



US00PP24881P3

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

(10) **Patent No.:** **US PP24,881 P3**
(45) **Date of Patent:** **Sep. 16, 2014**

(54) **ADENIUM PLANT NAMED ‘LEELADE207’**

(50) Latin Name: *Adenium obesum*
Varietal Denomination: **LEELADE207**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 30 days.

(21) Appl. No.: **13/573,450**

(22) Filed: **Sep. 15, 2012**

(65) **Prior Publication Data**

US 2014/0082787 P1 Mar. 20, 2014

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

(52) **U.S. Cl.**
USPC **Plt./226**

(58) **Field of Classification Search**
USPC Plt./263.1, 226, 373
See application file for complete search history.

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(57) **ABSTRACT**
A new and distinct *Adenium* cultivar named ‘LEELADE207’ is disclosed, characterized by unique double white flowers. The new variety is a *Adenium*, typically produced as an indoor ornamental plant.

1 Drawing Sheet

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Latin name of the genus and species: *Adenium obesum*.
Variety denomination: ‘LEELADE207’.

BACKGROUND OF THE INVENTION

This application relates to a new cultivar of *Adenium obesum*. The new variety is the product of a planned breeding program. The new variety originated as a seedling from the crossing of the unpatented, proprietary seed parent *Adenium obesum* ‘VCKWW1’ with the unpatented, proprietary pollen parent referred to as *Adenium obesum* ‘VKGW2’. The crossing was made by the inventor in a non-commercial nursery during 2006.

The new variety was first selected by the inventor, Anong Leelachaikul, a citizen of Thailand, in May 2008, at the same nursery in Bangkok, Thailand. After identifying the new variety as a potentially interesting selection, the inventor continued confidential testing and propagation of ‘LEELADE207’, assessing stability of the unique characteristics of this variety.

Asexual reproduction of the new cultivar ‘LEELADE207’ was first performed in December 2009, at a commercial nursery in Bangkok, Thailand by taking a nodal cutting from the new variety and grafting that to a rootstock plant. The rootstock plants are started from seed, and are unnamed, unpatented varieties of *Adenium obesum*. Access to all plants was restricted, as plants were kept in a greenhouse not open to the public. started from seed, and are unnamed, unpatented varieties of *Adenium obesum*. Access to all plants was restricted, as plants were kept in a greenhouse not open to the public. Through subsequent propagation by vegetative cuttings, multiple generations have been reproduced, which have shown that the unique features of this cultivar are stable and reproduced true to type.

SUMMARY OF THE INVENTION

The cultivar ‘LEELADE207’ has not been observed under all possible environmental conditions. The phenotype may vary somewhat with variations in environment such as temperature, day length, and light intensity, without, however, any variance in genotype.

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The following traits have been repeatedly observed and are determined to be the unique characteristics of ‘LEELADE207’. These characteristics in combination distinguish ‘LEELADE207’ as a new and distinct *Adenium* cultivar:

1. Double white flowers.

PARENT COMPARISON

Plants of the new cultivar ‘LEELADE207’ are similar to the seed parent, *Adenium* ‘VCKWW1’ in most horticultural characteristics. The new variety, however, produces double layered flowers whereas the seed parent produces single layered flowers.

Plants of the new cultivar ‘LEELADE207’ are similar to the pollen parent, *Adenium* ‘VKGW2’ in most horticultural characteristics. The new variety, however, produces flowers that are white in color, whereas the flowers produced by the pollen parent are white with a red center.

COMMERCIAL COMPARISON

Plants of the new cultivar ‘LEELADE207’ are similar to the commercial variety, *Adenium* ‘Kao Mali’ in most horticultural characteristics. However, the new variety differs in the following characteristics:

1. Different leaf color.
2. Different petal shape.
3. Leaf margin of ‘Kao Mali’ is serrate, that of ‘LEELADE207’ is wavy.

Plants of the new cultivar ‘LEELADE207’ are similar to the commercial variety, *Adenium* ‘White Angel’ in most horticultural characteristics. However, the new variety differs in the following characteristics:

1. Very different petal shape
2. Leaf Margin of ‘White Angel’ is serrate, that of ‘LEELADE207’ is wavy.
3. The heart of flower of ‘White Angel’ is much greener than that of ‘LEELADE207’.

BRIEF DESCRIPTION OF THE PHOTOGRAPH

The accompanying photograph in FIG. 1 illustrates in full color a typical plant of ‘LEELADE207’ grafted outdoors in

Thailand and grown in a commercial greenhouse in Honselersdijk, the Netherlands. This plant is approximately 9 months old from the graft, shown planted in 15 cm. container. The plant has been grown according to the details in the following paragraph. The photograph was taken using conventional techniques and although colors may appear different from actual colors due to light reflectance it is as accurate as possible by conventional photographic techniques.

DETAILED BOTANICAL DESCRIPTION

In the following description, color references are made to The Royal Horticultural Society Colour Chart 2001, except where general terms of ordinary dictionary significance are used. The following observations and measurements describe 'LEELADE207' plants grown according to the following protocols.

Taking place in a commercial nursery, outdoors in Bangkok, Thailand, rootstock is grown from seeds. Seeds are planted and grown for 12-14 months. After that, heads are taken off the rootstock plants and the plants are grafted together with the selected variety.

Grafting is done by means of taking a nodal cutting from the candidate variety and placing that on top of the cut of the rootstock plant. Immediately after that, the top of the plant is covered by a layer of plastic and tied down by a rubber band. The plastic covers the actual graft entirely.

Rootstock plants during the first few weeks after seeding are grown under shade, and after that they are grown in Thailand in full sun. Stock plants of the candidate variety, resulting in the nodal cutting are also grown in Thailand in full sun.

During and until 1-2 weeks after grafting, plants are placed in a greenhouse that has both shade cloth and overhead plastic. This protects the grafted plants against the sun and the rain. After that, the grafted plants are placed in full sun again.

Three to four months after grafting, the grafted plants are cut back and shipped to the Netherlands. In the Netherlands, the plants continue to grow for 3-5 months, after which they are sold as flowering plant. Therefore, counted from the date of grafting, it takes 6-9 months to produce a finished flowering plant.

In Thailand the plants grow under natural conditions, with temperatures ranging approximately from 10° C. to 40° C., and very bright sunlight. In the Netherlands, the plants are grown in a greenhouse with average day temperature about 26 degrees Celsius and average night temperature about 22 degrees Celsius, un-shaded, to allow as much natural light as possible.

Measurements and numerical values below represent averages of typical plant types.

Botanical classification: *Adenium obesum* 'LEELADE207'.

PROPAGATION

Root description: The plant described is grafted and does not have its own roots for description.

PLANT

Caudex description:

Diameter.—Average: 5.6 cm.

Height.—Average: 7.2 cm.

Color.—Greyed-green, near RHS 191A.

Texture.—Smooth, very slightly glossy.

Plant spread: Approximately 26.5 cm.

Plant height: Top of flowering plane, average: 24.0 cm. Top of foliar plane, average: 24.0 cm.

Growth rate: Moderate.

Length of primary stem: Approximately 1.9 cm.

5 *Diameter of primary stem*: Approximately 2.2 cm.

Stem color: Greyed-green, near RHS 191A and 198B and 198C.

Stem texture: Smooth, very slightly glossy.

Lateral branches.—Quantity: 3 (after pinching).

10 *Length*: 11.5 cm. *Diameter*: 1.0 cm. *Color*: Young stems green near RHS 143B older stems greyed-green, in between near RHS 191B and 196B.

Texture/pubescence.—Smooth, moderately glossy.

Internode length: Approximately 0.5 cm.

15 *Age of plant described*: Approximately 9 months from grafting. Grafted plants grown in the Netherlands, in a commercial greenhouse.

FOLIAGE

20 *Leaf*:

Arrangement.—Alternate.

Quantity.—Approximately 16 per lateral branch.

Average length.—Approximately 7.8 cm.

25 *Average width*.—Approximately 2.7 cm.

Shape of blade.—Oblanceolate.

Apex.—Abruptly acute.

Base.—Narrow cuneate.

Attachment.—Sessile.

Margin.—Entire.

Texture of top surface.—Smooth, glossy.

Texture of bottom surface.—Smooth, matte.

Pubescence.—No pubescence.

Color.—Young foliage upper side: Green, near RHS 137B. Young foliage under side: Green, near RHS 138C. Mature foliage upper side: Green, near RHS N137A. Mature foliage under side: Green to greyed-green, in between near RHS 138B and 191B.

Venation.—Type: Pinnate. *Venation color upper side*: Greyed-green, near RHS 192A. *Venation color under side*: Greyed-green, near RHS 193A.

Petiole.—No petioles present, leaves sessile.

FLOWERING CHARACTERISTICS

45 *Natural flowering season*: In Thailand, the plants flower all year around, but during periods of heavy rain, the plants do drop most or all of their flowers. Therefore, especially during the rainy seasons in Thailand, the plants will not flower so heavily as during the dry seasons. In the Netherlands, the plants will naturally flower most heavily during periods of very heavy sun and long days, particularly in July and August and to a lesser extent in June and September.

55 *Inflorescence type and habit*: Axillary compound cyme.

Flower longevity on plant: Average: After fully opening, the flowers will stay on the plant on average between 5-10 days.

Quantity of flowers: About 20 buds and 15 fully opened flowers per plant, at one time.

60 *Inflorescence size*:

Diameter.—Approximately 13.2 cm.

Height.—Approximately 8.0 cm.

Individual flower size:

65 *Diameter*.—Average: 6.5 cm.

Flower tube length.—Average: 3.6 cm.

Flower tube diameter at distal end.—Average: 1.9 cm.
Flower tube diameter at proximal end.—Average: 0.4 cm.

Petals:

Petal arrangement.—Rotate.
Length from throat.—Average: 2.9 cm.
Width.—Average: 3.3 cm.
Quantity.—Average: 5.
Texture.—Smooth, slightly velvety, dull.
Margin.—Entire, wavy.
Tip shape.—Retuse to rounded.
Petaloids.—Average: 10, average length from throat: 2.6 cm, average width: 3.0 cm, texture: smooth, slightly velvety, dull, margins entire, wavy, tip shaped broad acute.

Color:

Petals.—When opening: Upper surface: White, near RHS 155A. Lower surface: White, near RHS 155A. Fully opened: Upper surface: White, near RHS N155B, slightly tinged green-white near the margins; near 157D. Lower surface: White, near RHS N155A. Flower throat (inside): Yellow-green, near RHS 154D. Flower throat, vein: Yellow-green, near RHS 154D. Flower tube (outside): Yellow, near RHS 2D. Flower tube, vein: Yellow, near RHS 2D. Fading Petals fading to: Not fading.

Color:

Petaloids.—When opening: Upper surface: White, near RHS N155C. Lower surface: White, near RHS N155B. Fully opened: Upper surface: White, near RHS N155D. Lower surface: White, near RHS N155C. Fading Petaloids fading to: Not fading.

Bud:

Shape.—Oblanceolate.
Length.—Average: 2.5 cm.
Diameter.—Average: 0.9 cm.
Color.—Yellow-green, near RHS 145C, top lighter, RHS 145D.

Peduncle:

Length.—Average: 0.5 cm.
Diameter.—Average: 0.4 cm.
Color.—Yellow-green, near RHS 145A.
Orientation.—Outward to upright.
Strength.—Moderately strong.

Pedicel:

Length.—Average: 0.7 cm.

Diameter.—Average: 0.35 cm.
Color.—Yellow-green, near RHS 145B.
Orientation.—Outward.
Strength.—Moderately strong.

Sepals:

Quantity per flower.—Average: 5.
Shape.—Narrow ovate.
Length.—Approximately 0.8 cm.
Width.—Approximately 0.4 cm.
Margin.—Entire.
Texture.—Smooth.
Color.—Upper and lower surfaces Yellow-green, near RHS 145B to 145C both colors present individually.
Apex.—Mucronulate.

REPRODUCTIVE ORGANS

Stamens:

Number.—Average: 5.
Filament length.—Approximately 0.4 cm.

Anthers:

Shape.—Linear.
Length.—Approximately 2.2 cm.
Color.—White, near RHS N155D.
Pollen.—No pollen detected.

Pistil:

Number.—Average: 1.
Length.—Approximately 1.8 cm.
Style.—Length: Approximately 1.75 cm. Color: Yellow-green, near RHS 145D.
Stigma.—Shape: Club-shaped. Color: Yellow-green, near RHS 145B. Ovary color: Yellow-green, near RHS 145C.

OTHER CHARACTERISTICS

Disease resistance: Good resistance to the normal diseases found in *Adenium*.
Drought tolerance and cold tolerance: Normal for species, USDA zone 10 and higher.
Fruit/seed production: No fruits/seeds detected to date.

What is claimed is:

1. A new and distinct cultivar of *Adenium* plant named 'LEELADE207' as herein illustrated and described.

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