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(12) **United States Plant Patent**
Van Swieten(10) **Patent No.:** US PP27,456 P2
(45) **Date of Patent:** Dec. 13, 2016(54) **PHALAENOPSIS ORCHID PLANT NAMED
'PHALFYQDHA'**(50) Latin Name: *Phalaenopsis* hybrid
Varietal Denomination: **PHALFYQDHA**(71) Applicant: **ANTHURA B.V.**, Bleiswijk (NL)(72) Inventor: **Martinus Nicolaas Gerardus Van
Swieten**, Utrecht (NL)(73) Assignee: **ANTHURA B.V.**, Bleiswijk (NL)

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A01H 5/02 (2006.01)(52) **U.S. Cl.**
USPC Plt./311(58) **Field of Classification Search**
USPC Plt./311
See application file for complete search history.(56) **References Cited****PUBLICATIONS**PLUTO Plant Variety Database Sep. 10, 2016. p. 1.*
Enclosure for the Plant Patent application of Anthura BV, 13 pages, 2015.

* cited by examiner

Primary Examiner — Annette Para(74) *Attorney, Agent, or Firm* — Jondle & Associates, P.C.(57) **ABSTRACT**

A new and distinct variety of *Phalaenopsis* plant named 'PHALFYQDHA', particularly characterized by having yellow flowers with small white center and purple lip, 1 to 4 peduncles, an inflorescence that is long and sturdy, leaves that are narrow obovate, and is propagated by meristem tissue culture is disclosed.

3 Drawing Sheets**1**

Genus and species: *Phalaenopsis* hybrid.
Variety denomination: 'PHALFYQDHA'.

BACKGROUND OF THE NEW PLANT

The present invention comprises a new and distinct cultivar of *Phalaenopsis* plant, botanically known as *Phalaenopsis* of the Orchidaceae family, and hereinafter referred to by the cultivar name 'PHALFYQDHA'.

Phalaenopsis comprises a genus of about 60 species of herbaceous perennials many of which, or the hybrids thereof, are suitable for cultivar in the home or greenhouse. *Phalaenopsis* is predominantly epiphytic or rock dwelling, and is native to tropical Asia, the Malay Archipelago, and Oceania. The species typically has 2-ranked, fleshy, oblong or elliptic leaves affixed to a short central stem (monopodial growth), which vary in size from 12 to 20 cm to over 60 cm. The leaves may be entirely green or mottled with silver grey.

Phalaenopsis orchids, often referred to as 'Moth Orchids' in the horticultural trade, are frequently used to furnish cut flowers for the florist trade or sold as flowering potted-plants for home or interiorscape.

Phalaenopsis produces upright or pendent lateral racemes, often with many showy flowers which open in succession beginning with the lowermost. The flowers possess three sepals and three petals; the lateral ones being alike. The lowermost petals, called the labellum, are three-lobed and are often more brightly-colored than the other flower segments. Flower colors include various shades of pink, white, yellow, and red-brown.

Phalaenopsis orchids are typically propagated from seeds. Asexual propagation of *Phalaenopsis* is often done from off-shoots which arise from the lower bracts of the

2

inflorescence. The resulting plants are detached from the mother plants and may be planted in a suitable substrate.

The new *Phalaenopsis* 'PHALFYQDHA' is particularly characterized by its attractive and unique yellow flowers with small white center and purple lip, economical propagation by tissue culture, rapid growth, and a plant dimension suitable for packaging and shipping to the market.

'PHALFYQDHA' is a product of a planned breeding program conducted by the inventor in Bleiswijk, The Netherlands.

10 The new *Phalaenopsis* 'PHALFYQDHA' originated from a cross made in July 2007 in Bleiswijk, The Netherlands. The female parent is a white *Phalaenopsis* pot plant named '06541-0001' (unpatented), while the male parent is a yellow *Phalaenopsis* pot plant named '00001-1960' (unpatented). A single plant was selected in July 2010 and has been asexually reproduced repeatedly by meristem tissue culture in Bleiswijk, The Netherlands over a 1.5-year period. The new variety has been found to retain its distinctive characteristics through successive asexual propagations.

20 Asexual reproduction of 'PHALFYQDHA' by tissue culture was first performed in April 2013 in Bleiswijk, The Netherlands and has demonstrated that the new cultivar is firmly fixed and retained through successive generations of asexual reproduction.

25 Plant Breeder's Rights for this variety have been applied for in Europe on Sep. 29, 2014. 'PHALFYQDHA' has not been made publicly available or sold anywhere in the world more than one year prior to the filing date of this application.

SUMMARY OF THE INVENTION

30 The following are the most outstanding and distinguishing characteristics of this new cultivar when grown under normal horticultural practices in Bleiswijk, The Netherlands.

- 1) Yellow flowers with small white center and purple lip;
 2) 1 to 4 peduncles;
 3) Inflorescence is long and sturdy;
 4) Shape of the leaf is narrow obovate; and
 5) Plants are propagated by meristem tissue culture.

DESCRIPTION OF THE PHOTOGRAPHS

This new *Phalaenopsis* plant is illustrated by the accompanying photographs which show the overall plant habit including blooms, buds and foliage of the plant; the colors shown are as true as can be reasonably obtained by conventional photographic procedures. The photographs are of a 50-week old plant grown in a greenhouse in Bleiswijk, The Netherlands in July 2015.

FIG. 1 shows the overall plant habit, including blooms, buds and foliage of 'PHALFYQDHA'.

FIG. 2 shows a close-up of a flower of 'PHALFYQDHA'.

FIG. 3 shows a close-up of the leaves of 'PHALFYQDHA'.

DESCRIPTION OF THE NEW VARIETY

The following detailed description sets forth the distinctive characteristics of 'PHALFYQDHA'. The data which define these characteristics were collected from asexual reproductions carried out in Bleiswijk, The Netherlands. The plant history was taken on 50-week old plants which were planted from a nursery tray in 12 centimeter pots and grown in a greenhouse between 27° C. to 29° C. for 30 weeks, continued by a cooling period of 8 weeks between 18° C. to 20° C. and 12 weeks in a greenhouse of 21° C. Observations were made in July 2015. Color readings were taken under 4-6000 lux natural light in the greenhouse. Color references are primarily to The R.H.S. Colour Chart of The Royal Horticultural Society of London (R.H.S.) (1995).

DETAILED BOTANICAL DESCRIPTION

Classification:

Family.—Orchidaceae.

Botanical.—*Phalaenopsis* hybrid.

Common name.—*Phalaenopsis*.

Variety name.—'PHALFYQDHA'.

Parentage:

Female parent.—*Phalaenopsis* cultivar '06541-0001' (unpatented).

Male parent.—*Phalaenopsis* cultivar '00001-1960' (unpatented).

Propagation:

Type.—Meristem tissue culture.

Plant:

Crop time (time to produce a finished flowering plant).—48 to 50 weeks for a 12 cm pot.

Growth habit of peduncle.—Standard, green leaves, panicle to raceme.

Height (including pot, including inflorescence).—52.0 cm to 62.0 cm.

Width (measured from leaf tips).—40.0 cm to 42.0 cm.

Vigor.—Strong.

Roots: Root description: Grey-green colored roots with light branching lateral roots having grey-purple colored root tips.

Leaves:

Mature leaves.—Quantity per plant: 6 to 9 leaves are produced before flowering. Length (fully expanded):

21.0 cm to 25.0 cm. Width: 7.0 cm to 8.0 cm. Shape: Narrow obovate. Base shape: Very elongated. Apex: Unequal mucronate. Leaf blade angle with the petiole (measured from the horizontal position): Between 0 degrees (see enclosure 1d.A) and 50 degrees. Leaf margin: Entire. Color: Upper surface: RHS 147A. Lower surface: RHS 147B. Texture: Rough. Thickness: 2.6 mm to 3.1 mm. Venation: Pattern: Parallel. Color of the midvein: Upper surface: RHS 146A. Lower surface: RHS 146B.

Peduncle:

Quantity per plant.—1 to 4.

Number of flowers per peduncle.—12 to 18.

Length.—47.0 cm to 52.0 cm.

Diameter.—6.2 mm to 6.5 mm.

Strength.—Strong.

Aspect.—Upright to pendent.

Texture.—Smooth.

Color.—Mix of brown (RHS 200A and 200B) and green (RHS 146B).

Internode length.—40.0 mm to 50.0 mm.

Callosities.—None.

Inflorescence description:

Appearance.—Upright to slightly pendant, raceme to panicle inflorescence with bilaterally symmetrical flowers that open in succession beginning with the lowermost flower.

Inflorescence size.—Height (from base to tip): 270.0 mm to 300.0 mm. Diameter: 3.9 mm to 4.2 mm.

Flowering time.—First flowers can be expected 10 to 11 months after planting in a 12 cm pot.

Flower.—Height: 72.0 mm to 77.0 mm. Diameter: 83.0 mm to 88.0 mm. Depth of lip: 17.0 mm to 19.0 mm.

Flower longevity.—On the plant: 9 to 10 weeks.

Fragrance.—Absent.

Flower bud.—Average size: Large. Length: 27.0 mm to 29.0 mm. Width: 20.0 mm to 22.0 mm. Shape: Egg shaped. Color: Mix of green (RHS 150C and 145B to 145C) and greyed-purple (RHS 185D and 186D).

Petals.—Arrangement: Open/free. Shape: Semi-circular. Apex: Rounded symmetric. Margin: Entire to weakly undulate. Length (from base to tip): 39.0 mm to 41.0 mm. Width: 44.0 mm to 46.0 mm. Color (when fully opened): Upper surface: Basic color: Yellow (RHS 4D) with small white center (RHS 155B). Over color: Absent. Lower surface: Basic color: Yellow (RHS 4D) with white/light purple towards the base (RHS 155B/76D). Over color: Absent.

Dorsal sepal.—Shape: Elliptic. Apex: Obtuse symmetric. Margin: Entire. Length (from base to tip): 44.0 mm to 46.0 mm. Width: 29.0 mm to 31.0 mm. Color (when fully opened): Upper surface: Basic color: Yellow (RHS 4D) and white towards the base (RHS 155B). Over color: Absent. Lower surface: Basic color: Yellow/green (RHS 4D and 1D). Over color: Light red-purple (RHS 65D).

Lateral sepals.—Shape: Ovate (see enclosure 4a). Apex: Obtuse symmetric. Margin: Entire. Length (from base to tip): 42.0 mm to 44.0 mm. Width: 27.0 mm to 29.0 mm. Color (when fully opened): Upper surface: Basic color: Green/yellow (RHS 1D) partially striped (RHS 61A) and dotted towards the base (RHS 59A). Over color: Absent. Lower surface: Basic color: Green/yellow (RHS 1D) and light

purple towards the base (RHS 75B). Over color: Light purple shade (RHS 75B) over sepal.

Labellum (lip).—Margin: Entire. Whiskers: Present. Length of whiskers: 17.0 mm to 19.0 mm. Color of whiskers: From apical lobe purple (RHS 78A) and red-purple (RHS 59A) with yellow tips (RHS 3A).
Pubescence on the lip: Absent.

Lateral lobe.—Shape: Type V (as described in the International Union for the Protection of New Varieties of Plants (UPOV) Test Guidelines for *Phalaenopsis*); spatulate (see enclosure 6a). Length: 19.0 mm to 21.0 mm. Width: 14.0 mm to 16.0 mm. Color: Purple (RHS 78A) and red-purple (RHS 59A) and at the base white (RHS 155C) and yellow (RHS 5A) striped (RHS 59A).

Apical lobe.—Shape: Triangular/trullate. Length: 19.0 mm to 21.0 mm. Width: 20.0 mm to 22.0 mm. Color: Red-purple (RHS 78A) and weakly yellow (RHS 3C) and greyed-red edge towards the callus (RHS 178A).

Callus.—Average size: Medium. Height: 0.6 cm to 0.7 cm. Length: 0.5 cm to 0.6 cm. Width: 0.4 cm to 0.5 cm. Color: Yellow (RHS 10B and 12C) dotted (RHS 175A).

Reproductive organs:

Arrangement.—The stamens, style and stigmas are fused into a single, short structure called the column, possessing one terminal anther with pollen grains united into pollinia, which are covered by an anther cap. The stigma is located under the column behind the pollinia. The ovary is inferior with three carpels present.

Column.—Length: 9.0 mm to 11.0 mm. Diameter: 5.0 mm to 5.5 mm. Color: White (RHS 155B).

Pollinia.—Quantity: 2. Size: 0.8 mm to 1.0 mm. Color: Orange (RHS 25A).

Ovary.—Part of the pedicel with small ribs towards the column. Length: 5.0 mm to 7.0 mm. Diameter: 2.0 mm to 2.3 mm.

Pedicel.—Length: 27.0 mm to 30.0 mm. Diameter: 2.4 mm to 2.7 mm. Color: Mix of green (RHS 146A and 145A to 145D) and light purple (RHS 78D).

Disease, pest, and stress resistance: No specific resistance or susceptibility observed.

Temperature tolerance: Tolerant to a low temperature of 15° C. and a high temperature of about 30° C.

COMPARISON WITH PARENTAL AND COMMERCIAL VARIETIES

‘PHALFYQDHA’ differs from female parent plant ‘06541-0001’ (unpatented) in that ‘PHALFYQDHA’ has a yellow flower with a center and a red-purple lip, whereas ‘06541-0001’ has a white flower that is even and a white and yellow lip. Additionally, ‘PHALFYQDHA’ has a smaller flower than ‘06541-0001’.

‘PHALFYQDHA’ differs from male parent plant ‘00001-1960’ (unpatented) in that ‘PHALFYQDHA’ has a lighter yellow flower color, a red-purple apical lobe of the lip, and longer whiskers of the lip, whereas ‘00001-1960’ has a darker yellow flower color, a dark red apical lob of the lip, and shorter whiskers of the lip.

‘PHALFYQDHA’ differs from commercial variety ‘PHALCUZOL’ (unpatented) in that ‘PHALFYQDHA’ has lateral sepals that are partially striped and dotted, a type V spatulate lateral lobe shape, and a medium callus, whereas ‘PHALCUZOL’ has lateral sepals with only a few stripes, a type IV weakly spatulate lateral lobe shape, and a small callus.

I claim:

1. A new and distinct variety of *Phalaenopsis* plant named ‘PHALFYQDHA’, substantially as described and illustrated herein.

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FIG. 1



FIG. 2



FIG. 3