

A New Late White-Fleshed Peach Cultivar, 'Soomee'

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During the last few years, total planted area of peach and nectarine trees in South Korea has increased considerably because of relatively high fruit prices in the domestic fresh market. Total cultivated area of the four major cultivars was 1451 ha (9.2% of total peach and nectarine cultivation area) for 'Yumyeong', 1056 ha (6.8%) for 'Kurakatawase', 663 ha (5.6%) for 'Okubo', and 1187 ha (7.6%) for 'Hakuto' in 2002 (5). However, fruit qualities of these cultivars do not meet consumer demand. 'Yumyeong' is too crisp and firm in fruit texture, 'Kurakatawase' and 'Okubo' are low in sugar content, and 'Hakuto' is too soft for picking, grading, and transportation. Much effort has been focused on solving these problems related to fruit quality in many peach breeding programs. Until now, only four peach and one nectarine cultivar have been released by the National Horticultural Research Institute (NHRI) at Suwon (1,2,3,4).

'Soomee' originated from a cross between 'Yumyeong' and 'Chiyomaru' made at NHRI, RDA Korea in 1995. It was selected in 2001, tested at seven sites from 2002-2004 as 'Wonkyo Da-22', and named in 2004. The name 'Soomee' translates as "very beautiful and delicious." Trees of 'Soomee' produce a late-maturing, large, high sugar content, white and melting flesh fruit for the fresh market (Figure 1).

Trees are of medium vigor, productive and without alternate bearing. Growing habit of the trees is semi-upright and main fruit production is on medium size branches. Trees set a large number of flower buds. Moderate flower bud thinning is needed to improve fruit size. Leaves have small reniform glands. Flowers are large,



Figure 1. Fruit of peach cultivar 'Soomee'.

showy and pink. Anthers are purplish red and pollen is bright yellow and abundant. The full bloom date is mid-April at Suwon, similar to that of 'Yumyeong'. Fruits ripen 138 days after full bloom, typically in very late August at Suwon, and 12 days after 'Yumyeong'. Fruit size is large, with an average fruit weight of 306 g, and shape is oblate (Table 1). Fruit skin is flushed with light red and flesh color is creamy white. Juice soluble solids content is higher than 'Yumyeong'. Titratable acidity is low, similar to 'Yumyeong'. Flesh is soft and melting with good quality. Red pigmentation is absent in the outer flesh but strongly expressed around the pit. Flesh clings to the pit even when fully ripe. Pits are medium size and have little tendency to split. Unlike 'Yumyeong', preharvest drop rarely occurs. Fruits set on long or overgrown branches are generally smaller in size. Therefore, setting on medium branches or spurs is desirable for increasing the fruit size. Removal of paper

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Table 1. Tree performance and fruit characteristics of peach cultivars 'Soomee' and 'Yumyeong' (Suwon, Korea, 2002-2004)

Cultivar	Bloom date	Harvest date	Fruit weight (g)	Soluble solids (°Brix)	Titratable acidity (%)	Preharvest drop	Quality ^z
	(Julian day)	(Julian day)					
Soomee	105	243	306	12.7	0.47	light	4.3
Yumyeong	106	232	243	10.7	0.43	heavy	3.7

^zSubjective quality rating: 1 = least desirable, 3 = commercially acceptable, 5 = most desirable

bags 3 to 4 days before harvest increases fruit coloring. Excess nitrogen fertilization must be avoided.

'Soomee' is not resistant to brown rot (*Monilinia fructicola* (Wint.) Honey) or bacterial leaf spot (*Xanthomonas campwstris* pv. *pruni* (Smith) Dye).

'Soomee' is superior in size, sweetness, attractiveness, and eating quality to 'Yumyeong'. A plant patent was filed for 'Soomee' nursery production.

Literature Cited

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Effects of Yeasts and Fungicides on Russet in Apple

The effect of inoculations with yeasts occurring on apple surfaces and fungicide treatments on the russetting of 'Elstar' apples was studied. Captan, dithianon and a water treatment were implemented to study the interaction between the fungicides, the inoculated yeast species and *Aureobasidium pullulans*, and the development of russet. All yeast inoculations aggravated russet, but *Rhodotorula glutinis*, *Sporidiobolus pararoseus* and *A. pullulans* did so to a greater extent than the other species. Both captan and dithianon significantly reduced russetting. Denaturing gradient gel electrophoresis analysis showed that inoculations with *R. glutinis* and *S. pararoseus* seemed to suppress other yeast species present on the apple surface. From: P. Gildemacher et al. 2006. FEMS Yeast Research 6(8):1149-1156.