

Title Effect of storage on the contents of antioxidants; ellagic acid, ascorbic acid and anthocyanins in berries

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Citation Abstracts Book, 6th International Postharvest symposium, 8-12 April 2009, Antalya, Turkey. 256 pages.

Keyword Antioxidant; storage; berry

Abstract

Berries are a good source of antioxidants and therefore it is important to preserve these compounds during their shelf-life. Raspberries (*Rubus idaeus*, cv. Polka) and blackberries (*Rubus fruticosus*, cv. Loch Ness) were subjected to different storage periods (0-9 days) at 2°C. The antioxidants (ellagic acid, anthocyanins, ascorbic acid and total phenolics) were analyzed by high performance liquid chromatography with photodiode array detection. Ellagic acid was stable in both raspberries and blackberries (103.06 to 113.70 and 172.24 to 181.59 mg/100g f.w. respectively) during storage. Anthocyanins increased during storage (24.05 to 29.01 mg/100g f.w.) in raspberries but decreased in blackberries (67.70 to 57.04 mg/100g f.w.). Vitamin C in raspberries ranged from 21.94 to 27.96 mg/100g f.w. but was comparably low in blackberries (10.78 to 12.11 mg/100g f.w.). Significant changes in total phenolics and sugars during different storage periods (0-9 days) were found. Both total phenolics and sugars decreased and then increased with increasing storage time. The results suggest that storage caused no negative effects on the content of sugars and antioxidant.