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Koning

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(54) ***DIANTHUS* PLANT NAMED 'KOND1014K3'**

(50) Latin Name: ***Dianthus hybrida***
Varietal Denomination: **KonD1014K3**

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See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct cultivar of *Dianthus* plant named 'KonD1014K3', characterized by its compact, uniformly mounding and upright to somewhat outwardly spreading plant habit; dense and bushy appearance; dark green-colored leaves; freely and remontant flowering habit; light red purple-colored double flowers; vernalization treatment is not required for flowering; and good container and garden performance.

2 Drawing Sheets

1

Botanical designation: *Dianthus hybrida.*
Cultivar denomination: 'KonD1014K3'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Dianthus* plant, botanically known as *Dianthus hybrida*, grown commercially as a container and garden plant and hereinafter referred to by the name 'KonD1014K3'.

The new *Dianthus* plant is a product of a planned breeding program conducted by the Inventor in Westerbrok, The Netherlands. The objective of the breeding program is to create new hardy *Dianthus* plants with remontant flowering habit with good container and garden performance.

The new *Dianthus* plant originated from a cross-pollination in May, 2009 of a proprietary selection of *Dianthus hybrida* identified as code number Ut95, not patented, as the female, or seed, parent with a proprietary selection of *Dianthus hybrida* identified as code number D900, not patented, as the male, or pollen, plant. The new *Dianthus* plant was discovered and selected by the Inventor in July, 2010 as a single flowering plant from within the progeny of the stated cross-pollination in a controlled environment in Westerbrok, The Netherlands.

Asexual reproduction of the new *Dianthus* plant by vegetive terminal cuttings propagated in a controlled greenhouse environment in Chicago, Ill. since September, 2010 has shown that the unique features of this new *Dianthus* plant are stable and reproduced true to type in successive generations of asexual reproduction.

SUMMARY OF THE INVENTION

Plants of the new *Dianthus* have not been observed under all possible combinations of environmental conditions and cultural practices. The phenotype may vary somewhat with variations in environmental conditions such as temperature 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 'KonD1014K3'. These characteristics in combination distinguish 'KonD1014K3' as a new and distinct *Dianthus* plant:

1. Compact, uniformly mounding and upright to somewhat outwardly spreading plant habit; dense and bushy appearance.
2. Dark green-colored leaves.
3. Freely and remontant flowering habit.
4. Light red purple-colored double flowers.
5. No vernalization requirement for flowering.
6. Good container and garden performance.

Plants of the new *Dianthus* differ primarily from plants of the female parent selection in the following characteristics:

1. Leaves of plants of the new *Dianthus* are darker green than leaves of plants of the female parent selection.
2. Plants of the new *Dianthus* have larger flowers than plants of the female parent selection.
3. Plants of the new *Dianthus* flower for a longer period of time than plants of the female parent selection.

Plants of the new *Dianthus* differ primarily from plants of the male parent selection in the following characteristics:

1. Plants of the new *Dianthus* are not as vigorous as plants of the male parent selection.
2. Plants of the new *Dianthus* and the male parent selection differ in flower type as plants of the male parent selection have single-type flowers.

Plants of the new *Dianthus* can also be compared to plants of *Dianthus caryophyllus* 'Kahori', not patented. In side-by-side comparisons, plants of the new *Dianthus* differ primarily from plants of 'Kahori' in the following characteristics:

1. Plants of the new *Dianthus* are more uniform than plants of 'Kahori'.
2. Plants of the new *Dianthus* and 'Kahori' differ in flower type as plants of 'Kahori' have single-type flowers.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs illustrate the overall appearance of the new *Dianthus* plant 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 *Dianthus* plant.

The photograph on the first sheet is a side perspective view of a typical flowering plant of 'KonD1014K3' grown in a container.

The photograph on the second sheet is a close-up view of a typical flowering plant of 'KonD1014K3'.

DETAILED BOTANICAL DESCRIPTION

Plants used in the aforementioned photograph and following observations and measurements were grown during the winter and spring in one-gallon containers in a glass-covered greenhouse in Elburn, Ill. and under cultural practices typical of commercial container *Dianthus* production. During the final production phase of the plants, day temperatures ranged from 18° C. to 21° C. and night temperatures ranged from 13° C. to 16° C. Plants were pinched two times during the propagation phase and were eight months old when the photographs and description were taken. In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2007 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Dianthus hybrida* 'KonD1014K3'.

Parentage:

Female, or seed, parent.—Proprietary selection of *Dianthus hybrida* identified as code number Ut95, not patented.

Male, or pollen, parent.—Proprietary selection of *Dianthus hybrida* identified as code number D900, not patented.

Propagation:

Type.—By vegetative terminal cuttings.

Time to initiate roots, summer.—About one week at temperatures ranging from 20° C. to 21° C.

Time to initiate roots, winter.—About two weeks at temperatures about 20° C. to 21° C.

Time to produce a rooted young plant, summer and winter.—About six to seven weeks at temperatures ranging from 7° C. to 16° C.

Root description.—Fine, fibrous; white in color, actual color of the roots dependent on substrate composition, water quality, fertilizer, substrate temperature and age of roots.

Rooting habit.—Freely branching; medium density.

Plant description:

Plant and growth habit.—Herbaceous perennial, typically grown as a container and garden plant; compact, uniformly mounding, upright to somewhat outwardly spreading plant habit; vigorous growth habit.

Plant height, soil level to top of foliar plane.—About 15 cm.

Plant height, soil level to top of floral plane.—About 12.5 cm.

Plant diameter or spread.—About 25 cm.

Lateral branches.—Branching habit: Freely basal branching habit with numerous primary lateral stems; each primary lateral stem with secondary lateral stems potentially forming at every node. Length, primary lateral stems: About 14.5 cm. Length, secondary lateral stems: About 7 cm to 12 cm. Diameter, primary lateral stems: About 2 mm. Diameter, secondary lateral stems: About 1 mm. Internode length, proximally: About 1 cm. Strength: Strong, flexible. Aspect, primary lateral stems: Outward then curving upright. Aspect, secondary lateral stems: About 30° from primary lateral stem axis. Cross-section: Round, solid. Texture and luster: Smooth, glabrous; matte. Color: Close to 146A.

Leaf description:

Arrangement.—Opposite, simple; sessile.

Length.—About 3.5 cm.

Width.—About 3 mm.

Shape.—Lanceolate.

Apex.—Narrowly acute.

Base.—Attenuate; decurrent.

Margin.—Entire.

Texture and luster, upper and lower surfaces.—Smooth, glabrous; matte.

Venation pattern.—Parallel.

Color.—Developing leaves, upper surface: Close to 137A to 137B. Developing leaves, lower surface: Close to 137A. Fully expanded leaves, upper surface: Close to N137A; very thin waxy cuticle, close to 189A; venation, close to N137A. Fully expanded leaves, lower surface: Close to N137A to N137B; very thin waxy cuticle, close to 189A; venation, close to N137A to N137B.

Flower description:

Flower form and flowering habit.—Terminal and axillary double flowers arranged singly or in pairs; freely flowering habit with numerous flowers developing during the flowering season; flowers face mostly upright to slightly outwardly.

Natural flowering season.—Consistent remontant flowering habit from the early spring until the autumn in northern Illinois; plants do not require a vernalization treatment to initiate flowering.

Fragrance.—Fragrant; clove-like, sweet.

Flower buds.—Length: About 1.4 cm. Diameter: About 4 mm. Shape: Oblong; styles not extruded. Texture and luster: Smooth, glabrous; matte. Color: Close to 59A; towards the base, close to 146A.

Flower diameter.—About 1.6 cm.

Flower depth.—About 1.8 cm.

Petals and petaloids.—Quantity and arrangement: About 10 to 15 petals/petaloids arrange in about two to three whorls. Length: About 1.7 cm. Width: About 5 mm to 6 mm; at the base, about 1 mm. Shape: Spatulate, fan-shaped. Apex: Praemorse. Base: Elongated, tapering to a point. Margin: Entire. Texture and luster, upper and lower surfaces: Smooth, glabrous; velvety; matte. Color: When opening, upper surface: Close to 71A and 72A; towards the base and throat, close to NN155C. When opening, lower surface: Close to 72A to 72B. Fully opened, upper surface: Close to 71A and 72A; towards the base and throat, close to NN155C; venation, similar to lamina; with development, main color becoming closer 75A to 75B. Fully opened, lower surface: Close to 72B; tube, close to NN155C; venation, similar to lamina; with development, main color becoming closer to 75C.

Sepals.—Quantity and arrangement: Five sepals arranged in a single whorl; proximal 75% portion of the sepals are fused into a tubular-shaped calyx.

Length: About 1.6 cm. Sepal width, at base of "free" portion: About 2.5 mm. Shape: Oblong. Apex: Acute. Margin: Entire. Texture and luster, upper and lower surfaces: Smooth, glabrous; matte. Color, inner surface: Close to 144A. Color, outer surface: Close to 59A; towards the base, close to 146A.

Peduncles.—Length: About 3.75 cm. Diameter: About 1.5 mm. Strength: Strong, flexible and wiry. Aspect: Mostly erect. Texture and luster: Smooth, glabrous; matte. Color: Close to N137A.

Pedicels (*when flowers arranged in pairs*).—Length: About 2.5 cm. Diameter: About 1 mm. Strength: Strong, flexible and wiry. Aspect: About 30° from the peduncle axis. Texture and luster: Smooth, glabrous; matte. Color: Close to N137A.

Reproductive organs.—Stamens: Quantity: About five stamens per flower. Filament length: About 6 mm to 7 mm. Filament color: Close to NN155C. Anther length: About 1 mm. Anther shape: Oblong. Anther color: Close to 10D. Pollen: None observed. Pistils: Quantity: About two per flower. Pistil length: About 1.7 cm. Stigma shape: Pointed, curled. Stigma color: Close to NN155C. Style length: About 9 mm. Style color: Close to NN155C. Ovary shape: Oblong. Ovary texture: Smooth, glabrous. Ovary color: Close to 144A. Fruits and seeds: Fruit and seed development have not been observed on plants of the new *Dianthus* to date.

Disease & pest resistance: Plants of the new *Dianthus* have not been observed to be resistant to pathogens and pests common to *Dianthus* plants.

Garden performance: Plants of the new *Dianthus* have been observed to have good garden performance and to tolerate wind, rain and to be suitable for USDA Hardiness Zones 5a to 9a.

It is claimed:

1. A new and distinct *Dianthus* plant named 'KonD1014K3' as illustrated and described.

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