

Fruit Quality Performance of Organic Apricots at Harvest and after Storage from Different Environmental Conditions

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Abstract

The European and Mediterranean countries account for more than 75% of the world apricot production. This fruit species is characterized by a wide range of possible valorizations and by a particular adaptation to different environmental conditions due to a notable richness of local genotypes. Till now, few studies on nutraceutical properties such as antioxidant capacity and polyphenols determination of organic apricot fruit and their evolution after cold storage have been carried out. The nutraceutical characterization of the organic productions together with the safety guarantees associated with low-input agricultural systems could be considered as starting points in the enhancement and marketability of these products. With the aim to characterize the nutraceutical properties of organic apricot fruits during the storage, a study was carried out taking into account different pedoclimatic environments. Fruits were collected from five organic orchards located in the Emilia-Romagna and Tuscan areas. San Castrese, a reference cultivar for apricots, was chosen because of its well-known constant yield productivity in different environmental conditions and for its suitability as fresh and processed fruit. At harvest and after 7 and 14 days of cold storage (+4°C), pomological and chemical traits were determined. In particular, the total antioxidant capacity (TEAC method) and phenols content (Folin-Ciocalteu method) were analyzed. San Castrese was able to maintain good pomological and nutraceutical properties even after cold storage. Overall organic apricots were shown to have higher antioxidant capacity and phenol content when compared to those from a conventional system.

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