



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

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(54) **CARNATION PLANT NAMED ‘YODER TOP’**

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

(75) Inventor: **Cornelis P. Vandenberg**, Fort Myers,
FL (US)

(73) Assignee: **Yoder Brothers, Inc.**, Barberton, OH
(US)

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

Primary Examiner—Kent Bell

(74) *Attorney, Agent, or Firm*—C. A. Whealy

(57) **ABSTRACT**

A distinct cultivar of Carnation plant named ‘Yoder Top’, characterized by its large red-colored flowers; strong and thick flowering stems; strong calyxes that resist splitting, good postproduction 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

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Botanical designation: *Dianthus caryophyllus*.
Cultivar denomination: ‘Yoder Top’.

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 Top’.

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 a proprietary selection of Carnation identified as code number 1029, not patented, as the female, or seed, parent, with a proprietary selection of Carnation identified as code number 0365, not patented, as the male, or pollen, parent.

The cultivar Yoder Top 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, Columbia, 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 Top 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.

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

1. Large red-colored flowers.
2. Strong and thick 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 selection. In side-by-side comparisons conducted in Madrid, Cundinamarca, Columbia, South America, plants of the new Carnation and female parent selection differed in the following characteristics:

1. Plants of the new Carnation were about 15 cm taller than plants of the female parent selection.
2. Plants of the new Carnation flowered about one week earlier than plants of the female parent selection.

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

1. Plants of the new Carnation were about 5 to 10 cm taller than plants of the male parent selection.
2. Plants of the new Carnation flowered about one week later than plants of the male parent selection.
3. Plants of the new Carnation had darker red-colored flowers than plants of the male parent selection.

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

1. Plants of the new Carnation were about 15 to 20 cm taller than plants of the cultivar Nelson.

2. Plants of the new Carnation had thicker and stronger flowering stems than plants of the cultivar Nelson.
3. Plants of the new Carnation flowered about one week later than plants of the cultivar Nelson.
4. Flowers of plants of the new Carnation had better form than flowers of plants of the cultivar Nelson.
5. Plants of the new Carnation were more resistant to *Fusarium oxysporum* than plants of the cultivar Nelson.

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 Top' 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 Top'.

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 28 weeks after planting.

Botanical classification: *Dianthus caryophyllus* cultivar Yoder Top.

Commercial classification: Disbud or standard-type cut Carnation.

Parentage:

Female, or seed, parent.—Proprietary selection of *Dianthus caryophyllus* identified as code number 1029, not patented.

Male, or pollen, parent.—Proprietary selection of *Dianthus caryophyllus* identified as code number 0365, not patented.

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 98 cm. Diameter: Thick, about 8 mm. Aspect: Erect. Strength: Very strong, flexible. Internode length: About 8.2 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 18.5 cm. Width: About 1 cm. Shape: Linear. Apex: Sharply acute to acuminate. Base: Claspings. 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 28 weeks after planting rooted cuttings.

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

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

Flower size.—Diameter: About 6.8 cm. Depth (height): About 4.75 cm.

Petals/petaloids.—Quantity per flower: About 72, imbricate. Length: About 5.5 cm. Width: About 2.5 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: Close to 45A to 53A. When opening and fully opened, lower surface: Close to 45A to 53A.

Sepals.—Quantity: About five to six, fused. Length: About 3.25 cm. Calyx diameter: Apex: About 2.3 cm. Base: About 1.8 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 to 146B.

Reproductive organs.—Androecium: Stamen number: About six. Anther length: About 2.5 mm. Anther shape: Oblong. Anther color: Close to 158A. Pollen: None observed. Gynoecium: Pistil quantity: Above five. Style length: About 2 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 Top', as illustrated and described.

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