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**Vlieland**

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(54) **KALANCHOE PLANT NAMED 'LEONARDO'**

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patent is extended or adjusted under 35  
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(58) **Field of Search** ..... **Plt./338, 339, 341**

(56) **References Cited**

**PUBLICATIONS**

UPOV ROM GTITM Computer Database, GTI JOUVE  
Retrieval software 2002/02, citation(s) for 'Leonardo'.\*

\* cited by examiner

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(57) **ABSTRACT**

A new and distinct cultivar of Kalanchoe plant named  
'Leonardo', characterized by its numerous double red  
purple-colored flowers; upright, uniform and compact plant  
habit; freely branching growth habit; dark green glossy  
leaves; early flowering; and excellent postproduction lon-  
gevity.

**1 Drawing Sheet**

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**BOTANICAL CLASSIFICATION/CULTIVAR  
DESIGNATION**

*Kalanchoe blossfeldiana* cultivar Leonardo.

**BACKGROUND OF THE INVENTION**

The present invention relates to a new and distinct cultivar  
of Kalanchoe plant, botanically known as *Kalanchoe*  
*blossfeldiana*, and hereinafter referred to by the name  
'Leonardo'.

The new Kalanchoe is a naturally-occurring whole plant  
mutation of the *Kalanchoe blossfeldiana* cultivar Bromo,  
not patented. The cultivar Leonardo was discovered and  
selected in March, 1999 as a flowering plant within a  
population of plants of the cultivar Bromo in a controlled  
environment in Svegin, Sweden.

Asexual reproduction of the new Kalanchoe by terminal  
vegetative cuttings taken at De Lier, The Netherlands, since  
2000 has shown that the unique features of this new Kal-  
anchoe are stable and reproduced true to type in successive  
generations.

**BRIEF SUMMARY OF THE INVENTION**

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

1. Numerous double red purple-colored flowers.
2. Upright, uniform and compact plant habit.
3. Freely branching growth habit.
4. Dark green glossy leaves.
5. Early flowering.
6. Excellent postproduction longevity.

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Plants of the new Kalanchoe are most similar to plants of  
the parent, the cultivar Bromo. However, plants of the new  
Kalanchoe differ from plants of the cultivar Bromo primarily  
in flower form as plants of the new Kalanchoe have double  
flowers with more than one row of petals per flower whereas  
plants of the cultivar Bromo have single flowers with one  
row of four petals per flower.

**BRIEF DESCRIPTION OF THE PHOTOGRAPH**

The accompanying colored photograph illustrates the  
overall appearance of the new Kalanchoe, 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 Kalanchoe. The photograph comprises a side per-  
spective view of a typical potted plant of 'Leonardo'.

**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.  
Plants used for the aforementioned photograph and for the  
description were grown during the spring in De Lier, The  
Netherlands, in a glass-covered greenhouse. During the  
production of the plants, day temperatures ranged from 19 to  
26° C.; night temperatures ranged from 20 to 21° C.; and  
light levels ranged from 10,000 to 50,000 lux. Unrooted  
cuttings were directly stuck in 12.5-cm containers and  
received long day/short night conditions (more than 14  
hours of light) for about three weeks; plants then received  
photoinductive short day/long night conditions (minimum  
14 hours darkness) until flowering. Plants were about 14  
weeks old from an unrooted cutting when the photograph  
and the description were taken.

Botanical classification: *Kalanchoe blossfeldiana* cultivar  
Leonardo.

Parentage: Naturally-occurring whole plant mutation of *Kalanchoe blossfeldiana* cultivar Bromo, not patented.

Propagation:

*Type cutting.*—Terminal vegetative cuttings.

*Time to initiate roots.*—Summer: About 10 days at 21° C. Winter: About 14 days at 21° C.

*Time to produce a rooted cutting.*—Summer: About 21 days at 21° C. Winter: About 28 days at 21° C.

*Root description.*—Numerous, fine, fibrous, and well-branched.

Plant description:

*Form.*—Upright and uniform plant habit. Very freely flowering with numerous compound cymes. Inverted triangle with rounded crown. Appropriate for 10 to 15-cm containers.

*Crop time.*—About 11 to 14 weeks: three to four weeks under long day/short night conditions followed by eight to ten weeks of short day/long night conditions. Moderate growth rate.

*Plant height at flowering.*—About 17 cm.

*Plant diameter at flowering.*—About 16 cm.

*Branching habit.*—Freely branching; typically seven to eight lateral branches develop per plant. Pinching (removal of terminal apex) is not required but will enhance lateral branch development.

*Lateral branch description.*—Length: About 11 to 15 cm. Diameter: About 2 to 5 cm. Internode length: About 2 to 3 cm. Aspect: Erect. Strength: Moderately strong. Texture: Smooth, glabrous. Color: 147A.

*Foliage description.*—Leaves simple, opposite, generally symmetrical. Quantity per plant: About 8 to 13 mature leaves and 14 to 22 generative leaves. Length: About 10 cm. Width: About 7.5 cm. Shape: Ovate to elliptic. Apex: Obtuse. Base: Acute. Margin: Slightly crenate. Texture: Leathery, glabrous and succulent. Color: Developing and fully expanded leaves, upper surface: 147A; glossy. Developing and fully expanded leaves, lower surface: 147B. Venation, upper surface: 147A to 147B. Venation, lower surface: 147B. Petiole length: About 1.5 cm. Petiole diameter: About 4 mm by 8 mm. Petiole color: Upper surface: 147A to 147B. Lower surface: 147B.

Flower description:

*Flower type and habit.*—Double flowers arranged in compound dichasial cymes that arise from leaf axils. Freely flowering; more than 25 open flowers per lateral branch and more than 150 open flowers per plant. Flowering continuously for at least seven weeks. Flowers persistent. Flowers not fragrant.

*Natural flowering season.*—Plants of the new *Kalanchoe* initiate and develop flowers under short day/long night conditions or during the late autumn/winter/early spring. Flower initiation and development can also be induced under artificial

short day/long night conditions (at least 14 hours of darkness).

*Time to flower.*—Under short day/long night photoinductive conditions, about eight to ten weeks are required. Actual time to flower is primarily dependent upon temperature and light intensity.

*Post-production longevity.*—Excellent post-production longevity; plants maintain good foliage and flower substance for about 53 days under interior environmental conditions. Individual flowers last about 22 days on the plant.

*Flower diameter.*—About 1.9 cm.

*Flower height.*—About 1.3 cm.

*Flower buds.*—Shape: Initially oblong, becoming tubular ovoid with development. Length: About 1.3 cm. Width: About 6 mm. Color: Initially, 138C, then 63D with development.

*Petals.*—Quantity: About 26 to 32 per flower arranged in three to five rows. Length: About 8 mm. Width: About 6 mm. Aspect: Flat to slightly upright. Shape: Ovate. Apex: Acute. Margin: Entire. Texture: Glabrous, smooth. Color: When opening and fully opened, upper surface: 66A; color does not fade with subsequent development. When opening and fully opened, lower surface: 65D.

*Sepals.*—Quantity: Four fused at base. Length: About 5 mm. Width: About 2 mm. Aspect: Erect. Shape: Oblong. Apex: Acute. Base: Obtuse to rounded. Margin: Entire. Texture: Glabrous, smooth. Color, upper and lower surfaces: 138D.

*Peduncles.*—Length: About 6 mm. Diameter: About 1 mm. Aspect: Erect. Strength: Strong, flexible. Texture: Smooth, leathery. Color: 138B.

*Reproductive organs.*—Stamens: Quantity per flower: Eight. Anther shape: Elliptic; flat. Anther size: About 0.3 mm. Anther color: Close to 150D. Pollen amount: Scarce. Pollen color: 12A. Pistils: Quantity per flower: Four. Style length: About 1 mm. Style color: 138D. Stigma shape: Flat, rounded. Stigma color: 8D. Ovary color: 138D.

*Seed.*—Length: About 0.1 mm. Diameter: About 0.05 mm. Color: Close to 166C.

*Disease/pest resistance:* Plants of the new *Kalanchoe* have not been observed to be resistant to pathogens and pests common to *Kalanchoes*.

*Temperature tolerance:* Plants of the new *Kalanchoe* have been observed to tolerate low temperatures of 12° C. and high temperatures of 35° C.

*Garden performance:* Plants of the new *Kalanchoe* have been observed to perform well in the garden and are tolerant to rain and wind.

It is claimed:

1. A new and distinct cultivar of *Kalanchoe* plant named 'Leonardo', as illustrated and described.

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