Title Quality changes during ripening of plums (*Prunus domestica* L.)

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Citation Food Chemistry, Volume 111, Issue 4, 15 December 2008, Pages 830-836

Keywords Plum; Prunus domestica; Ripening; Sugars; Organic acids; Phenols; Anthocyanins; Fruit weight; Firmness; Soluble solids; CIRG

Abstract

Quality changes during fruit ripening after the appearance of fruit colour of four Prunus domestica L. plum cultivars, 'Jojo', 'Valor', 'Čačanska rodna' and 'Čačanska najbolja', were investigated during 25 or 33 day periods. Fruit samples were analyzed for fruit weight, firmness, soluble solids content, fruit colour, content of sugars (glucose, fructose, sorbitol and sucrose), organic acids (malic, fumaric and shikimic acids), phenolics (neochlorogenic acid, p-coumaroylquinic acid, chlorogenic acid and rutin) and anthocyanins (cyanidin-3-rutinoside and peonidin-3-rutinoside). Ripening resulted in statistically increased fruit weight and soluble solids, decreased fruit firmness, darker colour of fruits, increased concentration of total sugars, decreased concentration of total acids, and increased concentration of anthocyanins. There was no influence of ripening on the content of phenols. The results show significant influences of cultivar on fruit weight, soluble solids content, firmness, fruit colour, concentration of total acids, SUAC index, concentration of total phenols and anthocyanins in European plums.