



US00PP18288P2

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

(10) **Patent No.:** **US PP18,288 P2**  
(45) **Date of Patent:** **Dec. 4, 2007**

- (54) **KALANCHOE PLANT NAMED ‘MERU IMPROVED’**
- (50) Latin Name: *Kalanchoe blossfeldiana*  
Varietal Denomination: **Meru Improved**
- (75) Inventor: **Ike Vlieland**, De Lier (NL)
- (73) Assignee: **Fides B.V.**, De Lier (NL)
- (\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
- (21) Appl. No.: **11/436,071**
- (22) Filed: **May 17, 2006**
- (51) **Int. Cl.**  
**A01H 5/00** (2006.01)
- (52) **U.S. Cl.** ..... **Plt./335**
- (58) **Field of Classification Search** ..... **Plt./335**  
See application file for complete search history.

- (56) **References Cited**
- U.S. PATENT DOCUMENTS
- PP11,653 P \* 11/2000 Vlieland ..... Plt./335
- OTHER PUBLICATIONS
- UPOV ROM GTITM Computer Database, GTI Jouve 2006/04 Citation for ‘Meru Improved’.\*
- \* cited by examiner
- Primary Examiner*—Wendy C. Haas
- (74) *Attorney, Agent, or Firm*—C. A. Whealy

(57) **ABSTRACT**

A new and distinct cultivar of *Kalanchoe* plant named ‘Meru Improved’, characterized by its compact, upright, uniform and strong growth habit; freely branching plant habit; glossy dark green-colored leaves; uniform, freely and early flowering habit; relatively large light pink and red bi-colored flowers; and excellent postproduction longevity.

**1 Drawing Sheet**

**1**

Botanical designation: *Kalanchoe blossfeldiana*.  
Cultivar denomination: ‘Meru Improved’.

**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 ‘Meru Improved’.

The new *Kalanchoe* is a product of a planned breeding program conducted by the Inventor in De Lier, The Netherlands. The objective of the breeding program is to create new freely-branching and freely-flowering *Kalanchoe* cultivars with attractive foliage and flower coloration.

The new *Kalanchoe* originated from a cross-pollination made by the Inventor in De Lier, The Netherlands in 1997, of the *Kalanchoe blossfeldiana* cultivar Pablo, disclosed in U.S. Plant Pat. No. 11,653, as the female, or seed, parent with a proprietary *Kalanchoe blossfeldiana* selection, designated as code number FK 3855, not patented, as the male, or pollen, parent. The cultivar Meru Improved 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 De Lier, The Netherlands.

Asexual reproduction of the new *Kalanchoe* by vegetative terminal cuttings in a controlled environment in De Lier, The Netherlands since August, 1999, 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 Meru Improved 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.

**2**

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

1. Compact, upright, uniform and strong growth habit.
2. Freely branching plant habit.
3. Glossy dark green-colored leaves.
4. Uniform, freely and early flowering habit.
5. Relatively large light pink and red bi-colored flowers.
6. Excellent postproduction longevity.

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

1. Plants of the new *Kalanchoe* are more compact than plants of the cultivar Pablo.
2. Plants of the new *Kalanchoe* have larger flowers than plants of the cultivar Pablo.
3. Plants of the new *Kalanchoe* and the cultivar Pablo differ in flower color.
4. Plants of the new *Kalanchoe* have better postproduction longevity than plants of the cultivar Pablo.

Plants of the new *Kalanchoe* can be compared to plants of the male parent selection. Plants of the new *Kalanchoe* differ from plants of the male parent selection primarily in flower color.

Plants of the new *Kalanchoe* can be compared to plants of the *Kalanchoe blossfeldiana* cultivar Blanca, not patented. In side-by-side comparisons conducted in De Lier, The Netherlands, plants of the new *Kalanchoe* differed from plants of the cultivar Blanca in the following characteristics:

1. Plants of the new *Kalanchoe* were more compact than plants of the cultivar Blanca.

2. Plants of the new *Kalanchoe* had smaller leaves than plants of the cultivar Blanca.
3. Plants of the new *Kalanchoe* had slightly larger flowers than plants of the cultivar Blanca.
4. Plants of the new *Kalanchoe* and the cultivars Blanca differed in flower color.
5. Plants of the new *Kalanchoe* had better postproduction longevity than plants of the cultivar Blanca.

#### 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 perspective view of a typical flowering plant of 'Meru Improved' grown in a container.

#### DETAILED BOTANICAL DESCRIPTION

The photographs and following observations, measurements and values describe plants grown in De Lier, The Netherlands in a glass-covered greenhouse during the autumn and under conditions which closely approximate commercial production. During the production of the plants, day temperatures ranged from 19° C. to 26° C., night temperatures ranged from 20° C. to 21° C. and light levels ranged from 10,000 lux to 55,000 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 when the photographs and the description were taken. In the detailed description, color references are made to The Royal Horticultural Society Colour Chart, 1995 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Kalanchoe blossfeldiana* cultivar Meru Improved.

Parentage:

*Female, or seed, parent.*—*Kalanchoe blossfeldiana* cultivar Pablo, disclosed in U.S. Plant Pat. No. 11,653.

*Male or pollen parent.*—Proprietary selection of *Kalanchoe blossfeldiana* designated as code number FK 3855, not patented.

Propagation:

*Type.*—By vegetative terminal cuttings.

*Time to initiate roots.*—About 14 to 17 days at temperatures of 21° C.

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

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

*Rooting habit.*—Freely branching; dense.

Plant description:

*Plant habit.*—Compact, upright, uniform and strong growth habit. Very freely flowering with numerous compound cymes. Inverted triangle with rounded crown. Appropriate for 10-cm to 15-cm containers.

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

*Plant diameter at flowering.*—About 14 cm.

*Branching habit.*—Freely branching, usually about six to nine lateral branches developed per plant. Pinching (removal of the terminal apex) is not required but will enhance lateral branch development.

Lateral branch description:

*Length.*—About 10 cm to 16 cm.

*Diameter.*—About 3 mm to 5 mm.

*Internode length.*—About 2 cm to 3 cm.

*Aspect.*—Erect.

*Strength.*—Moderately strong.

*Texture.*—Smooth, glabrous.

*Color.*—147A.

Foliage description:

*Arrangement.*—Opposite, simple; generally symmetrical.

*Quantity per plant.*—About 8 to 13 mature leaves and about 13 to 20 generative leaves.

*Length.*—About 9 cm.

*Width.*—About 7 cm.

*Shape.*—Elliptic.

*Apex.*—Acute to obtuse.

*Base.*—Acute.

*Margin.*—Crenate.

*Texture, upper and flower surfaces.*—Glabrous; leathery; succulent.

*Venation pattern.*—Pinnate.

*Color.*—Developing and fully developed foliage, upper surface: 147A; venation, 147A to 147B. Developing and fully developed foliage, lower surface: 147B; venation, 147B.

*Petiole.*—Length: About 1.3 cm. Diameter: About 4 mm to 8 mm. Texture, upper and lower surfaces: Smooth, glabrous. Color, upper and lower surfaces: 147A to 147B.

Flower description:

*Flower arrangement and habit.*—Flowers arranged singly in compound dichasial cymes that arise from leaf axils. Uniform and freely flowering habit with usually about 25 open flowers and about 25 flower buds per lateral branch and more than 200 open flowers and flower buds 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 conditions (at least 14 hours of darkness).

*Time to flower.*—Early flowering habit; under short day/long night photoinductive conditions, about eight to eleven 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 47 days under interior environmental conditions. Individual flowers last about 20 days on the plant.

*Flower diameter.*—About 1.8 cm.

*Flower length (height).*—About 1.4 cm.

*Flower bud.*—Shape: Initially oblong, becoming tubular ovoid with development. Length: About 9 mm. Diameter: About 3 mm. Color: Close to 138C becoming closer to 49D before opening.

*Petals*.—Arrangement: Four fused at the base. Length: About 8.5 mm. Width: About 5 mm. Aspect: Flat to slightly upright. Shape: Ovate. Apex: Acute. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous. Color: When opening, upper surface: Towards the apex, 19A; towards the base, 52A. When opening, lower surface: 49A to 50D. Fully opened, upper surface: Towards the apex, 56D to 155A; towards the base, 52B; color becoming closer to 155C towards the apex and 49C towards the base. Fully opened, lower surface: 49A to 50D.

*Sepals*.—Appearance: Four fused at the base. Length: About 6 mm. Width: About 2 mm. Aspect: Erect. Shape: Oblong, pointed. Apex: Acute. Margin: Entire. Texture, upper and lower surfaces: Smooth; glabrous. Color, upper and lower surfaces: Close to 138D.

*Peduncles*.—Length: About 3 mm to 5 mm. Diameter: About 1 mm. Aspect: Erect. Strength: Strong. Texture: Smooth, glabrous. Color: 138B.

*Reproductive organs*.—Androecium: Stamen number: About eight per flower. Anther shape: Elliptic, flat. Anther length: About 0.3 mm. Anther color: Close to 150D. Amount of pollen: Scarce. Pollen color: Close to 12A. Gynoecium: Pistil number: About four per flower. Pistil length: About 1 mm. Style length: About 1 mm. Style color: 138D. Stigma shape: Flat. Stigma color: 8D. Ovary color: Close to 138D.

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

Temperature tolerance: Plants of the new *Kalanchoe* have been observed to tolerate temperatures from about 16° 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 'Meru Improved' as illustrated and described.

\* \* \* \* \*

