



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

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(54) **PHALAEOPSIS ORCHID PLANT NAMED**
'ZOLA'

(50) Latin Name: *Phalaenopsis hybrida*
Varietal Denomination: **Zola**

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(57) **ABSTRACT**

A new and distinct *Phalaenopsis* plant named 'Zola' particularly characterized by flowers which are white with some yellow in the labellum; plants which may be propagated economically and uniformly using tissue culture; plants which produce more than one inflorescence; long and sturdy inflorescences; and relatively short, dark-green foliage.

3 Drawing Sheets

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Latin name of the genus and species of the plant claimed:
Phalaenopsis hybrida.

Variety denomination: 'Zola'.

BACKGROUND OF THE INVENTION

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

Phalaenopsis comprises a genus of about 55 species of herbaceous perennials many of which, or the hybrids thereof, are suitable for cultivation 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 5 to 8 inches to over 2 feet. 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 petal, called the labellum, is three-lobed and is 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

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off-shoots which frequently arise from the lower bracts of the inflorescence. The resulting plants are detached from the mother plant and may be planted in a suitable substrate.

The new *Phalaenopsis* 'Zola' is a product of a controlled breeding program conducted by the inventor, René Schoone, in Strengweg, Heemskerk, The Netherlands. The objective of the breeding program was to develop a new *Phalaenopsis* cultivar particularly characterized by its attractive and unique colored flowers, economical propagation via tissue culture, rapid growth, and a plant dimension suitable for packaging and shipping to the market.

The new *Phalaenopsis* 'Zola' originated from a cross made by the inventor in 1999 in Strengweg, Heemskerk, The Netherlands. The female or seed parent is the *Phalaenopsis* cultivar designated 'Promis', unpatented. The male or pollen parent is the *Phalaenopsis* cultivar designated '(amabilis×White CastlexMoon World)', unpatented. The new *Phalaenopsis* 'Zola' was discovered and selected by the inventor as a single flowering plant within the progeny of the stated cross in a controlled environment in 2007 in Strengweg, Heemskerk, The Netherlands.

Asexual reproduction of the new *Phalaenopsis* cultivar by tissue culture was first performed in November, 2007 in Cieweg 13, Heemskerk, The Netherlands, and has demonstrated that the combination of characteristics as herein disclosed for the new cultivar are firmly fixed and retained through successive generations of asexual reproduction. The new cultivar asexually reproduces true to type.

BRIEF DESCRIPTION OF THE INVENTION

The following traits have been repeatedly observed and are determined to be unique characteristics of 'Zola', which in combination distinguish this *Phalaenopsis* as a new and distinct cultivar:

1. flowers which are white with some yellow in the label-
lum;
2. plant produces more than one inflorescence;
3. plants may be propagated economically and uniformly
using tissue culture;
4. inflorescences are long and sturdy; and
5. relatively short, dark-green foliage.

In comparison with the parental cultivars of 'Zola', the flowers of the female parent 'Promis' are about 9 cm and the flowers of the male parent '(amabilis×White CastlexMoon World)' are about 11 cm, whereas the flowers of 'Zola' are about 8 cm.

Presently, the commercial cultivar to which 'Zola' can be meaningfully compared is 'Zippity' (U.S. Plant patent application Ser. No. 13/986,293). The flower of 'Zippity' is a little larger and the color of the labellum (next to the main color white) differs. 'Zippity' has green/yellow in the labellum with a little orange and red/purple stripes whereas 'Zola' has yellow/green with grey/orange which is more visible and purple stripes. Also differs the shape of the labellum and the size of the cirrhi.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs illustrate the overall appearance of the new *Phalaenopsis* 'Zola' showing the colors as true as is reasonably possible with 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 color of 'Zola'.

FIG. 1 shows a side view perspective of a typical flowering plant of 'Zola' in a 12 cm pot, at 16 months of age.

FIG. 2 shows a close-up view of the typical flower of 'Zola'.

FIG. 3 shows a close-up view of the typical leaves of 'Zola'.

DETAILED BOTANICAL DESCRIPTION

The new *Phalaenopsis* cultivar 'Zola' has not been observed under all possible environmental conditions. The phenotype of the new cultivar may vary with variations in environment such as temperature, light intensity, and day length without any change in the genotype of the plant.

The aforementioned photographs, together with the following observations, measurements and values describe plants of 'Zola' as grown in a greenhouse in Strengweg, Heemskerk, The Netherlands, under conditions which closely approximate those generally used in commercial practice. Initially, the ideal temperature to grow plants of 'Zola' is 27° C. during the day and at night. Then, during the flowering phase of 'Zola', the ideal growing temperature is 20-22° C. during the day and 18° C. at night. Light levels for growing 'Zola' are a minimum of 5,000 lux and a maximum of 10,000 lux. A balanced fertilizer with level of 200 ppm N, 87 ppm P, 168 ppm K is applied. Duration of growth of 'Zola' from potting size is between 10 and 14 months.

Color references are made to The Royal Horticultural Society Colour Chart (R.H.S.), 2007 edition, except where general colors of ordinary significance are used. Color values were taken under daylight conditions at approximately noon in Zaandammerweg, Assendelft, The Netherlands. The age of the 'Zola' plants described is 12 months after potting.

Classification:

Botanical.—*Phalaenopsis hybrida*.

Parentage:

Female or seed parent.—*Phalaenopsis* cultivar designated 'Promis', unpatented.

Male or pollen parent.—*Phalaenopsis* cultivar designated '(amabilis×White CastlexMoon World)', unpatented.

Propagation:

Type.—Tissue culture.

Rooting habit and description.—Fleshy; approximately 4 mm-7 mm wide and green (RHS 137C) and green/grey (RHS 189B) in color; freely branching. It takes 12 weeks for plants growing in tissue culture to initiate roots.

Plant:

Size at maturity.—Height (from bottom of pot to highest flower): about 57 cm. Spread: about 50 cm.

Growth habit.—Standard; dark green leaves (RHS 139A) and a relatively normal raceme.

Vigor.—Moderate.

Crop time.—Following asexual propagation, at about 26 weeks 2 leaves appear; at about 30 weeks 3-4 leaves appear; after a cold treatment of about 4-8 weeks at a temperature of about 19° C. about 1-3 racemes with flowers appear.

Foliage:

Quantity per plant.—About 6 to 8 leaves are produced before flowering.

Arrangement and attachment.—Half up/horizontal and on two sides.

Overall shape of leaf.—Oval, the tip is little pointy and asymmetric.

Texture (upper & underside).—Smooth and leathery.

Pubescence.—None.

Mature leaf length.—About 13 to 20 cm.

Mature leaf width.—About 6 to 9 cm.

Mature leaf thickness.—About 1.5 mm.

Mature leaf color.—Upper side: green (RHS 139A). Under side: yellow/green (RHS 138A).

Leaf base.—Acute.

Margin.—Entire.

Venation.—Pattern: parallel. Color of midvein: upper side: green (RHS N137B). Under side: green (RHS 138A) with dark edges (RHS N137B).

Inflorescence description:

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

Raceme:

Quantity per plant.—About 1 to 3.

Number of flowers per raceme.—About 10.

Length.—About 55 to 60 cm.

Peduncle.—Diameter: about 6 mm. Strength: strong. Aspect: upright. Texture: glabrous and smooth. Color: green (RHS 143B) with small dots green (RHS 143C).

Buds.—Height (from base to tip): about 25 mm. Diameter (at midpoint): about 25 mm. Shape: egg-shaped/oval. Color: green/yellow (RHS 145B).

Flowering time.—For an untreated plant (flowering plant that has not undergone cold-treatment where the plant grows at a temperature of 18° C. to 19° C. for about 4 to 8 weeks after a period of about 30 weeks at

a temperature of 25° C.), 1-3 racemes appear with flower buds and flowers. First flowers can be expected approximately 4 to 6 months after planting a plant with a leaf diameter of 3 to 5 cm. Flowers persistent.

Flowering longevity.—On the plant: about 4 to 6 months; lastingness of cut flowers: has not been observed.

Fragrance.—No fragrance.

Flower.—Rate of opening: Flowers fully opened about 2 to 3 days after petal and sepal separation. Orientation at opening: slanted upward and outward. Shape: Typical shape of phalaenopsis orchid; see FIG. 2. Size: Height: about 64 mm to 81 mm. Diameter: about 74 mm to 95 mm. Quantity and arrangement: three petals and three sepals that are trimerous, overlapping and arranged in 2 whorls. Petals are more pronounced than sepals.

Petals.—Arrangement: Inner whorl comprises 3 petals: 2 lateral petals and a labellum. 2 lateral petals: Overall shape: broadly ovate and weakly cupped. Apex: oval/round. Margin: entire and weakly undulate. Base: broadly ovate. Length: about 47 mm. Width: about 38 mm. Texture: Upper surface: smooth and satiny. Under surface: smooth and satiny. Color (when fully opened): Upper side: white (RHS NN155C). Under side: white (RHS NN155C). Labellum: Overall shape: 3-lobed with 2 prominent callosities at central junction of the lateral lobes and base of the midlobe. Lateral lobes of labellum fold upward about the column; the midlobe extends forward and is terminated by 2 filiform appendages at the apex. Lateral lobes of the labellum are ovate in shape while the midlobe is triangular with a bump and a rib on it. Margin: entire. Apex: oval. Length: about 20 mm. Width (not flattened): about 25 mm. Depth of tube created by lateral lobes of labellum: about 6 mm. Texture: Upper and under surface: smooth and satiny. Color (when fully opened): Midlobe: upper surface: Main color is white (RHS NN155C). At the base grey/orange and also a thin edge and a stripe in the center (RHS 166B). Left and right in the corners yellow/green (RHS 154B). Under surface: main color white (RHS NN155C). Edges at the base and at the base grey/orange (RHS 166B). In left and right corners a yellow/green haze (RHS 154B) and at the base also a little purple (RHS N81C). Lateral lobes: main color is white (RHS NN155C). Below a small grey/orange edge (RHS 166B) and some yellow/grey (RHS 154B). At the base two red/purple stripes (RHS 61A) and one orange/red stripe (RHS N34A) which runs into (RHS 61A).

Under surface: White (RHS NN155C) and below yellow/green (RHS 154B) with a very small grey/orange edge (RHS 166B). From base same grey/orange edge. Cirrhi: about 29 mm (long and curly with in the middle a small horn). Color: white (RHS NN155C). Pestle (Callosities): Length: about 7 mm. Width (not flattened): about 7 mm. Color: main color is white (RHS NN155C) edges and inside yellow (RHS 8A). Spots and stripes are orange/red (RHS N34A).

Sepals.—Arrangement: Outer whorl comprises 3 sepals, one dorsal and two lateral sepals. Overall shape: egg-shaped and weakly cupped. Margin: entire and weakly undulate. Length: about 39 mm. Width: about 25 mm. Apex: round with a little point. Lateral is sharper than dorsal. Texture: Upper and under surface: smooth and satiny. Color (when fully opened): upper side: the main color is white (RHS NN155C) with a green/white haze (RHS 157C). At the lateral sepals the haze is more visible than at the dorsal sepal. Under side: the main color is white (RHS NN155C) with a yellow/green haze (RHS 151D) except on the edges. Main color is more visible at the dorsal sepal than with the lateral sepals.

Pedice.—Length: about 38 mm. Diameter: about 4 mm. Texture: glabrous and smooth. Color: yellow/green (RHS 145A) runs into RHS 145B which runs into RHS 145D. Near the flower a haze of purple visible (RHS N78B).

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 a 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. The plant has not produced seed.

Column.—Length: about 10 mm. Diameter: about 7 mm. Color: white (RHS NN155C). Pollinia: Quantity: two. Diameter: about 1 mm. Color: orange (RHS 24A).

Ovary.—Length: about 4 mm. Diameter: about 5 mm. Color: white (RHS NN155C).

Disease/pest resistance/susceptibility: No specific resistance or susceptibility observed.

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

What is claimed is:

1. A new and distinct *Phalaenopsis* plant named 'Zola', as illustrated and described herein.

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FIG. 1



FIG. 2



FIG. 3

