

Title Analytical and sensory evaluation of two strawberry cultivars to improve market acceptability
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Abstract

Two strawberry cultivars (*Fragaria x ananassa* Duch.), 'Miss' and selection '94.568.2' ('Queen Elisa'), grown in two areas of North Italy, were investigated in 2002 and 2003. Objective physicochemical qualities of fruit, their storability and their sensory qualities were used to demonstrate the differences between the two cultivars and to improve their market acceptability. Since previous sensory evaluation in strawberries has shown that consumer preference is influenced mainly by sensory attributes including aroma, a second aim of this investigation was to characterize the volatile composition of the fruits of these two cultivars using GC-MS, GC-FID and GC-olfactometry (GCO) techniques. Objective and sensory results showed that 'Queen Elisa' had better characteristics (sweetness, acidity and firmness). Total content of aroma compounds analysed by GC-FID was higher for 'Miss'. The GCO assays indicated that 'Queen Elisa' had a better odour profile than 'Miss'. The latter cultivar showed a high sensory perceptibility of methyl butanoate, and of a compound not identified, associated with unpleasant odours (seasoned cheese and sulphurated smell).