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'Gulfcrest' Peach

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'Gulfcrest' peach is jointly released for grower trials by the Georgia Agricultural Experiment Station, the Florida Agricultural Experiment Station, and the U.S. Department of Agriculture - Agricultural Research Service. The 'Gulf' prefix indicates that this cultivar was developed for the lower coastal plain which is largely the Gulf of Mexico region, but also includes a small portion of the Atlantic Coast from North Carolina to Florida. Trees of 'Gulfcrest' produce an attractive, sweet-tasting, yellow and non-melting flesh fruit intended for the fresh fruit market. It is expected to produce fruit with tree-ripened aroma and taste while retaining firmness for longer shelf life than fruit from conventional melting-flesh, fresh market cultivars.

'Gulfcrest' originated in Gainesville, Fla., from a 1995 cross of FL92-8C x 'Springbaby' and was selected and propagated in 1998 and tested as AP98-10 at Attapulgus, Ga. FL92-8C originated from a cross of 'Aztecgold' and 'Oro A'.

Standards and methods used in this program to evaluate selections have been described (1, 2). Trees of 'Gulfcrest' are estimated to require 525 chill units (7). This is based on full bloom consistently occurring with 'Sunfre' nectarine at Attapulgus where full bloom occurs most seasons in early-March (Table 1). 'Gulfcrest' has fruited well where the coldest month averages 12 to 13°C (6) and in colder locations in the absence of spring frosts. Thus, we expect this new peach to be adapted in areas where 'Sunfre' has been grown successfully. Fruit ripen in mid-May at Attapulgus, about 62-75 days after full bloom (Table 1) usually a few days after 'Flordacrest' (Table 2). Trees are vigorous, productive and without alternate bearing. Trees set a high number of flower buds, have few blind nodes (4), and exhibit little bud failure (bud drop) prior to bloom (8). Fruit thinning is required in the absence of thinning by spring frost, in order to size fruit and prevent limb breakage.

Leaves have small globose glands. Flowers are non-showy and pink. Anthers are light yellow and pollen is bright yellow and abundant. Leaves have shown no bacterial spot [*Xanthomonas campestris* pv. *pruni* (Sm.) Dye] in test plantings where known susceptible genotypes such as 'Flordagold' show typical symptoms.

'Gulfcrest' fruit have been observed on the original seedling and budded trees since 1998. Fruit are medium size and attractive (Fig. 1), averaging about 105 grams (60 mm diameter) when thinned to about 15 cm apart (Table 1). Commercially ripe fruit exhibit 90-95 percent red (with moderately fine darker red stripes) over a deep yellow to orange ground color. Fruit shape is round and the flesh contains some red pigment flecks in the outer flesh on the sun-exposed side of the fruit. There is no red in the flesh at the pit. Flesh is clingy to the pit even when fully ripe. Flesh is firm with good sweetness and does not brown readily on bruised or cut surfaces. Pits are medium small and have little tendency to split even when crop loads are low.

'Gulfcrest' is comparable in size to 'Flordacrest' and offers some significant advantages including superior shape, red blush, attractiveness, eating quality and firmness (Table 2). A plant patent has been filed for 'Gulfcrest' and a propagation agreement is available through Florida Foundation Seed Producers, Inc., P. O. Box 309, Greenwood, FL 32443. Budwood is indexed free of Prunus Necrotic Ringspot Virus (PNRSV) and Prune Dwarf Virus (PDV).

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Table 1. Tree performance and fruit characteristics[z] of 'Gulfcrest' (Attapulgus, Ga., 2000-2002).

	Tree			Fruit							
Year	Bloom date (Julian day)	Crop load[y] (%)	Harvest date (Julian day)	Dia. (mm)	Wt. (gm)	Shape	Red (%)	Attr.	Qual.	Firm.	Splits (%)
2000	61	30	136	61	104	8	90	8	8	8	0
2001	52	100	127	59	110	8	95	8	8	9	0
2002	71	100	133	60	104	7	90	8	8	9	0

[z] Subjective Shape, Attractiveness (Attr.), Quality (Qual.) and Firmness (Firm.) ratings: 1 = least desirable, 7= commercially acceptable, 10 = most desirable

[y] Percent crop load (Crop) is judged as percent of a full crop, i.e. fruit evenly spaced 10-15 cm apart throughout canopy.

Table 2. Tree performance and fruit characteristics[z] of 'Flordaking', 'Gulfcrest' and 'June Gold' (Attapulgus, Ga., 2000-2002).

	Tree			Fruit							
Cultivar	Bloom date (Julian day)	Crop load[y] (%)	Harvest date (Julian day)	Dia. (mm)	Wt. (gm)	Shape	Red (%)	Attr.	Qual.	Firm.	Splits (%)
Flordaking	49 b	70	125 b	66.8 a	152 a	4.7 b	37 b	4.7 c	5.3 c	6.7b	49 a
Flordacrest	51 b	58	129 b	59.7 b	127 b	6.0 ab	53 b	6.7 b	6.3 b	6.7 b	0 b
Gulfcrest	61 a	77	132 b	60.0 ab	106 c	7.7 a	92 a	8.0 a	8.0 a	8.7 a	0 b
June Gold	64 a	73	142 a	62.7 ab	137 b	4.7 b	33 b	5.7 bc	6.0 bc	6.7 b	13 b
LSD[x] $_{0.05}$	10	67	7	7.0	14	1.7	7	1.3	0.9	1.3	20

[z] Subjective Shape, Attractiveness (Attr.), Quality (Qual.) and Firmness (Firm.) ratings: 1 = least desirable, 7= commercially acceptable, 10 = most desirable.

[y] Crops of 'Flordaking' and 'Flordacrest' were significantly reduced in 2002 by spring frost injury following full bloom. Crop of 'June Gold' was significantly reduced in 2000 and 2002 by inadequate winter chilling.

[x] Percent Crop load (Crop), Red skin color (Red) and Split pit (Splits) data were transformed as arcsine (square root) prior to analysis (3). Untransformed means presented. Data analyzed by General Linear Models (GLM) program of the Statistical Analysis System for personal computers (5).

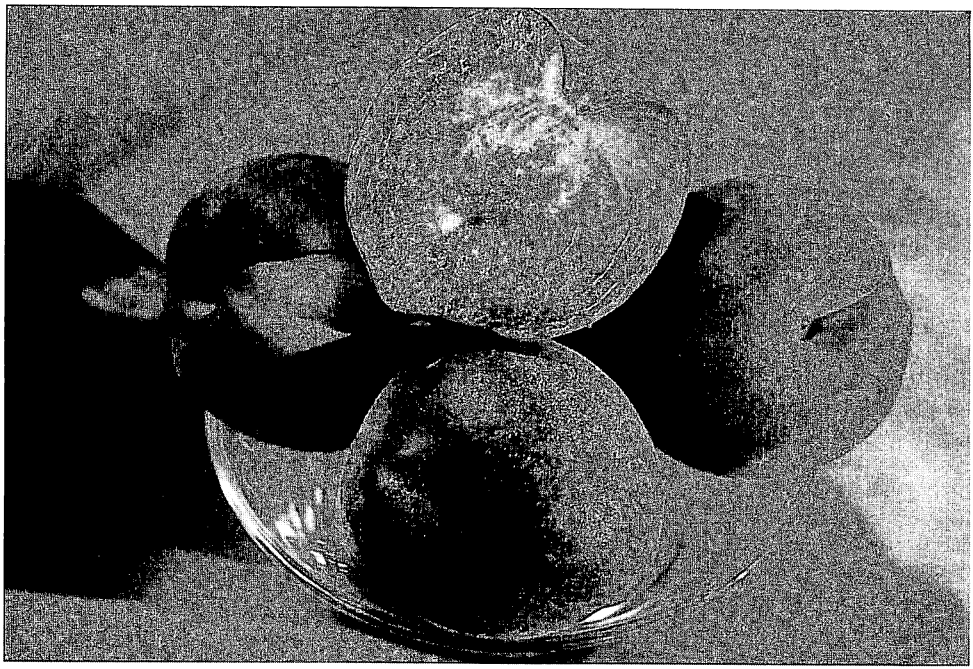

Figure 1. Typical fruit of 'Gulfcrest' peach.

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