Fruit Varieties Journal 45(4):190-192 1991

'Springcrest' Peach

W. R. Okie[1] and S. C. Myers[2]

Introduction

'Springcrest' peach represented a breakthrough for commercial peach production because of its combination of early maturity, size, attractiveness, quality, firmness and shipping ability. Commercially introduced in 1969, it has dominated the early market for nearly two decades in California and much of the world because of its superior characteristics. 'Springcrest' has been California's leading cultivar in terms of total acreage, and represented the fourth leading cultivar in total production out of 78 listed cultivars in 1990 (CFTA Report, 1990). It became California's number one cultivar in 1979 and remained so until 1983, when surpassed by the late season peach 'O'Henry.' Since 1979, 'Springcrest' and its mutations have accounted for 8 to 15% of the total fresh peach production in California. In 1988 they accounted for 15% of the freestone peach acreage (Cal. Ag. Stat. Serv., 1988). It has also been a successful cultivar in Europe and in South America. In Italy, 'Springcrest' represented 13% of the total 1986 production, second only to 'Redhaven.' It is also a leading early production cultivar in France. Ironically, in Georgia where it originated, 'Springcrest' has ranked in the top ten over the last 20 years but has not been as predominant as it has been in other areas.

'Springcrest' has also been a major source of new cultivars as a direct parent in breeding and as a source of bud sports (Table 1). In recent years several 'Springcrest' sports, mostly slightly earlier maturing, have been gaining in importance. All of the sports in Table 1 originated in California except for 'Starcrest' and 'Cristel' which are from France and 'Early Crest' which is from Italy.

Because of its major impact on commercial peach production worldwide and on the introduction of new cultivars, 'Springcrest' was awarded the *Outstanding Cultivar Award* in 1990 by the American Society for Horticultural Science. The medal is inscribed with the names of both V. E. Prince and J. H. Weinberger to commemorate their roles in developing the peach. Not since the days of 'Redhaven' (Iezzoni, 1987) and before that 'Elberta' (Myers et al., 1989) has a single cultivar had such a significant impact on peach production.

'Springcrest,' tested as FV9-170, resulted from a cross of FV89-14 x Springtime (Figure 1) made in 1958 by the late Victor E. Prince at the USDA Horticultural Field Station in Fort Valley, Georgia (now located at Byron, Georgia). 'Springcrest' is a descendant of 'Elberta' peach, a seedling selection from Georgia that has also had a significant influence on peach production in the past (Myers et al., 1989). Parent FV89-14 is of particular interest, because it is also a parent of 'Springold,' 'Camden' and 'Starlite'; and grandparent of 'Sunprince' (Okie et al., 1985). FV89-14 was also used in California as a parent of 'Fayette' and 'Flavorcrest' and as a grandparent of 'Flamecrest' and 'Goldcrest.' FV89-14 has produced progeny with a wide

[1]Research Horticulturist, UDSA, Southeastern Fruit and Tree Nut Research Laboratory, P.O. Box 87, Byron, GA 31008.
[2]Associate Professor of Horticulture, Department of Extension Horticulture, University of Georgia, Athens, GA 30602.

Table 1. Important bud mutations and progeny of 'Springcrest' peach and their 1990 production in California. Package size is 10 kg. (CFTA, 1990).

Cultivar	Type[z]	Production (1,000 packages)
Springcrest	M	874
Maycrest	M	759
Queencrest	MM	207
Raycrest	M	135
Goldencrest	S	30
Morning Sun	M	29
Early Maycrest	MM	27
Ambercrest	S	18
Earlicrest	M	13
Ruby May	M	1
Early Crest (=San Isidoro)	M	—
Firecrest	M	—
Starcrest (=Chastar)	M	—
Cristel (=Primecrest)	M	—
Crimson Lady	S	—
Crown Princess	S	—

[z]M = mutation, S = seedling, MM = Maycrest mutation.

range of maturity, from May through September, but because of bacterial spot susceptibility was never named and released. FV89-14 resulted from a cross (Fireglow x Hiley) x Fireglow made by J. H. Weinberger in 1941 while he was located at Fort Valley.

'Springcrest' first fruited in 1961 and was selected in that year for testing by Prince. It was tested at some 12 state experiment stations in the Southeast. In addition, extensive testing was done in California by J. H. Weinberger at the U.S. Horticultural Field Station, Fresno, California and in grower-cooperator trials in California. 'Springcrest's' outstanding performance in California was a major factor in its release.

'Springcrest' is less well adapted to the northern and northeastern U.S. because of its flower bud chill require-

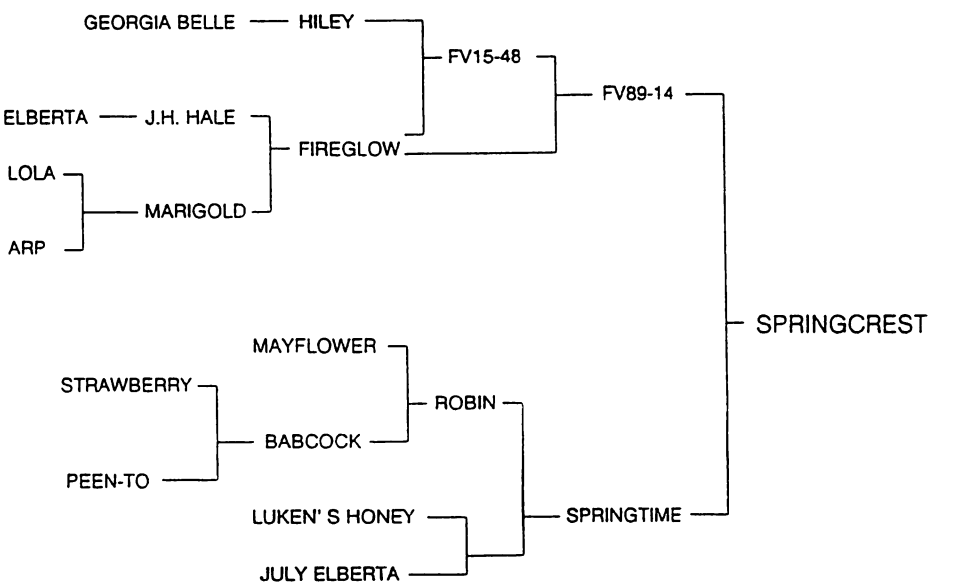

Figure 1. Pedigree of 'Springcrest' peach.

ment of 650 hours (below 7°C). Time of bloom is approximately 4 days before 'Elberta' at Byron with large petaled, showy, light-pink blossoms which are self-fertile. Leaf glands are globose and trees are moderately vigorous but susceptible to bacterial spot [*Xanthomonas campestris* pv *pruni* (Smith) Dye]. Fruit are small to medium in size, round with a slight tip and semi-freestone when fully ripe. Flesh color is medium yellow with no red flecking. Fruit are firm but melting, medium in texture and with a good subacid flavor. Fruit have a nonprominent suture and fine short pubescence. 'Springcrest' has exhibited fewer split pits than most other early cultivars but some may occur when crops are light. In California, exterior color is very attractive, having a bright red blush on 90 percent of the surface over a yellow ground color. In the Southeast, 'Springcrest' fruit tend to have excessively dark red color unless trees are growing vigorously (Savage and Prince, 1972).

Literature Cited

California Agricultural Statistics Service. 1988. California fruit and nut acreage 1988. Sacramento, CA.

California Tree Fruit Agreement. 1990. Annual report. Sacramento, CA 95865.

Iezzoni, A. F. 1987. The 'Redhaven' peach. Fruit Var. J. 41:50-52.

Myers, S. C., W. R. Okie and G. Lightner. 1989. The 'Elberta' peach. Fruit Var. J. 43:130-138.

Okie, W. R., D. W. Ramming and R. Scorza. 1985. Peach, nectarine and other stone fruit breeding by the UDSA in the last two decades. HortScience 20:633-641.

Savage, E. F. and V. E. Prince. 1972. Performance of peach cultivars in Georgia. University of Georgia Agric. Expt. Sta. Bull. 114.

Fruit Varieties Journal 45(4):192-199 1991

Performance of 'Starkspur Supreme Delicious' Apple on 9 Rootstocks Over 10 Years in the NC-140 Cooperative Planting

NC-140[1]

Abstract

In 1980-81, trees of 'Starkspur Supreme Delicious' on 9 rootstocks were planted at 27 sites in the United States and Canada according to guidelines established for cooperative testing by NC-140. The greatest tree losses occurred with the rootstocks O.3 (38.9%) followed M.27 EMLA (27.7%), MAC.24 (26.1%), M.9 EMLA (24.4%) and M.9 (20.0%), with M.7 EMLA (3.3%) and OAR.1 (6.1%) having minimal losses. MAC.24 produced the largest trees, followed by OAR.1 and M.7 EMLA, with M.27 EMLA producing the smallest trees. Trees on M.9 EMLA, M.9 and MAC.9 did not differ in tree size. Trees on MAC.24 produced excessive suckers and those on MAC.9 produced an adventitious swelling at and below the soil line. Trees on MAC.24, OAR.1 and M.7 EMLA produced much less fruit/unit trunk cross-sectional area than the smaller trees. Calculating production potential per hectare using actual 10-year-old size, trees on MAC.9 had the greatest potential, followed by M.26 EMLA, O.3, M.7 EMLA, and M.9 EMLA, while trees on OAR.1 had the lowest potential. Comparison over 5 years showed a tendency for fruit on trees of M.27 EMLA and OAR.1 to have smaller average fruit size.

The margin between the production costs and fruit value has been getting progressively smaller, and growers have had to increase orchard efficiency to stay competitive. The most widely

[1]Salaries and research support provided by State and Federal Funds appropriated to the Ohio Agricultural Research and Development Center, The Ohio State University. Journal Article No. 188-90.

Cooperators shown in Table 1. Appreciation is extended to Oregon Rootstock, Inc., Woodburn, OR 97071 for propagating and donating trees for the planting and to the International Dwarf Fruit Tree Association for shipping expenses. Special thanks are extended to to Bert Bishop, Ohio State University for performing the statistical analyses of the data.