



US00PP19704P2

(12) **United States Plant Patent**
van der Knaap

(10) **Patent No.:** **US PP19,704 P2**
(45) **Date of Patent:** **Feb. 10, 2009**

(54) **KALANCHOE PLANT NAMED ‘DON ANGELO’**

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

(50) Latin Name: *Kalanchoe blossfeldiana*
Varietal Denomination: **Don Angelo**

(52) **U.S. Cl.** **Plt./335**
(58) **Field of Classification Search** **Plt./335**
See application file for complete search history.

(75) Inventor: **Leonardus Johannus Maria van der Knaap**, Naaldwijk (NL)

Primary Examiner—Annette H Para
(74) *Attorney, Agent, or Firm*—C. A. Whealy

(73) Assignee: **Knaap Licenties B.V.**, Naaldwijk (NL)

(57) **ABSTRACT**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

A new and distinct cultivar of *Kalanchoe* plant named, ‘Don Angelo’, characterized by its upright, uniform and vigorous growth habit; freely branching habit; dark green-colored leaves; uniform and freely flowering habit; double red purple-colored flowers; and excellent postproduction longevity.

(21) Appl. No.: **12/079,316**

(22) Filed: **Mar. 25, 2008**

2 Drawing Sheets

1

2

Botanical designation: *Kalanchoe blossfeldiana*.
Cultivar denomination: ‘DON ANGELO’.

Angelo’. These characteristics in combination distinguish ‘Don Angelo’ as a new and distinct cultivar of *Kalanchoe*:

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Kalanchoe*, botanically known as *Kalanchoe blossfeldiana*, and hereinafter referred to by the name ‘Don Angelo’.

1. Upright, uniform and vigorous growth habit.
2. Freely branching habit.
3. Dark green-colored leaves.
4. Uniform and freely flowering habit.
5. Double red purple-colored flowers.
6. Excellent postproduction longevity.

The new *Kalanchoe* is a product of a planned breeding program conducted by the Inventor in Naaldwijk, The Netherlands. The objective of the breeding program is to create new double-flowered *Kalanchoe* cultivars with attractive foliage and flower coloration.

Plants of the new *Kalanchoe* can be compared to plants of the female parent selection. Plants of the new *Kalanchoe* differ from plants of the female parent selection in the following characteristics:

The new *Kalanchoe* originated from a cross-pollination made by the Inventor in Naaldwijk, The Netherlands in March, 2005, of a proprietary selection of *Kalanchoe blossfeldiana* identified as code number 20010734-001, not patented, as the female, or seed parent with a proprietary selection of *Kalanchoe blossfeldiana* identified as code number 200408207-001, not patented, as the male, or pollen, parent. The cultivar Don Angelo was discovered and selected by the Inventor as a flowering plant from within the progeny of the stated cross-pollination in a controlled environment in Naaldwijk, The Netherlands in January, 2006.

1. Plants of the new *Kalanchoe* are larger than plants of the female parent selection.
2. Plants of the new *Kalanchoe* are more freely branching than plants of the female parent selection.
3. Plants of the new *Kalanchoe* have smaller leaves than plants of the female parent selection.
4. Plants of the new *Kalanchoe* and the female parent selection differ in flower color as plants of the female parent selection have white-colored flowers.

Asexual reproduction of the new *Kalanchoe* by vegetative terminal cuttings in a controlled environment in Naaldwijk, The Netherlands since 2006 has shown that the unique features of this new *Kalanchoe* are stable and reproduced true to type in successive generations.

Plants of the new *Kalanchoe* can also be compared to plants of the male parent selection. Plants of the new *Kalanchoe* differ from plants of the male parent selection in the following characteristics:

SUMMARY OF THE INVENTION

The cultivar Don Angelo has not been observed under all possible environmental conditions. The phenotype may vary somewhat with variations in environment and cultural practices such as temperature, daylength and light intensity without, however, any variance in genotype.

1. Plants of the new *Kalanchoe* are larger than plants of the male parent selection.
2. Plants of the new *Kalanchoe* have larger leaves than plants of the male parent selection.
3. Plants of the new *Kalanchoe* have double flowers whereas plants of the male parent selection have single flowers.
4. Plants of the new *Kalanchoe* and the male parent selection differ in flower color as plants of the male parent selection have orange-colored flowers.

The following traits have been repeatedly observed and are determined to be the unique characteristics of ‘Don

Plants of the new *Kalanchoe* can be compared to plants of the *Kalanchoe blossfeldiana* cultivar Don Juan, disclosed in U.S. Plant Pat. No. 17,576. In side-by-side comparisons con-

ducted in Naaldwijk, The Netherlands, plants of the new *Kalanchoe* differed from plants of the cultivar Don Juan in the following characteristics:

1. Plants of the new *Kalanchoe* were taller than plants of the cultivar Don Juan.
2. Plants of the new *Kalanchoe* had smaller leaves than plants of the cultivar Don Juan.
3. Flowers of plants of the new *Kalanchoe* had fewer petals than flowers of plants of the cultivar Don Juan.
4. Plants of the new *Kalanchoe* flowered earlier than plants of the cultivar Don Juan.
5. Flowers of plants of the new *Kalanchoe* were red purple in color whereas flowers of plants of the cultivar Don Juan were red in color.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate 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 photographs may differ slightly from the color values cited in the detailed botanical description which accurately describe the colors of the new *Kalanchoe*.

The photograph on the first sheet comprises a side perspective view of a typical flowering plant of 'Don Angelo' grown in a container.

The photograph at the top of the second sheet comprises a top perspective view of a typical flowering plant of 'Don Angelo'.

The photograph at the bottom of the second sheet is a close-up view of the upper and lower surfaces of typical leaves (left), a typical inflorescence (center) and a typical flower (left).

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations, measurements and values describe plants grown in Naaldwijk, The Netherlands in a glass-covered greenhouse during the winter and under conditions which closely approximate commercial production. During the production of the plants, day temperatures ranged from 20° C. to 25° C. night temperatures ranged from 18° C. to 22° C. and light levels ranged from about 5 kilolux to 60 kilolux. Plants grown in 12-cm containers received long day/short night conditions (more than 14 hours of light) for about four weeks; plants then received photoinductive short day/long night conditions (minimum 14 hours darkness) until flowering. Plants were about 14 weeks old when the photographs and the description were taken. In the detailed description, color references are made to The Royal Horticultural Society Colour Chart, 2001 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Kalanchoe blossfeldiana* cultivar Don Angelo.

Parentage:

Female, or seed parent.—Proprietary selection of *Kalanchoe blossfeldiana* identified as code number 20010734-001, not patented.

Male or pollen parent.—Proprietary selection of *Kalanchoe blossfeldiana* identified as code number 200408207-001, not patented.

Propagation:

Type.—By vegetative terminal cuttings.

Time to initiate roots, summer.—About ten days at temperatures of 21° C.

Time to initiate roots, winter.—About two weeks at temperatures of 21° C.

Time to produce a rooted young plant, summer.—About three weeks at temperatures of 21° C.

Time to produce a rooted young plant, winter.—About four weeks at temperatures of 21° C.

Root description.—Fine, fibrous; white in color.

Rooting habit.—Freely branching; dense.

Plant description:

Plant habit.—Upright, uniform and vigorous growth habit. Very freely flowering with numerous compound cymes. Inverted triangle with rounded crown. Appropriate for 10-cm to 13-cm containers.

Plant height at flowering.—About 20 cm.

Plant diameter at flowering.—About 25 cm to 30 cm.

Lateral branch description:

Branching habit.—Freely branching habit; usually about twelve lateral branches develop per plant.

Length.—About 12 cm to 18 cm.

Diameter.—About 1 cm.

Internode length.—About 1 cm.

Aspect.—Erect.

Strength.—Strong.

Texture.—Smooth, glabrous.

Color.—Close to 137C.

Foliage description:

Arrangement.—Opposite, simple; generally symmetrical.

Length, generative plant.—About 5 cm to 14 cm.

Width, generative plant.—About 3 cm to 9 cm.

Shape.—Ovate.

Apex.—Rounded.

Base.—Attenuate or truncate.

Margin.—Crenate.

Texture, upper and lower surfaces.—Glabrous, leathery; succulent.

Venation pattern.—Pinnate; reticulate.

Color.—Developing foliage, upper surface: Close to 137C. Developing foliage, lower surface: Close to 147B. Fully expanded foliage, upper surface: Close to 147A; venation, close to between 146A to 147A. Fully expanded foliage, lower surface: Close to 147B; venation, close to between 146B to 147B.

Petiole.—Length: About 1 cm to 3 cm. Diameter: About 4 mm to 9 mm. Texture, upper and lower surfaces: Smooth, glabrous. Color, upper surface: Close to 146B. Color, lower surface: Close to 144A to 144B.

Flower description:

Flower arrangement and habit.—Double flowers arranged singly in compound dichasial cymes that arise from leaf axils. Uniform and freely flowering habit with usually about eight to twelve flowers developing per inflorescence. 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 conditions (at least 14 hours of darkness).

Time to flower.—Under short day/long night photoinductive conditions, about 70 days are required. Actual time to flower is primarily dependent upon temperature and light intensity.

Post-production longevity.—Excellent post-production longevity; flowers maintain good substance for about six weeks under interior environmental conditions. Flowers persistent.

Inflorescence height.—About 2 cm to 3 cm.

Inflorescence diameter.—About 2 cm to 4 cm.

Flower diameter.—About 2 cm.

Flower length (height).—About 1.5 cm.

Flower bud.—Shape: Ovoid. Length: About 5 mm to 8 mm. Diameter: About 2 mm to 4 mm. Color: Close to 1D, becoming closer to 37C with development.

Petals.—Arrangement: About 20 fused at the base. Length (largest petals): About 1.2 cm to 1.8 cm. Width (largest petals): About 5 mm to 6 mm. Aspect: Slightly upright to eventually recurved. Shape: Spatulate. Apex: Apiculate. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous; satiny. Color: When opening, upper surface: Towards the apex, close to N57C; towards the base, close to N57D. When opening, lower surface: Close to 155C. Fully opened, upper surface: Close to N66B; color becoming closer to N66C with development. Fully opened, lower surface: Close to 65A to 65B; color becoming closer to 69B with development.

Sepals.—Appearance: Four fused at the base. Length: About 8 mm. Width: About 2 mm. Shape: Lanceolate. Apex: Acute. Margin: Entire. Texture, upper and lower surfaces: Smooth; glabrous. Color, upper and lower surfaces: Close to 144A.

Peduncles.—Length: About 7 cm. Diameter: About 2.5 mm to 4.5 mm. Aspect: Mostly erect. Strength: Strong. Texture: Smooth, glabrous. Color: Close to 146A to 146B.

Pedicels.—Length: About 4 mm to 6 mm. Diameter: About 1 mm. Aspect: Erect to about 45° from vertical. Strength: Moderately strong. Texture: Smooth, glabrous. Color: Close to 146A.

Reproductive organs.—Androecium: Stamen number: About six per flower. Anther shape: Cordate. Anther length: About 1 mm. Anther color: Close to 165B. Amount of pollen: None observed. Gynoecium: Pistil number: About five per flower. Pistil length: About 7 mm to 8 mm. Style length: About 2 mm. Style color: Close to 145C. Stigma shape: Rounded. Stigma color: Close to 154D. Ovary color: Close to 145A.

Seed/fruit.—Seed and fruit development have not been observed.

Temperature tolerance: Plants of the new *Kalanchoe* have been observed to tolerate temperatures from about 5° C. to about 35° C.

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

It is claimed:

1. A new and distinct *Kalanchoe* plant named 'Don Angelo' as illustrated and described.

* * * * *



