

'White Robin' Peach

T.G. Beckman¹

U.S. Department of Agriculture, Agricultural Research Service, Southeastern Fruit and Tree Nut Laboratory, 21 Dunbar Road, Byron, GA 31008

G.W. Krewer²

Horticulture Department, University of Georgia, P.O. Box 1209, Tifton, GA 31793

W.B. Sherman²

Department of Horticultural Sciences, University of Florida, 1137 Fifield Hall, Gainesville, FL 32611

Additional index words. *Prunus persica*, moderate-chilling, fruit breeding

'White Robin' peach [*Prunus persica* (L.) Batsch] is jointly released by the U.S. Dept. of Agriculture, the Univ. of Georgia, and the Univ. of Florida to provide an early-ripening, moderate-chill, white-fleshed peach for trial by home gardeners, u-pick growers, local markets, and specialty market shippers in areas where 'Flordaking' and 'June Gold' are well adapted. This area is a belt running from southeastern South Carolina through southern Georgia and northern Florida to south central Texas.

Origin

'White Robin' originated in Gainesville, Fla., from a 1972 cross of FL21-74 x FL3-71 (Fig. 1); it was selected and propagated in 1975 and tested as FL5-16W. Budded trees have been tested in Georgia at the Univ. of Georgia research farm near Attapulgus, at the U.S. Dept. of Agriculture station in Byron, and at commercial farms near Tifton, Quitman, and Cairo. Budded trees have been tested in Florida at the Horticultural Sciences Dept. in Gainesville. It has also performed well in Spain and France.

Description

'White Robin' fruit have been observed on own-rooted and budded trees since 1975. Trees are vigorous, semi-spreading, and produce a moderate number of flower buds, similar to 'June Gold'. Under good conditions for fruit set, 'White Robin' requires a moderate amount of fruit thinning. Fruit are medium size for early-season fruit, averaging nearly 60 mm in diameter when thinned 15 to 20 cm apart (Table 1). Fruit ripen 87 to 90 d after full bloom ≈2 weeks after 'Starlite', the first white-fleshed peach cultivar to ripen in southern Georgia.

Received for publication 23 Feb. 1999. Accepted for publication 15 Dec. 1999. 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.

¹Research Horticulturist; e-mail: tbeckman@byronresearch.net

²Professor.

Fruit are round with a slightly ribbed cross section, bulging suture, and inverted tip most years (Fig. 2). They are semi-freestone when soft ripe. The flesh is resistant to browning, melting, white with a few streaks of red, firm, and of good to excellent quality, although less aromatic than traditional high-chilling white-fleshed varieties such as 'Belle of Georgia'. External fruit appearance is attractive, with 50% to 80% red blush over a pale yellow to white ground color. Pits have little tendency to split. Harvest period, which lasts ≈7 to 10 d,

begins in South Georgia in late May of most years, usually coinciding with the harvest of 'June Gold' peach. There are no other moderate-chill, commercial, white-fleshed peach cultivars available during this period.

Leaves are moderately large with reniform petiolar glands. Resistance to bacterial spot [*Xanthomonas campestris* pv. *pruni* (Sm.) Dye] is moderately high, equivalent to that of 'June Gold'. Flowers are large, showy, and pink. Pollen is yellow and abundant. Trees are self-fertile. The major advantages of 'White Robin' are its unique ripening period, combined with excellent firmness and good quality (Table 2). 'White Robin' is heterozygous for the nectarine trait.

Culture

Trees of 'White Robin' are estimated to require 500 chill units (cu). This is based on full bloom consistently occurring after 'Flordaking' (400 cu) and 1-2 d before 'Sunfre' nectarine (525 cu) at Attapulgus. 'White Robin' has fruited well where the coldest month (January) averages 12 to 14 °C. In most seasons, full bloom occurs from late February to early March (Table 1). Best adaptation would be in areas and on sites where both 'Flordaking' and 'June Gold' peach have proven reliable in production.

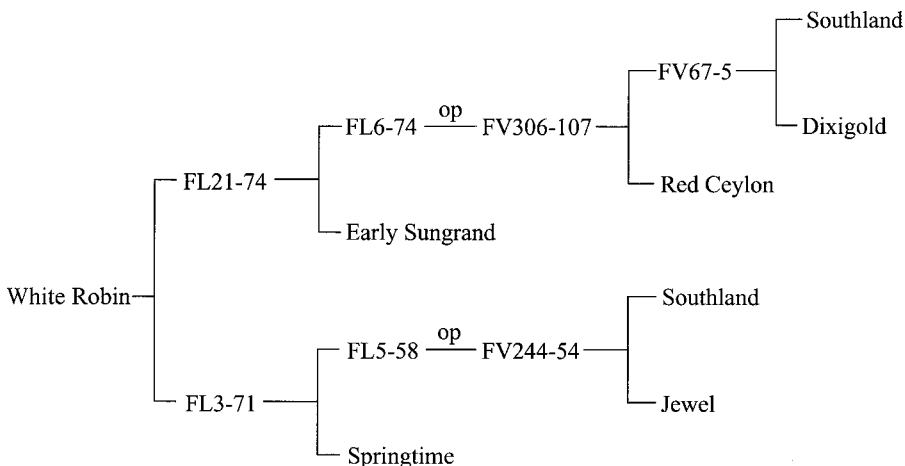


Fig. 1. Pedigree of 'White Robin' peach.

Table 1. Tree and fruit characteristics of 'White Robin' peach at Tifton and Attapulgus, Ga., 1988-94.

Year	Site ^z	Full bloom date	Harvest date (day of year)	Crop load ^y	Diam (mm)	Shape ^x	Red over-color (%)	Appearance ^x	Quality ^x	Firmness ^x
1988	T	NA ^w	148	6	56	7	70	7	7	7
1989	T	14 Feb.	135	2	67	7	70	7	NA	7
1990	T	NA	138	7	53	7	80	7	7	7
1991	T	NA	136	5	58	6	50	7	NA	8
1992	T	4 Mar.	153	8	54	6	70	8	8	8
1993	A	8 Mar.	154	1	65	7	60	7	7	7
1994	A	21 Feb.	139	6	62	5	60	6	6	8
SE	---	---	3.1	1.0	2.1	0.3	3.7	0.2	0.3	0.2

^zT = Tifton, Ga.; A = Attapulgus, Ga.

^y0 = no crop; 7 = full crop; 8 = slightly excessive crop. Severe late freeze reduced crop in 1989 and 1993.

^xShape, appearance, quality, and firmness ratings: 1 = least desirable; 7 = commercially acceptable; 10 = most desirable.

^wNA = Information not available.



Fig. 2. Typical fruit of 'White Robin' peach.

Table 2. Average performance of several white-fleshed peach cultivars at Tifton (1988, 1990) and Attapulgus (1994), Ga.

Cultivar	Estimated chilling requirement ^z	Harvest date (day of year)	Crop load ^y	Diam (mm)	Shape ^x	Red over-color (%)	Appearance ^x	Quality ^x	Firmness ^x
Starlite	650	128	6.3	53	5.7	73	7.0	6.7	6.0
White Robin	500	142	6.3	57	6.3	70	6.7	6.7	7.3
La White	650	174	5.7	64	7.0	77	6.3	6.5	5.5
SE ^w	---	7.8	1.3	3.7	0.8	5.5	0.6	0.5	0.5

^zHours at or below 7 °C.

^y0 = no crop; 7 = full crop.

^xShape, appearance, quality, and firmness ratings: 1 = least desirable; 7 = commercially acceptable; 10 = most desirable.

^wWeighted average SE.

Availability

Inquiries regarding availability of 'White Robin' trees may be directed to commercial peach and nectarine nurseries. Limited quantities of budwood, indexed free from *Prunus necrotic ringspot virus* (PNRSV) and *prune dwarf virus* (PDV), may be obtained from the NRSP5/IR-2 Collection, Washington State Univ., Irrigated Agriculture Research and Extension Center, Prosser, WA 99350. Genetic material of this release will also be deposited in the National Plant Germplasm System where it will be available for research purposes, including development and commercialization of new varieties.