Title Effects of different storage techniques on the antioxidant capacity, total phenolics and flavonoids of 'Hayward' kiwifruit

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Abstract

Phenolic compounds are broadly distributed in the plant kingdom and are the most abundant secondary metabolites found in plants. These compounds have many favourable effects on human health such as the lowering of human low-density lipoprotein reduction of heart disease and cancer. In this study, the effects of controlled atmosphere storage (CA,2 kPa O_2/5 kPaCO_2), prestorage l-MCP treatment and ethylene control during storage on the antioxidant capacity, flavonoids and total phenolic compounds content of 'Hayward' kiwifruit were evaluated. 'Hayward' kiwifruits were stored at 0°C for 5 months. The total flavonoid content remained quite constant during storage in all treatments, while total phenolics was better preserved in CA stored kiwifruits. A decrease in the total antioxidant activity was observed during storage in all treatments. The results showed that there is a significant correlation with total phenolic compounds content and antiradical activity.