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B2566 Carrot Inbred

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Flavor is an important factor in establishing consumer preference of carrots. Although harsh, strong flavor frequently occurs in available cultivars, the dominance of mild flavor in hybrids from harsh and mild parents suggests that carrot flavor can be improved rapidly when mild-flavored inbreds are available (1). Carrot inbred B2566 has been selected as a source of improved flavor and was used as a male parent in experimental hybrids tested in California, Florida, and Wisconsin. B2566 has demonstrated good combining ability for important fresh market characteristics of color, shape, and seed productivity along with desirable mild, sweet flavor and succulent texture. Because of these qualities, B2566 is being released jointly by the USDA, the Univ. of Florida, and the Univ. of California.

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Origin

B2566 was derived from a cross made in 1978 at the Univ. of Wisconsin between two lines: B9304, a medium orange, very mild-flavored, and succulent Chantenay-type; and B3615, a dark orange, very harsh-flavored Imperator type. In the F_2 population of ≈150 plants, which segregated for flavor and texture, two of 18 roots tested for flavor were mild, succulent, sweet, and of acceptable market type and orange color. These two roots were self-pollinated. Selection in the F_3 was for flavor, texture, color, and the cylindrical, blunt shape typical of the Nantes cultivar. A three-plant mass pollination from the better F_3 roots produced seed for field row 2566 in Florida and California. Now, at F_3M_5, B2566 is the result of four cycles of recurrent selection for culinary quality, color, and root shape.

Description

Mature roots of B2566 are 3 cm in diameter at the crown and 15 to 20 cm long, slightly tapered, moderately blunt, succulent, sweet, and mild in flavor. There is a tendency to produce multiple-tops and red (anthocyanin) crown color in the inbred, but this is largely suppressed in hybrid combinations. In 1984 and 1985, the average total carotene content of roots tested was 100 to 120 ppm, compared with 80 ppm for Imperator 58. B2566 produces ample pollen and has been a good seed-yielding inbred on a wide range of male-sterile parents in seed plots grown in major carrot seed-producing areas. B2566 has demonstrated no evidence for restoration of male-fertility in test crosses with sterile parents. A companion cyto-sterile is being developed.

Availability

Inquiry regarding seed availability for carrot inbred B2566 should be directed to P.W.S.

Literature Cited

1. Simon, P.W., C.E. Peterson, and R.C. Lindsay. 1981. The improvement of flavor in a program of carrot genetics and breeding, p. 109–118. In: R. Teranishi and H. Barrera-Benitez (eds.). Quality of selected fruits and vegetables of North America, American Chemical Society, Washington, D.C.

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'Orlando Seedless' Grape

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'Orlando Seedless', the first seedless grape with resistance to Pierce's disease (PD), has been released by the Univ. of Florida (Fig. 1). It was developed from the grape breeding program at the Agricultural Research and Education Center in Leesburg (3). 'Orlando Seedless' is productive and long-lived in Florida, and was unaffected by the recent cold winters in Florida (−10°C) that killed citrus and damaged muscadine grapes (*Vitis rotundifolia*).

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Origin

'Orlando Seedless' originated from a 1973 cross between Fla. D4-176 (a purple, high-quality seeded selection) and Fla. F9-68 (a near-seedless, golden-fruited, productive selection) (Fig. 2). 'Orlando Seedless' was transplanted to the vineyard in 1975, but grew slowly for lack of irrigation and first fruited in 1980. It was propagated in 1981 for testing as Fla. BD8-77.

Description

The vines of 'Orlando Seedless' are moderately vigorous when self-rooted, but are more vigorous when grafted on 'Tampa' rootstock (2). Budbreak is early, sometimes resulting in damage to tender growth from spring frost. Leaves are shaped like 'Perlette', one of the grandparents, but with heavier tomentum on the lower surface. Growth habit is erect. Wood matures evenly and thus escapes early winter freeze damage.

Flowers are self-fertile. Clusters weigh an average of 139 g and are moderately loose, shouldered, with tapering tips. Fruit color is light green, with even ripening, round, slip-skin berries maturing ≈1 July at Leesburg (Table 1). Berries weigh an average 1.4 g each. 'Orlando Seedless' has fleshy, edible seed traces that only occasionally are gritty and objectionable. Timely sprays with gibberellin tend to eliminate gritty seed traces