Fla. 85-1 Peach

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Fla. 85-1 peach trees [*Prunus persica* (L.) Batsch] produce a medium-sized, attractive, yellow-fleshed fruit that is well adapted to northern Florida. Fla. 85-1 is recommended primarily for breeding purposes because of its attractiveness and short fruit-development period. Fla. 85-1 may be subject to trial where 'Flordaking' (Andrews et al., 1979) and 'Flordaglobe' (Andersen et al., 1990) have been grown successfully.

Origin

Fla. 85-1 originated from a 1983 cross of Fla. 5-15N x 'EarliGrande' (Fig. 1). It was designated Fla. 85-1 because it was the first peach selected in 1985. Fla. 85-1 has been evaluated on budded trees from 1988 to 1994 in Gainesville and Monticello, Fla.

Description

Fla. 85-1 leaf and flower budbreak occurs after accumulating ≈400 to 425 chilling units (cu), as defined in Richardson et al. (1974). Chilling requirements were determined from blooming and leafing dates in relation to standard cultivars. In northern Florida, Fla. 85-1 budbreak typically occurs in mid- to late February, usually 1 to 4 days after 'Flordaking'

(350 to 375 cu); although in 1994, Fla. 85-1 reached budbreak before 'Flordaking'. Trees fruited well when the coldest month averaged 13 to 15C and, in colder locations, in the absence of spring frosts.

Trees respond well to pruning and are easily trained to an open center. Flower bud set is typically high. Manual fruit thinning is required in the absence of natural thinning by spring frosts.

The major advantages of Fla. 85-1 fruit are earliness and attractiveness. In northern Florida, fruit usually ripen during the last week in April and ≈5 days earlier in northern central Florida. The fruit development period of Fla. 85-1 is ≈65 to 70 days, and harvest usually occurs during or slightly before that of 'Flordaking' (Table 1). Fla. 85-1 fruit are moderate in size for the maturity season, averaging 5 cm in diameter and weighing 80 g; fruit are considerably smaller than those of 'Flordaking' (7 cm; 100+ g) (Andrews et al., 1979). A spacing of 15 to 20 cm between fruit is required for proper fruit sizing.

A disadvantage of Fla. 85-1 is a high flower bud density that contributes to high thinning costs in the absence of natural thinning by spring frosts. In addition, the calyx end of the

fruit has a slight tendency to soften prematurely. Nevertheless, earliness and fruit attractiveness are characteristics that justify Fla. 85-1 as a germplasm release.

Fla. 85-1 fruit are round with no sharp tip or bulge; although in years of low cu accumulation, a slight tip has formed on fruit in Gainesville. Attractiveness is excellent (better than that of 'Flordaking') with an 80% red blush over a bright yellow ground color. Flesh is firm, melting in character, and relatively nonbrowning when cut or bruised; it is semicling when soft ripe. Firmness retention after harvest has been rated fair to good or slightly lower than that of 'Flordaking'. Pits are medium-small with little tendency to split compared to those of 'Flordaking'.

Fla. 85-1 flowers are self-fertile, and trees are productive and moderately vigorous. Leaves are medium in size with globose petiole glands. Flowers are pink and nonshowy, and pollen is bright yellow and abundant. Leaves and fruit are as resistant to bacterial spot [*Xanthomonas campestris* pv. *pruni* (Smith) Dye] as 'Flordaking'.

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. Virus status of Fla. 85-1 is unknown.

Literature Cited

- Andersen, P.C., W.B. Sherman, and R.H. Sharpe. 1990. 'Flordaglobe' peach. HortScience 25:811–812.
Andrews, C.P., W.B. Sherman, and P.M. Lyrene. 1979. 'Flordaking' peach. HortScience 14:81–82.
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.

Fig. 1. Lineage of Fla. 85-1.

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Table 1. Characteristics of Fla. 85-1 in Gainesville and Monticello, Fla.

		Bloom			Harvest		Fruit				
		Chill		Days before	First	Days	development		Red	Fruit	Fruit
Location	Year	units ^z	Date	or after	harvest	before	period	Crop	overcolor ^x	size	shape ^w
		(50% bloom)	‘Flordaking’		date	‘Flordaking’	(days)	load ^y		(g)	
Gainesville	1988	400	28 Feb.	NA ^v	30 Apr.	NA	62	10	9	72	9
	1990	NA	NA	NA	11 Apr.	NA	NA	2	8	92	7
	1992	425	24 Feb.	NA	21 Apr.	NA	57	10	8	81	6
	1993	450	NA	NA	NA	NA	NA	NA	NA	NA	NA
Monticello	1990	400	2 Feb.	+3	16 Apr.	0	73	10	8	86	8
	1991	375	20 Feb.	+2	30 Apr.	0	70	10	8	75	8
	1992	425	25 Feb.	+1	26 Apr.	1	61	10+	9	73	8
	1993	400	12 Feb.	+4	NA	NA	NA	NA	NA	NA	NA
	1994	400	16 Feb.	−6	25 Apr.	10	71	10+	9	80	8

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

^bCrop load rating: 10 = full crop; 0 = no crop; 10+ = crop not adequately thinned.

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

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

^vNA = information is not available.