Title Sensory acceptance of CA-stored peach fruit. Relationship to instrumental quality parameters

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Abstract

Peach (*Prunus persica* L.) fruit ripen and deteriorate quickly at ambient temperature. This work was undertaken in order to assess whether controlled atmosphere (CA) may be useful to improve sensory acceptance of fruit after storage. 'Rich Lady' peach fruit were placed at 20°C after being stored at 2°C under either air or CA (3 kPa O₂: 10 kPa CO₂) for 3 or 15 days, and then at 7°C for 1 day. Sensory acceptance, standard quality and emission of aroma volatile compounds were assessed 3 days thereafter. Sensory acceptance of air-stored fruit was lower in samples stored for 15 days, but CA storage effectively increased acceptance scores of these fruit in comparison with storage in air. Higher acceptance scores were associated mainly to perception of juiciness and "peach" flavour by consumers. Perception of "peach" flavour was strongly related to higher emission of a few, particular volatiles and to greater content of soluble solids.