

Functional and conservation value of fruits - a lab approach

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Abstract

Fruits are a relevant source of phenols and ascorbate, biomolecules which scavenge reactive oxygen species. For this reason, they are considered as healthy for the human being. Fruits quality depends on their levels of antioxidants and enzyme activities that ensure their conservation. The aim of this work was to plan and execute a laboratory class of Enzymology, a discipline of Biochemistry degree of University of Évora, Portugal, for determining the functional and conservation value of three different fruits types, sold in the market of Évora, Portugal. The development of this activity allowed that students of a pilot class participate in a laboratory activity which intended to compare the content of phenols, ascorbate, and polyphenol oxidase enzyme activity present in apple, peach and blueberries pulp. At Lab activity, the students successfully determined markers of functional and conservation value of selected fruits. The skills acquired by the students, in terms of obtaining fruit pulp and their composition in antioxidants, stimulated their commitment degree on the application of biochemistry in the everyday, acquiring thereby significant learning, with a high degree of satisfaction.

Keywords: *Malus domestica*, *Prunus persica*, *Vaccinium myrtillus*, antioxidants, conservation, enzymology class.
