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'Sunred' Nectarine

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'Sunred' nectarine is a product of the University of Florida's *Prunus* breeding program. A brief recounting of the early history of this program is provided. Professor Ralph Sharpe began breeding low-chill peaches at the University of Florida in 1952 after field tests in Florida revealed that none of the peach and nectarine cultivars available at the time were suitable for commercial production in Florida (11). Sharpe's primary goal was to develop early-season, low-chill peach cultivars with good commercial qualities that would ripen in central Florida during April and May (before California shipments began).

The first release came in 1961 when 'Flordawon' was named and suggested for trial in central Florida (5). Its main attributes were low chill requirement and early harvest date (late April or early May). It is well adapted to central Florida, but produces fruit that are too soft for commercial shipping and handling (7). Commercial plantings of 'Flordawon' never exceeded 25 acres. More suitable cultivars such as 'Early Amber' and 'Flordasun' peaches, and 'Sunred' nectarine, quickly became available in the mid-1960's and established themselves as the major cultivars for the central Florida industry. (1). 'Early Amber,' a patented cultivar, was developed by Peaches of Florida, Inc., using one of the University of Florida's breeding lines. 'Flordasun' and 'Sunred' were released by the University of Florida in 1964. Together, these three cultivars represented over 85% of the central Florida peach and nectarine acreage during the late 1960's and early 1970's (1, 2).

The nectarine character was first introduced into the breeding program in 1956 by growing an F2 population from the cross, 'Panamint' nectarine x ('Southland' x 'Hawaiian') F2 (5, 6). 'Sunred' nectarine was selected from this cross in 1961 and observed in Gainesville and Deland, Fla., before its release in 1964 (6). In central Florida, 'Sunred' trees reliably produce bright red, roundish, semi-free stone fruit with firm, yellow, flesh of excellent dessert quality. With over thirty years of experience with 'Sunred' in Florida, it has become our standard for 250 chill units and is used to rate other cultivars for chill requirement. 'Sunred' usually blooms about 1 Feb. in central Florida. The average first picking date for 'Sunred' in central Florida is 10 May, which was usually about 2 weeks before California began shipping nectarines during the late 1960's and early 1970's. Early harvest season compensated for the small fruit size of 'Sunred' which tended to be 1 3/4 to 2 inches in diameter.

'Sunred' quickly became established as the major commercial nectarine grown in central Florida and was one of the three (along with 'Flordasun' and 'Early Amber' peaches) most widely planted cultivars in Florida bgtween 1967 and 1969. By 1969, 'Sunred' occupied over 750 acres of the 2800-acre peach/nectarine industry in central Florida. The high grower interest in 'Sunred' was no doubt related to the excellent prices received for fresh nectarines during late April and early May. In 1970, Florida-grown nectarines returned profits of between 30 and 40 cents per pound after picking and packing (2). At peak production in 1970, there were 31 car lots of 'Sunred' fruit shipped out of Florida (8). During the same period that 'Sunred' became established as the standard for

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early-season nectarines in central Florida, it was also being evaluated for its commercial potential in other regions of the United States, Europe, Asia, and Central and South America (9).

Eventually, 'Sunred,' with its small fruit size, could not compete with the new, earlier-ripening, cultivars which were being planted in California during the early 1970's. By the late 1970's, commercial peach acreage (including 'Sunred') in central Florida had declined significantly because of these new cultivars from California.

'Sunred' represented a major advance in early-season, low-chill nectarine cultivar development. It demonstrated that commercial production of low-chill nectarines for the early season market was feasible in central Florida, and in certain other tropical and sub-tropical regions of the world. However, 'Sunred's greatest and longest lasting contribution to the low-chill stone fruit industries probably comes from its continued use in breeding and cultivar improvement. 'Sunred' has been used as a breeding line in Florida to develop numerous low-chill peach and nectarine cultivars which are currently grown in several counties. For example, 'Sundowner' nectarine (Fla. 6-3N) and 'Forestgold' peach (Fla. 7-11), both named and grown in Australia, had 'Sunred' in their lineage, as did 'Maravilha' (Fla. 13-72) peach which was named in Brazil and grown in Brazil and Australia. During the mid-1980's, 'Sunred' was still the most widely grown nectarine in the low-chill stone fruit producing areas of Australia (4). However by 1990, 'Sundowner' had replaced 'Sunred' as the major low-chill nectarine grown there (11).

Other low-chill cultivars from Florida which resulted from using 'Sunred' in breeding include 'Flordaprince,' 'Flordaglo,' 'TropicSnow,' and 'Sunhome.' 'Sunred' has been replaced in Florida by 'Sunraycer' which blooms and ripens with 'Sunred' but has larger fruit than 'Sunred.'

The legacy of 'Sunred' nectarine can be summarized as follows: 1) it was the first commercial nectarine cultivar to become established in low-chill production areas around the world; and 2) it was used as a parent in peach and nectarine breeding programs in Florida and California. 'Flordaprince,' a low-chill peach which is a descendent of 'Sunred' and which was recognized for its world-wide importance when it received the ASHS Fruit Breeders' Working Group Outstanding Cultivar Award, continues to be a major cultivar in many sub-tropical production areas of the world.

Literature Cited

1. Anonymous. 1969. 5,640 acres of commercial peaches in Florida. 1969 Peach Report. Florida Crop and Livestock Reporting Service, Orlando, FL.
2. Anonymous. 1972. Florida peach and nectarine trees total over 800,000. 1972 Peach Report. Florida Crop and Livestock Reporting Service, Orlando, FL.
3. Loebel, R. 1987. Low chill stone fruit industry around Australia. In I. Skinner (ed.). Proc. of the First National Low-chill Stonefruit Conference. pp. 39-54.
4. Malcolm, P. J. 1991. N.S.W. Stone, berry and miscellaneous temperate fruit statistics. Agnote ISSN 1034-6848, Division of Plant Industries, NSW Agriculture and Fisheries.
5. Sharpe, R. H. 1961. Developing new peach varieties for Florida. Proc. Fla. State Hort. Soc. 74:348-352.
6. Sharpe, R. H. 1964. Sunred. Cir. S-158. Agricultural Expt. Station, University of Florida, Gainesville.
7. Sharpe, R. H. 1969. Sub-tropical peaches and nectarines. Proc. Fla. State Hort. Soc. 82:302-308.
8. Sharpe, R. H. and J. B. Aitken. 1971. Progress of the nectarine. Proc. Fla. State Hort. Soc. 84:338-345.
9. Sharpe, R. H., T. E. Webb, and H. W. Lundy. 1954. Peach variety tests. Proc. Fla. State Hort. Soc. 67:245-246.
10. Sherman, W. B., J. Soule, and C. P. Andrews. 1977. Distribution of Florida peaches and nectarines in the tropics and subtropics. Fruit Var. J. 31:75-78.
11. Sweedman, R. 1992. The low-chill stonefruit industry in NSW and Australia. In J. M. Slack (ed.). Proc. of the Second National Low-chill Stonefruit Conf. pp. 5-16.