

Title Time-resolved reflectance spectroscopy as a tool for selecting at-harvest 'Ambra' nectarines for aroma quality

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Citation ISHS Acta Horticulturae 796:231-235. 2008.

Keywords *Prunus persica* (L.) Batsch; fruit maturity; odour pattern; shelf-life

Abstract

'Ambra' nectarines were measured at harvest by Time-resolved Reflectance Spectroscopy (TRS) and divided into three maturity classes (less, medium and more mature). In less and more mature fruit total aroma was extracted by solvent after 20, 26, 45, 69, 93 and 117 hours at 20°C. Fruit with high μa_{670} (less mature) showed higher concentrations of 3-methylbutanal, hexanal, (E)-2-hexenal, (Z)-3-hexenol, benzaldehyde, limonene, γ -terpinene, linalool, terpinolene and α -terpineol and lower concentrations of γ -decalactone. The odour pattern changed with maturity class and with time at 20°C. The "green" note due to aldehydes was more present in less mature class, while the "fruity, sweet, peach-like" odour associated to lactones was pre-eminent in more mature class.