper surface: 145A. Lower surface: 146B.

#### INFLORESCENCE

Bud (described four days before opening):

*Shape*.—Globe-shaped, like a basket.

*Diameter*.—80 mm.

*Length*.—4 mm.

*Color*.—146B.

Natural flowering season: 'Sumden 01' flowers from Spring until Autumn.

Appearance:

*Form*.—Actinomorphic.

Inflorescence position: Terminal, on the top of the stem of the lateral branch.

Disc and ray floret arrangement: Acropetally on a capitulum.

Number of flowers per lateral branch: 20–30.

Lasting quality: The flowers of 'Sumden 01' last for 2–3 days upon opening. The flowers open only if the sun is shining.

Fragrance: The flowers have no fragrance, only the leaves are fragrant.

Disease resistance: Good resistance observed.

Temperature tolerance: Cold tolerance to 0° C.; Heat tolerance to 40° C.

Drought tolerance: Good drought tolerance, but the new variety performs better if watered.

Size:

*Diameter*.—50 mm.

*Height*.—10 mm.

*Diameter of disc*.—10 mm.

Ray florets:

*Length*.—20–22 mm.

*Width*.—2–3 mm.

*Shape*.—Lanceolate.

*Apex*.—Obtuse with two nodes.

*Base*.—Acute.

*Margin*.—Entire.

*Texture*.—Smooth.

*Number per inflorescence*.—27–28.

*Color*.—When opening: Upper surface: 7A. Lower surface: 8A. Fully opened: Upper surface: 7A. Lower surface: 8A.

Disc florets:

*Length*.—5 mm.

*Width*.—1 mm.

*Shape*.—Tubular.

*Number of lobes*.—5.

*Number per inflorescence*.—40.

*Color*.—Immature: 1A. Mature: 1A.

Phyllaries:

*Length*.—0.8–10 mm.

*Width*.—1 mm.

*Shape*.—Truncate.

*Apex*.—Acuminate.

*Margin*.—Strong; entire.

*Number per inflorescence*.—24.

*Arrangement*.—Slightly overlapped.

*Texture*.—Smooth.

Color:

*Upper surface*.—141A.

*Lower surface*.—141D.

Peduncle:

*Length*.—50 mm.

*Diameter*.—1.5 mm.

*Texture*.—Smooth.

*Color*.—137C.

#### REPRODUCTIVE ORGANS

Androecium (present on disc florets):

*Number (per flower)*.—40.

*Filament length*.—4 mm.

*Anthers*.—Shape: Tubular. Length: 2 mm. Color: 1A.

*Pollen*.—Color: 11B. Amount (generally): Plentiful.

Gynoecium (present on ray and disc florets):

*Pistils*.—Number: 25. Length: 3 mm. Style: Length: 2 mm. Color: 1A. Stigma: Shape: Fused. Color: 6A.

Seeds:

*When produced*.—In dry weather.

*Color*.—N167A.

*Length*.—Approximately 10–12 mm.

*Width*.—2 mm.

*Number*.—6–8 pieces.

I claim:

1. A new and distinct variety of Calendula plant, substantially as shown and described.

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Fig. 1





Fig. 2