'Suncoast' Nectarine

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Additional index words. low chilling, fruit breeding, peach, *Prunus persica*

'Suncoast' nectarine [*Prunus persica* (L.) Batsch] trees produce large, attractive, yellow-fleshed fruit, and trees are well adapted to northern Florida. This cultivar is recommended for trial where 'Sundollar' and 'Sungem' nectarines have been grown successfully. All nectarine cultivars released by the Univ. of Florida Agricultural Expt. Station (FAES) begin with the prefix "Sun." 'Suncoast' is the largest and most attractive nectarine released from FAES to date.

Received for publication 18 July 1994. Accepted for publication 3 Nov. 1994. This is Florida Agricultural Expt. Station Journal Series no. R-03934. The cost of publishing this paper was defrayed in part by the payment of page charges. Under postal regulations, this paper therefore must be hereby marked *advertisement* solely to indicate this fact.

Origin

'Suncoast' nectarine originated from a 1983 cross between 9-12N x 7-3N (Fig. 1). The pedigree of 'Suncoast' includes 'Sungold', 'Armking', 'Sunred', 'Sunrich', 'Southland', 'Jewel', 'Panamint', and 'Hawaiian'. 'Suncoast' was selected in 1985 as a second-leaf seedling and was designated as Fla. 85-6N.

Description

Yearly variation in bloom, ripening dates, and other fruit characteristics of 'Suncoast' were significant in Gainesville and Monticello, Fla. (Table 1). 'Suncoast' trees begin to leaf and flower after accumulating ≈400 chilling units (cu), as defined in Richardson et al.

(1974). Budbreak typically occurs in mid- to late February, which is between 'Sundollar' (375 cu) and 'Sungem' (450 cu). Trees have fruited well where the coldest month averaged 13 to 15C and, in colder locations, in the absence of spring frosts.

'Suncoast' fruit have been observed in Gainesville and Monticello, Fla. Trees respond well to pruning and are easily trained to an open center. Flower bud set is high, and without adequate thinning by spring frosts, much fruit thinning is required.

Major advantages of 'Suncoast' are earliness, large size, firmness, and excellent "fire-red" skin pigmentation similar to that of 'Mayfire'. In northern Florida, fruit usually ripen during the first week in May and ≈1 week earlier in northern central Florida; therefore, the fruit development period is 75 to 80 days. The 'Suncoast' harvest period averages ≈7 days after that of 'Sundollar' and 3 to 4 days before 'Sungem', which it likely will replace. 'Suncoast' fruit are moderately large for the maturity season, averaging ≈6 cm in diameter and weighing slightly more than 100 g when firm ripe for commercial harvest (Table 1). Fruit are substantially larger than those of 'Sundollar' (Andersen et al., 1990) or 'Sungem' (Sherman et al., 1987). One fruit per 15 to 20 cm (6 to 8 inches) is required for proper fruit sizing. Yield in the absence of spring frost has been good.

'Suncoast' fruit are slightly oblong with no sharp tip or bulge. The calyx end of the fruit

Fig. 1. Lineage of 'Suncoast'; o.p. = open-pollinated.

Table 1. Characteristics of 'Suncoast' from 1989 to 1994 in Gainesville and Monticello, Fla.

Location	Year	Chill units ^a	Bloom		Harvest		Fruit development		Fruit size (g)	Fruit shape ^v
			Date (50% bloom)	Days before or after 'Sundollar' ^y	Date	Days before 'Sundollar' ^y	period (days)	Crop load ^s	Red overcolor ^w	
Gainesville	1988	400	3 Mar.	NA	21 May	NA	79	10	9	101
	1990	400	4 Feb.	NA	20 Apr.	NA	77	10	10	98
	1991	400	5 Mar.	NA	6 May	NA	63	10	9	125
	1992	375	23 Feb.	NA	8 May	NA	74	10	8	124
	1993 ^u	400	10 Feb.	NA	NA	NA	NA	NA	NA	NA
	1994	400	15 Feb.	NA	28 Apr.	NA	71	10	7	130
Monticello	1990	400	4 Feb.	+2	1 May	2	85	10	9	102
	1991	375	20 Feb.	-2	9 May	9	79	10	8	103
	1992	400	18 Feb.	+6	4 May	8	77	9	8	91
	1993 ^u	400	15 Feb.	+5	NA ^x	NA	NA	NA	NA	NA
	1994	400	22 Feb.	0	11 May	3	88	10	9	123

^aChill units are based on bloom and leafing times in relation to established key cultivars. Chill units defined in Richardson et al. (1974).

^yBloom and harvest dates in relation to 'Sundollar' are not given for Gainesville, Fla., because 'Sundollar' blooms erratically at this location.

^sCrop load rating: 10 = full crop; 0 = no crop.

^wRed overcolor: 10 = completely red; 0 = no red.

^vFruit shape: 10 = most desirable shape (perfectly round); 0 = least desirable shape.

^uNA = 1993 data not available due to a late freeze during mid-Mar. 1993.

does not soften prematurely. Color is excellent, with an 80% to 90% red blush over a yellow ground color. The skin is relatively free of speckles. Split pits and skin cracking seldom occurs. Flesh is melting in character and semi-cling; it clings slightly to the pit when soft ripe. Firmness retention after harvest has been rated excellent and higher than for 'Sundollar' and 'Sungem'. Flesh is relatively nonbrowning when cut or bruised (i.e., at least as good as 'Sundollar' or 'Sungem'). Pits are medium-small compared to 'Mayfire' and have little tendency to split.

'Suncoast' flowers are self-fertile, and trees are moderately vigorous and productive.

Leaves are the smallest of the low-chill nectarine cultivars grown commercially and have reniform petiolar glands. Flowers are nonshowy and are deep pink. Pollen is bright yellow and abundant. Leaves and fruit are as resistant to bacterial spot [*Xanthomonas campestris* pv. *pruni* (Smith) Dye] as those of 'Sundollar' or 'Sungem'.

Availability

Budwood has been released to commercial nurseries, and limited quantities of budwood may be obtained from the North Florida Research and Education Center—Monticello,

Route 4, Box 4092, Monticello, FL 32344 or the Horticultural Sciences Dept., 2133 Fifield Hall, Univ. of Florida, Gainesville, FL 32611. The virus status of budwood has not been assessed.

Literature Cited

- Andersen, P.C., W.B. Sherman, and R.H. Sharpe. 1990. 'Sundollar' nectarine. *HortScience* 25:486.
- Richardson, E.A., S.D. Seeley, and D.R. Walker. 1974. A model for estimating the completion of rest for 'Redhaven' and 'Elberta' peach trees. *HortScience* 9:331–332.
- Sherman, W.B., P.M. Lyrene, P.C. Andersen, T.E. Crocker, and R.H. Sharpe. 1987. 'Sungem' nectarine. *HortScience* 22:167–168.