

The influence of peach and nectarine cultivar on fruit colour, fruit quality and consumer acceptance

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Abstract

The influence of different types of peach and nectarine cultivar and the harvest date on fruit colour, fruit quality parameters, and consumer acceptance were assessed. The analyses were carried on cultivars with different fruit taste (sourness and sweetness) and shape (round and flat), from 5 year old trees. The six cultivars were grouped in three pairs in which each had a similar commercial harvest date; each pair comprised by a non-acid cultivar and an acid cultivar. The peaches and nectarines were harvested at 10 days interval on four harvest date, two of which were before the commercial harvest date, one at commercial harvest and the last one 10 days after commercial harvest.

In all the harvest dates, the non-acid cultivars 'Honey Royalecov' and 'Big Nectared®' presented a more intense red colour, greater percentage of colour covering fruit surface and lower hue values than the acid cultivars 'Venuscov' and 'Red Jim'. Also they developed red colouration earlier. For flat fruit cultivars 'Donutnicecov', a nectarine acid cultivar, provided greater and early colour than the reference peach cultivar 'Sweet Cap®'. The evolution of soluble solids content over the different harvest dates was similar for both groups of cultivars. Round fruit non-acid cultivars showed a lower decrease of fruit firmness than acid cultivars, but this was the opposite in the case of flat fruit cultivars. The sugar-to-acid ratio of the non-acid nectarines was 1 to 2 times higher than with the acid cultivars and increases more rapidly through the harvest dates compared to non acid cultivars. The consumer acceptance was always greater for non-acid than for acid cultivars, either on early or in advanced stages of fruit maturity.