

Title Antioxidant capacity and aroma compounds of strawberry fruit are affected by storage temperature
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Abstract

Interest in the role of antioxidants in human health has promoted research in the field of horticulture and food science, to evaluate fruit and vegetable antioxidants and to determine how their content and activity can be maintained or even improved through crop breeding, cultural practices, and postharvest storage and processing. The antioxidant capacity (measured as oxygen radical absorbance capacity, ORAC), total anthocyanin, total phenolic, aroma compounds, and postharvest life of strawberry fruit (*Fragaria x ananassa* cv. Chandler) kept at 0, 5 and 10 °C were investigated. Strawberry fruit stored the highest antioxidant capacity, aroma compound, total phenolic, and anthocyanins, respectively. The postharvest life based on overall quality was 7, 9 and 13 d for fruit stored at 10, 5 and 0 °C, respectively. However, the level and proportion of flavor components (TSS, titratable acidity and aroma compounds), indicated that the flavor life was shorter than postharvest life based on overall quality. Strawberries stored at 0 °C retained an acceptable overall quality for longest duration, however, berries stored at 10 °C showed the highest aroma compounds and antioxidant capacity during postharvest period.