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## **'UFSUN' PEACH RELEASED FOR SUBTROPICAL CENTRAL AND SOUTH FLORIDA**

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*Abstract.* 'UFSun' peach [*Prunus persica* (L.) Batsch] is released for grower trial by the Florida Agricultural Experiment Station. Trees produce attractive, sweet tasting, yellow and non-melting flesh, semi-clingstone fruit intended for fresh use. 'UFSun' is suggested for central and south Florida from Tampa to Orlando and south of Interstate 4. It may be used to replace 'UFGold' peach in south Florida because it sets fruit more reliably at Immokalee, especially under night temperatures near and above 56 °F during bloom to shuck split. Trees of 'UFSun' are estimated to require about 100 chill units. We expect 'UFSun' to be grown successfully where 'Flordaprince' and 'TropicBeauty' peaches have been grown. Fruit ripen in late April in Immokalee and in early May at Gainesville. Fruit set is good and with proper thinning (six to eight inches) attain 2 1/4 inch diameter. Fruit are 50 to 70% red over a bright yellow ground color. Eating quality is good, sweet and slightly acid with a pleasing aftertaste with no bitterness.

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The Low-Chill Stone Fruit Breeding Program in Gainesville, at the University of Florida, has developed peach varieties adapted to the subtropical climatic conditions of central

Table 1. Tree performance and fruit characteristics of 'UFSun' at Immokalee, FL (2002-2004).

Year	Tree				Fruit (1 = least to 10 = most desirable)				
	Bloom (50%)	Chill (est.)	First harvest	Wt. (g)	Red skin (%)	Shape	Attr.	Qual.	Pubescence
2002	4 Feb	125	28 Apr	105	70	8	9	8	9
2003	14 Feb	100	25 Apr	92	80	9	9	9	9

Wt. = Weight; Attr. = Attractiveness; Qual. = Quality.

and south Florida. Low-chill peaches have been evaluated at the UF/IFAS Southwest Florida Research and Education Center since 1996. The results have identified several varieties suitable for growing in central and south Florida (Rouse and Sherman, 1998). In July 2003, the newest selection was released and named 'UFSun.'

'UFSun' peach, [*Prunus persica* (L.) Batsch], was released for grower trial by the Florida Agricultural Experiment Station. Trees produce attractive, sweet tasting, yellow and non-melting flesh, semi-clingstone fruit intended for fresh use. 'UFSun' is suggested for central and south Florida from Tampa to Orlando and south of Interstate 4. It may be used to replace 'UFGold' (Sherman and Lyrene, 1997) peach in south Florida because it sets fruit more reliably at Immokalee, especially under night temperatures near and above 57 °F (14 °C) during bloom to shuck split (Rouse and Sherman, 2003). 'UFSun' originated from a 1995 cross of Fla. 90-50cn nectarine × 'UFGold' peach, was selected and propagated in 1997, and tested as Fla. 97-20c. Fla. 90-50cn originated as an F2 of Fla. 84-18c (Diamante op) × Fla. 9-20c [complex parentage in (Sherman and Lyrene, 1997)].

Standards and methods used in this program to evaluate genotypes have been described (Sherman et al., 1998). 'UFSun' fruit have been observed at Immokalee (Tables 1 and 2) and Gainesville (Tables 3 and 4) on trees budded onto 'Flordaguard' seedlings and the following description of fruit summarizes 2 and 4 years of observation on trees 4 and 6 years old, respectively at Immokalee and Gainesville. Trees of 'UFSun' are estimated to require about 100 chill units (cu) based on full bloom occurring three days before the standard (Sherman

and Lyrene, 1998) of 'Okinawa' (150 cu), that blooms in latter half of January at Immokalee and late January at Gainesville. 'UFSun' has fruited well where the coldest month averages 64 °F (18 °C) (Sharpe et al., 1990) and in colder locations in the absence of spring frost. Thus, we expect 'UFSun' to be grown successfully where 'Flordaprince' (Sherman et al., 1982) and 'TropicBeauty' (Rouse and Sherman, 1989) peaches have been grown. Fruit ripen in late April in Immokalee and in very early May at Gainesville, about 80 d from full bloom and about 5 to 7 d after 'Flordaprince' peach at Immokalee and three days before 'Flordaprince' at Gainesville.

Trees are spreading, vigorous, and require summer pruning when grown in a vase training system to permit light penetration for formation of strong fruiting wood in the lower half of the tree. Trees at Immokalee and Gainesville set a high number of flower buds, have few blind nodes (Richards et al., 1994), and exhibit little bud failure prior to bloom (Weinberger, 1967). Flower bud density is slightly less than for 'Flordaprince'. Fruit set is good and thinning at six to eight inches (15-20 cm) between fruit will be required in the absence of spring frost to attain an average of 2 1/4 inch (507 cm) diameter fruit. Fruit picked at the commercial harvest stage of maturity are 30 to 50% red at Gainesville and 70% red at Immokalee over a bright yellow ground color. Fruit shape is nearly round and slightly squat with no suture bulge and with a slight tip at the bottom of the suture in Immokalee and inverted tip at Gainesville. The yellow flesh may contain small red flecks, but has no red at the pit. Flesh is firm, with good sweetness, and does not brown readily on bruised or cut surfaces. Eating quality is good, sweet and slightly acid with a

Table 2. Tree performance and fruit characteristics of 'UFSun' compared to 'Flordaprince' and 'TropicBeauty' at Immokalee, FL (2002-2004). Tree data are averages of 2 years; whereas, fruit data are rounded to whole numbers for the cultivars based on 3 years data.

Cultivar	Tree				Fruit (1 = least to 10 = most desirable)				
	Bloom (50%)	Chill (est.)	First harvest	Wt. (g)	Red skin (%)	Shape	Attr.	Qual.	Pubescence
UFSun	7 Feb	100	28 Apr	100	70	9	9	9	9
TropicBeauty	9 Feb	150	30 Apr	110	80	10	8	8	9
Flordaprince	7 Feb	150	18 Apr	85	80	9	9	8	8

Wt. = Weight; Attr. = Attractiveness; Qual. = Quality.

Table 3. Tree performance and fruit characteristics of 'UFSun' at Gainesville, FL (2001-2004).

Year	Tree				Fruit (1 = least to 10 = most desirable)				
	Bloom (50%)	Chill (est.)	First harvest	Wt. (g)	Red skin (%)	Shape	Attr.	Qual.	Pubescence
2001	4 Feb	100	23 Apr	118	40	9	7	8	8
2002	1 Feb	150	23 Apr	115	50	10	8	8	8
2003	7 Feb	100	28 Apr	120	50	9	8	9	8

Wt. = Weight; Attr. = Attractiveness; Qual. = Quality.

Table 4. Tree performance and fruit characteristics of 'UFSun' compared to 'Flordaprince' and 'TropicBeauty' at Gainesville, FL (2001-2004). Tree data are averages of 2 years; whereas, fruit data are rounded to whole numbers for the cultivars based on 3 years data.

Cultivar	Tree			Wt. (g)	Red skin (%)	Fruit (1 = least to 10 = most desirable)			
	Bloom (50%)	Chill (est.)	First harvest			Shape	Attr.	Qual.	Pubescence
UFSun	4 Feb	100	28 Apr	118	70	9	8	9	8
TropicBeauty	10 Feb	150	10 May	110	80	9	8	8	9
Flordaprince	7 Feb	150	25 Apr	85	80	9	9	8	8

Wt. = Weight; Attr. = Attractiveness; Qual. = Quality.

pleasing aftertaste with no bitterness. Fruit averaged 11 °Brix based on an average from 10 representative fruit at first harvest, when taken on the fruit equator perpendicular to the suture. Titratable acidity was 0.60 as % malic acid and penetrometer firmness was three pounds (1.4 kg) as measured with a standard 0.315 inch (8 mm) tip at harvest. No over-ripe off-flavors were noted. Pits are small, similar to 'UFGold' and have little tendency to split.

Leaves have two to four reniform glands. Flowers are showy and pink. Anthers are orange to red with anthocyanin and pollen is bright yellow and abundant. Leaves and fruit have shown no bacterial spot [*Xanthomonas campestris* pv. *pruni* (Sm.) Dye] in test plantings where known susceptible genotypes show typical symptoms.

A plant patent has been received for 'UFSun' and a propagation agreement is available through Florida Foundation Seed Producers, Inc., P.O. Box 309, Greenwood, FL 32443. Bud wood is non-indexed, but peach genotypes originating at the University of Florida breeding program (Sherman et al., 1996) have been found virus free in countries that routinely quarantine and index.

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