US00PP17538P2

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

(10) **Patent No.: US PP17,538 P2**
(45) **Date of Patent: Mar. 27, 2007**

(54) **CARNATION PLANT NAMED 'YODER FLASH'**

(50) Latin Name: ***Dianthus caryophyllus***
Varietal Denomination: **Yoder Flash**

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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 0 days.

(21) Appl. No.: **11/212,364**

(22) Filed: **Aug. 26, 2005**

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

(52) **U.S. Cl.** **Plt./283**
(58) **Field of Classification Search** Plt./283
See application file for complete search history.

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(57) **ABSTRACT**

A distinct cultivar of Carnation plant named 'Yoder Flash', characterized by its bright red-colored flowers; strong flowering stems; strong calyxes that resist splitting; good post-production longevity with flowers maintaining good substance and color for about ten days in an interior environment after shipping; and resistance to *Fusarium oxysporum*.

2 Drawing Sheets

Botanical designation: *Dianthus caryophyllus.*
Cultivar denomination: 'Yoder Flash'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of Carnation plant, botanically known as *Dianthus caryophyllus* and hereinafter referred to by the name 'Yoder Flash'.

The new Carnation is a product of a planned breeding program conducted by the Inventor in Salinas, Calif., and Madrid, Cundinamarca, Colombia, South America. The objective of the breeding program is to create new cut Carnation cultivars having long flowering stems, early flowering, attractive flower color and good flower form and substance.

The new Carnation originated from a cross-pollination made by the Inventor in 1997, in Salinas, Calif., of the Carnation cultivar Nelson, not patented, as the female, or seed, parent, with the Carnation cultivar Bourbon Street, disclosed in U.S. Plant Pat. No. 10,063, as the male, or pollen, parent.

The cultivar Yoder Flash was discovered and selected by the Inventor as a flowering plant within the progeny of the stated cross-pollination in a controlled environment in Madrid, Cundinamarca, Colombia, South America in July, 1998. The selection of this plant was based on its flower color and good flower form and substance.

Asexual reproduction of the new Carnation by terminal cuttings in Madrid, Cundinamarca, Colombia, South America since August, 1998, has shown that the unique features of this new Carnation are stable and reproduced true to type in successive generations.

SUMMARY OF THE INVENTION

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

The following traits have been repeatedly observed and are determined to be the unique characteristics of 'Yoder Flash'. These characteristics in combination distinguish 'Yoder Flash' as a new and distinct cultivar of Carnation:

1. Bright red-colored flowers.
2. Strong flowering stems.
3. Strong calyxes that resist splitting.
4. Good postproduction longevity with flowers maintaining good substance and color for about ten days in an interior environment after shipping.
5. Resistant to *Fusarium oxysporum.*

Plants of the new Carnation can be compared to plants of the female parent, the cultivar Nelson. In side-by-side comparisons conducted in Madrid, Cundinamarca, Colombia, South America, plants of the new Carnation and cultivar Nelson differed in the following characteristics:

1. Plants of the new Carnation were about 5 to 105 cm taller than plants of the cultivar Nelson.
2. Plants of the new Carnation had slightly larger flowers than plants of the cultivar Nelson.
3. Plants of the new Carnation were more resistant to *Fusarium oxysporum* than plants of the cultivar Nelson.

Plants of the new Carnation can be compared to plants of the male parent, the cultivar Bourbon Street. In side-by-side comparisons conducted in Madrid, Cundinamarca, Colombia, South America, plants of the new Carnation and the cultivar Bourbon Street differed in the following characteristics:

1. Plants of the new Carnation were about 5 to 10 cm taller than plants of the cultivar Bourbon Street.
2. Plants of the new Carnation flowered about one week later than plants of the cultivar Bourbon Street.
3. Plants of the new Carnation had brighter red-colored flowers than plants of the cultivar Bourbon Street.

Plants of the new Carnation can also be compared to plants of the cultivar Tanga, not patented. In side-by-side comparisons conducted in Madrid, Cundinamarca, Colombia, South America, plants of the new Carnation and the cultivar Tanga differed in the following characteristics:

1. Plants of the new Carnation flowered about two weeks earlier than plants of the cultivar Tanga.
2. Plants of the new Carnation were more freely flowering than plants of the cultivar Tanga.
3. Plants of the new Carnation had stronger calyxes than plants of the cultivar Tanga.
4. Plants of the new Carnation were more resistant to *Fusarium oxysporum* than plants of the cultivar Tanga.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the overall appearance of the new Carnation, 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 Carnation.

The photograph on the first sheet comprises a side perspective view of a typical flowering stem of 'Yoder Flash' grown as a disbud or standard-type cut Carnation.

The photograph on the second sheet comprises a close-up view of a typical flower of 'Yoder Flash'.

DETAILED BOTANICAL DESCRIPTION

In the following description, color references are made to The Royal Horticultural Society Colour Chart, 1995 Edition, except where general terms of ordinary dictionary significance are used. The following observations and measurements describe plants grown in Madrid, Cundinamarca, Colombia, South America under conditions which approximate commercial practice in a single-layer polyethylene-covered greenhouse. Four-week old rooted cuttings were planted in ground beds and pinched about three to four weeks later. During the production time, day temperatures ranged from 19° C. to 24° C.; night temperatures ranged from 4° C. to 12° C.; and light levels ranged from 3,000 to 5,000 foot-candles. Measurements and numerical values represent averages for six to ten typical flowering stems about 27 weeks after planting.

Botanical classification: *Dianthus caryophyllus* cultivar Yoder Flash.

Commercial classification: Disbud or standard-type cut Carnation.

Parentage:

Female, or seed, parent.—*Dianthus caryophyllus* cultivar Nelson, not patented.

Male, or pollen, parent.—*Dianthus caryophyllus* cultivar Bourbon Street, disclosed in U.S. Plant Pat. No. 10,063.

Propagation:

Type.—Terminal tip cuttings.

Time from sticking unrooted cuttings to planting.—About four weeks.

Root description.—Fine, freely-branching.

Plant description:

Flowering stem description.—Length: About 91 cm. Diameter: About 6.5 mm. Aspect: Erect. Strength: Very strong, flexible. Internode length: About 7.3 cm. Texture: Smooth, glabrous; waxy. Color: Close to 147A, overlain with waxy bloom, close to 188A to 188C.

Foliage description.—Arrangement: Opposite; sessile. Aspect: Concave; mostly upright to eventually reflexing and curling. Length: About 16.5 cm. Width: About 7.5 mm. Shape: Linear. Apex: Sharply acute to acuminate. Base: Clasping. Margin: Entire. Texture, upper and lower surfaces: Tough, leathery; waxy. Venation: Parallel. Color: Developing foliage, upper and lower surfaces: Close to 147A, overlain with waxy bloom, close to 188A to 188B. Fully developed foliage, upper and lower surfaces: Close to 147A, overlain with waxy bloom, close to 188A to 188B. Venation, upper and lower surfaces: Similar to lamina.

Flowering description:

Appearance.—Large single hemispherical flowers; typically grown as a disbud or standard-type with one flower per stem.

Flowering response.—Year-round under greenhouse conditions; plants flower about 27 weeks after planting rooted cuttings.

Postproduction longevity.—Good postproduction longevity with flowers maintaining good substance and color for about ten days in an interior environment after shipping. Flowers persistent.

Fragrance.—Slightly to moderately fragrant; spicy, clove-like.

Flower size.—Diameter: About 6.3 cm. Depth (height): About 4.8 cm.

Petals/petaloids.—Quantity per flower: About 64, imbricate. Length: About 5.1 cm. Width: About 2.4 cm. Shape: Roughly spatulate to fan-shaped. Apex: Roughly rounded; finely serrated giving a fringed appearance; undulate. Lateral margins: Entire to serrate. Texture, upper and lower surfaces: Smooth, glabrous; velvety. Color: When opening and fully opened, upper surface: Closest to 53A. When opening and fully opened, lower surface: Closest to 53A.

Sepals.—Quantity: About five, fused. Length: About 3.6 cm. Calyx diameter: Apex: About 2.2 cm. Base: About 1.5 cm. Shape: Roughly linear. Apex: Acuminate. Texture, upper and lower surfaces: Tough, leathery; smooth; waxy, longitudinally ridged. Resistance to splitting: Very good, calyxes resist splitting. Color: Upper surface: Close to 195B. Lower surface: Close to 144A to close to 146A.

Reproductive organs.—Androecium: Stamen number: About six. Anther length: About 2 mm. Anther shape: Oblong. Anther color: Close to 158A. Pollen: None observed. Gynoecium: Pistil quantity: About two. Style length: About 1.4 cm. Style color: Close to 155D. Stigma shape: Linear. Stigma color: Close to 155D. Ovary size: About 1 cm by 7.5 mm. Ovary color: Base, close to 155D; apex, close to 151D.

Seed/fruit.—Seed and fruit production have not been observed.

Disease/pest resistance: Plants of the new Carnation planted in soils heavily infested with *Fusarium oxysporum* have been observed to be highly resistant to *Fusarium oxysporum.* Plants of the new Carnation have not been observed to be resistant to other pathogens and pests common to Carnations.

It is claimed:

1. A new and distinct cultivar of Carnation plant named 'Yoder Flash', as illustrated and described.

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