

**Title** Quantitative determination of flesh mealiness in peach [*Prunus persica* L. (Batch.)] through paper absorption of free juice

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#### **Abstract**

A simple and rapid method was developed for quantitative determination of juiciness in peach flesh based on the absorption of free juice with ordinary absorbent paper after a flesh sample is squeezed by two metallic rolling cylinders. Juiciness data were compared with trained panel determinations on three peach cultivars kept at 4 °C and 90% RH for 7, 14 and 21 d plus a ripening period at 20 °C and 65% RH until the flesh reached  $19.6 \pm 9.2$  N. There was a high correlation between panel judgment and paper absorption ( $r^2 = 0.75$  in 'Elegant Lady', 0.77 in 'O'Henry' and 0.93 in 'Ross'). A sub-sample of the juiciest and the mealiest fruit also were sorted after 14 and 21 d in cold storage. 'Ross', a non-melting peach cultivar, did not develop flesh mealiness during any evaluation period. During storage, there was a reduction in juiciness reaching 15% less after 21 d. Mealy fruit were exclusively observed with melting cultivars exposed to cold storage. The proposed method for determining juice content is easily executed and shows a high association with human perception of juiciness and mealiness in peach.