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Jepsen

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

(50) Latin Name: *Kalanchoe blossfeldiana*
Varietal Denomination: **Grace**

(75) Inventor: **Knud Jepsen**, Hinnerup (DK)

(73) Assignee: **Knud Jepsen A/S**, Hinnerup (DK)

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(58) **Field of Classification Search** **Plt./336**
See application file for complete search history.

Primary Examiner—Kent L. Bell
Assistant Examiner—Georgia Helmer
(74) *Attorney, Agent, or Firm*—C. A. Whealy

(57) **ABSTRACT**

A new and distinct cultivar of *Kalanchoe* plant named 'Grace', characterized by its large, upright, uniform and moderately vigorous growth habit; large dark green-colored leaves; uniform and freely flowering habit; large double white-colored flowers; and excellent postproduction longevity.

1 Drawing Sheet

1

Botanical designation: *Kalanchoe blossfeldiana*.
Cultivar denomination: 'Grace'.

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 'Grace'.

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

The new *Kalanchoe* originated from a cross-pollination made by the Inventor in Hinnerup, Denmark in September, 2004, of the *Kalanchoe blossfeldiana* cultivar KJ 2003 0818, disclosed in U.S. Plant patent application Ser. No. 11/080, 401, as the female, or seed parent with the *Kalanchoe blossfeldiana* cultivar KJ 2001 0934, disclosed in U.S. Plant Pat. No. 16,376, as the male, or pollen, parent. The cultivar Grace 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 Hinnerup, Denmark in May, 2005.

Asexual reproduction of the new *Kalanchoe* by vegetative terminal cuttings in a controlled environment in Hinnerup, Denmark since July, 2005, has shown that the unique features of this new *Kalanchoe* are stable and reproduced true to type in successive generations.

SUMMARY OF THE INVENTION

The cultivar Grace 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.

The following traits have been repeatedly observed and are determined to be the unique characteristics of 'Grace'. These characteristics in combination distinguish 'Grace' as a new and distinct cultivar of *Kalanchoe*:

2

1. Large, upright, uniform and moderately vigorous growth habit.
2. Large dark green-colored leaves.
3. Uniform and freely flowering habit.
4. Large double white-colored flowers.
5. Excellent postproduction longevity.

Plants of the new *Kalanchoe* can be compared to plants of the female parent, the cultivar KJ 2003 0818. Plants of the new *Kalanchoe* differ from plants of the cultivar KJ 2003 0818 in the following characteristics:

1. Plants of the new *Kalanchoe* have longer leaves than plants of the cultivar KJ 2003 0818.
2. Plants of the new *Kalanchoe* have larger flowers with more petals than plants of the cultivar KJ 2003 0818.
3. Plants of the new *Kalanchoe* and the cultivar KJ 2003 0818 differ in flower color as plants of the cultivar KJ 2003 0818 have pink-colored flowers.

Plants of the new *Kalanchoe* can also be compared to plants of the male parent, the cultivar KJ 2001 0934. Plants of the new *Kalanchoe* differ from plants of the cultivar KJ 2001 0934 in the following characteristics:

1. Plants of the new *Kalanchoe* have double flowers whereas plants of the cultivar KJ 2001 0934 have single flowers.
2. Plants of the new *Kalanchoe* and the cultivar KJ 2001 0934 differ in flower color as plants of the cultivar KJ 2001 0934 have light pink-colored flowers.

Plants of the new *Kalanchoe* can be compared to plants of the *Kalanchoe blossfeldiana* cultivar Yazmin, disclosed in U.S. Plant patent application Ser. No. 11/358,831. In side-by-side comparisons conducted in Hinnerup, Denmark, plants of the new *Kalanchoe* differed from plants of the cultivar Yazmin in the following characteristics:

1. Plants of the new *Kalanchoe* were broader than plants of the cultivar Yazmin.
2. Plants of the new *Kalanchoe* had longer leaves than plants of the cultivar Yazmin.
3. Plants of the new *Kalanchoe* were more freely flowering than plants of the cultivar Yazmin.

4. Plants of the new *Kalanchoe* had larger flowers than plants of the cultivar Yazmin.
5. Flowers of plants of the new *Kalanchoe* had more petals than flowers of plants of the cultivar Yazmin.

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 at the top of the sheet comprises a side perspective view of a typical flowering plant of 'Grace' grown in a container.

The photograph at the bottom of the sheet comprises a top perspective view of a typical flowering plant of 'Grace'.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations, measurements and values describe plants grown in Hinnerup, Denmark in a glass-covered greenhouse during the autumn and winter and under conditions which closely approximate commercial production. During the production of the plants, day temperatures were about 19° C., night temperatures were about 21° C. and light levels ranged from 10 kilolux to 50 kilolux. Unrooted cuttings were directly stuck in 10-cm containers and received long day/short night conditions (more than 14 hours of light) for about two weeks; plants then received photoinductive short day/long night conditions (minimum 14 hours darkness) until flowering. Plants were about 15 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 Grace.

Parentage:

Female, or seed, parent.—*Kalanchoe blossfeldiana* cultivar KJ 2003 0818, disclosed in U.S. Plant patent application Ser. No. 11/080,401.

Male or pollen parent.—*Kalanchoe blossfeldiana* cultivar KJ 2001 0934, disclosed in U.S. Plant Pat. No. 16,376.

Propagation:

Type.—By vegetative terminal cuttings.

Time to initiate roots, summer.—About two weeks at temperatures of 19° C. to 21° C.

Time to initiate roots, winter.—About three weeks at temperatures of 19° C. to 21° C.

Time to produce a rooted young plant, summer.—About 21 days at temperatures of 19° C. to 21° C.

Time to produce a rooted young plant, winter.—About 24 days at temperatures of 19° C. to 21° C.

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

Rooting habit.—Freely branching; moderately dense.

Plant description:

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

Plant height at flowering.—About 27 cm.

Plant diameter at flowering.—About 28 cm.

Branching habit.—Usually about two to three lateral branches develop per plant. Pinching (removal of the terminal apex) is not required but will enhance lateral branch development.

Lateral branch description:

Length.—About 16 cm.

Diameter.—About 8 mm.

Internode length.—About 1 cm to 4 cm.

Aspect.—Erect.

Strength.—Strong.

Texture.—Smooth, glabrous.

Color.—147A.

Foliage description:

Arrangement.—Opposite, simple; generally symmetrical.

Length, vegetative plant.—About 12 cm to 14 cm.

Width, vegetative plants.—About 6 cm to 8 cm.

Length, generative plants.—About 4 cm to 7 cm.

Width, generative plants.—About 4 cm to 5 cm.

Shape.—Ovate.

Apex.—Rounded.

Base.—Cuneate.

Margin.—Crenate.

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

Venation pattern.—Pinnate.

Color.—Developing foliage, upper surface: 147A.

Developing foliage, lower surface: 137C. Fully expanded foliage, upper surface: 147B; venation, 147A. Fully expanded foliage, lower surface: 137C; venation, 137C.

Petiole.—Length: About 1 cm to 1.5 cm. Diameter: About 8 mm. Texture, upper and lower surfaces: Smooth, glabrous. Color, upper and lower surfaces: 147A.

Flower description:

Flower arrangement and habit.—Double flowers arranged singly in compound dichasial cymes that arises from leaf axis. Uniform and freely flowering habit with usually about 20 to 65 flowers per inflorescence. Flowers not 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 conditions (at least 14 hours of darkness).

Time to flower.—Under short day/long night photoinductive conditions, about 82 days 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 six weeks under interior environmental conditions.

Inflorescence height.—About 16 cm.

Inflorescence diameter.—About 6 cm to 11 cm.

Flower diameter.—About 3.2 cm.

Flower length (height).—About 1.2 cm.

Flower bud.—Shape: Ellipsoidal. Length: About 1.8 cm. Diameter: About 1 cm. Color: 144C.

Petals.—Arrangement: About 45 fused at the base. Length (largest petals): About 1.4 cm. Width (largest

petals): About 1 cm. Aspect: Slightly upright to eventually recurved. Shape: Ovate. Apex: Obtuse. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous. Color: When opening and fully opened, upper surface: 155D. When opening and fully opened, lower surface: 155D tinted with green, close to 144A.

Sepals.—Appearance: Four fused at the base. Length: About 1 cm. Width: About 3 mm. Shape: Elliptic. Apex: Acute. Margin: Entire. Texture, upper and lower surfaces: Smooth; glabrous. Color, immature and mature, upper surface: 143A. Color, immature and mature, lower surface: 143B.

Peduncles.—Length: About 1 cm to 1.5 cm. Diameter: About 1.5 mm. Aspect: Erect to about 60° from vertical. Strength: Strong. Texture: Smooth, glabrous. Color: 147A.

Pedicels.—Length: About 2 mm to 4 mm. Diameter: About 1 mm to 2 mm. Aspect: Erect to about 90° from vertical. Strength: Strong. Texture: Smooth, glabrous. Color: 147A.

Reproductive organs.—Androecium: Stamen number: About five to ten per flower. Anther shape: Elliptic, flat. Anther size: About 1 mm by 1 mm. Anther color: Close to 22A. Amount of pollen: Scarce. Pollen color: Close to 19A. Gynoecium: Pistil number: About four per flower. Pistil length: About 8 mm. Style length: About 3 mm. Style color: 145A. Stigma shape: Rounded. Stigma color: 145A. Ovary color: Close to 145C.

Seed.—Length: Less than 1 mm. Diameter: Less than 1 mm. Color, immature: 145C. Color, mature: 177A.

Temperature tolerance: Plants of the new *Kalanchoe* have been observed to tolerate temperatures from about 5° C. to about 30° 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 'Grace' as illustrated and described.

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