

Title Maintaining postharvest quality of fresh produce with volatile compounds
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Abstract

The postharvest quality of strawberry (*Fragaria ananassa* Duch.) and tomato (*Lycopersicon esculentum* L.) fruit was evaluated after treatment with eucalyptus (Ec: *Eucalyptus globulus* L.) and cinnamon (Cn: *Cinnamomum zeylanicum*, Blume) volatile oil compounds and storage at 13 °C during or following vapour exposure. Fruit decay decreased in fruit treated with oil vapours and transfer to 'ambient air' (AA). Cn-treated tomato maintained fruit firmness during exposure, but the effects were not persistent following storage to AA. However, no effects on fruit firmness were observed for Ec-treated tomato and strawberry-treated with Ec-and Cn-vapours. Oil vapours stimulated levels of total soluble solids during exposure but effects were persistent only for 'cherry' tomatoes following exposure. Fruit samples treated with oil vapours did not differ in percentage weight loss, organic acid content, sweetness and total phenolic content during or following vapour exposure compared with untreated fruit. The results suggest that essential oil vapour may improve fruit quality-related attributes on top of the well-documented antimicrobial protection during fresh produce storage and transit.