

**Title** Influence of Fruit Ripening Stage and Harvest Period on the Antioxidant Content of Sweet Pepper Cultivars

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### **Abstract**

Pepper (*Capsicum annuum* L.) fruits are highly appreciated by producers and consumers for their economical and nutritional value. Four different cultivars of coloured peppers in immature and mature stages were harvested throughout the spring and examined for their content of phenolic compounds, ascorbic acid and total antioxidant capacity (TAA) as well as for lipid peroxidation and carbonyl proteins as index of oxidative stress. Ripening and harvest period influenced the antioxidants and the development of oxidative processes in the cultivars differently: lipid peroxidation increased in mature peppers except in one cultivar (Y1075), while no changes in protein oxidation or in TAA were produced, except in Y1075 in which both parameters increased. Each cultivar presented differences in antioxidant compounds depending on the harvest period, but we could recommend May as the optimal if all cultivars have to be harvested at the same time, when levels of ascorbate, phenols and TAA were not decreased, fresh weight and proteins were elevated, and levels of oxidation were not as high as in June (except for Y1075). A previous study of the response of each cultivar to different environmental conditions results essential to establish a good program of selection of cultivars with high quality and productivity.

<http://www.springerlink.com/content/k753548707uqx025/fulltext.pdf>