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'UFQueen' Nectarine

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'UFQueen' is an attractive, high quality, yellow and nonmelting flesh nectarine released by the Florida Agricultural Experiment Station for commercial trial for the fresh market. 'UFQueen' produces fruit with a tree ripened flavor while retaining firmness for a longer shelf life than fruit from conventional melting flesh, fresh market varieties (1, 2).

'UFQueen' originated from complex parentage (Fig. 1) with its nonmelting character coming from a North Carolina peach selection, NCA2219, which was apparently heterozygous for the nonmelting allele. 'UFQueen' was selected in 1994, tested as 94-28cn in Gainesville, Florida and southern Spain, and released following the 1998 crop.

The major advantages of 'UFQueen' are a low chilling requirement, early ripening, a nonmelting flesh, and an attractive red skin over a bright yellow ground color. Trees are estimated, based on bloom dates with standard cultivars, to require 250 chill units or about the same as 'Sunraycer' nectarine. Trees have fruited where the coldest month averages 15 to 16C and in colder locations in the absence of spring freezes following bloom. This corresponds to the area just south of Ocala to Orlando, Florida. Full bloom generally occurs in early February and fruit ripens about 95 days from bloom or in Mid-May in Florida and about a week after 'Sunraycer.' Trees are semi upright and are easily spread to an open center with pruning. Trees set a high number of flower buds, have few blind nodes, and exhibit little bud drop.

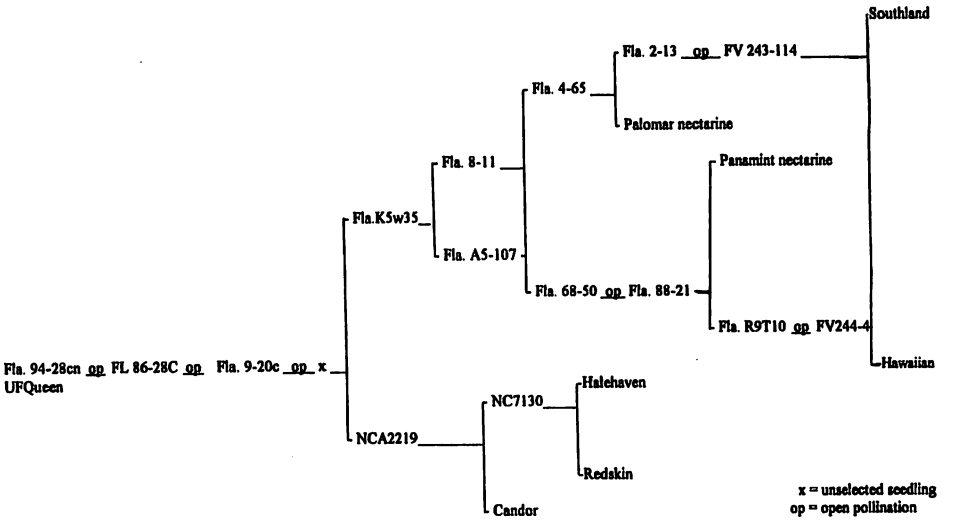

Figure 1. Parentage of 'UFQueen.'

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Fruit of 'UFQueen' average between 110 to 125 grams each which equates to 2 1/4 to 2 1/2 inches diameter. Fruit are slightly oval with no suture bulge and a slight tip. Skin color is 80 to 100% red and the nonmelting flesh contains little red throughout even at the clingstone pit. Pits have shown no tendency to split even when crop loads were low. Overripe fruit develop a slight but not severe off flavor, characteristic of many nonmelting flesh processing peaches. Flesh is sweet and aromatic with low to moderate acidity. No skin cracking has been observed even when ripening occurred with rain.

Leaves have 2 to 4 small reniform leaf glands. Flowers are nonshowy and pink. Anthers are light red to yellow and pollen is abundant. Leaves and fruit have moderate resistance (similar to Flordaking) to bacterial spot incited by *Xanthomonas campestris* pv. *pruni*.

A plant patent has been filed for 'UFQueen' and a propagation agreement is available through Florida Foundation Seed Producers, Inc., P.O. Box 309, Greenwood, FL 32443. Budwood is non-indexed, but the stonefruit breeding program budwood has been found to be mostly virus free in countries that routinely index in quarantine.

Literature Cited

1. Brovelli, E. A., J. K. Brecht, W. B. Sherman and C. A. Simms. 1995. Quality profile of fresh market melting and nonmelting peach fruit. Proc. Fla. State Hort. Soc. 108:309-311.
2. Brovelli, E. A., J. K. Brecht, W. B. Sherman and C. A. Simms. 1998. Potential maturity indices and developmental aspects of melting flesh and nonmelting flesh peach genotypes for the fresh market. J. Amer. Soc. Hort. Sci. 123:438-444.

Call for Papers
U. P. HEDRICK AWARDS

A cash award of $300 with mounted certificate will be awarded the winning paper. Papers should be submitted to Dr. Robert Crassweller, Horticulture Department, Penn State University, University Park, PA 16083 by May 30, 1999. See the journal for editorial style; paper length about 1000 words or 3 to 4 pages total. Pages can relate to any research aspect with fruit cultivars or rootstocks as influenced by environmental or cultural techniques. Breeding or the history or performance of new or old cultivars can be reviewed. Research and review papers will be judged separately.

Nitrogen Partitioning in Apple

Labeled N applied in March was allocated preferentially to the fruit, leaves, shoots and branches and to a lesser extent to the roots. Leaves on young shoots had more N label than leaves on older shoots and spurs which indicates increasing dependence of the tree on soil N from spring to summer. The amount of N allocated to above ground tissue decreased as the season progressed. Very little N from the August application reached leaves, fruit, buds or branches but roots were heavily labeled and this label was found in the following season's fruit, leaves and shoots. Losses of labeled N from the August application in fruit removal, leaf fall and pruning were minimal suggesting a high utilization efficiency. A September spray application was low in all tissues. Spur 'Delicious' had higher N than standard habit 'Delicious' which appeared to be related to tree size. Spur type trees may recycle N more efficiently and may be more subject to the adverse affects of fertilization. From Khemira et al. 1998. J. Hort. Sci. And Biotech 73(2):217-223.