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Preliminary study of employ of an olive leaf extract on bakery products

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Olive leaves represent a quantitatively significant by-product of olive grove farming, around 10% of the total weight of olive arriving to the mill, they are considered as a cheap and natural source of bioactive compounds. The chemical composition of olive leaves varies according to many factors, the most important are olive cultivar, climatic conditions, stage of crop's cycle, agronomic practices and extraction procedures, that influences the different cultivars' total and specific phenols content as shown in the scientific literature. The olive leaves's secoiridois, flavonoids and phenolic compounds are beneficial for human health and in particular phenolic compounds such as oleuropein, verbascoside, rutin, tyrosol and hydroxytyrosol which biologic activity, including antioxidant, antimicrobial, and antiproliferative properties. Different studies show that many factors influence the olive leaf biocompound extraction efficiency, such as type and volume of solvent, temperature, pH and number of steps. An olive leaves aqueous extract from 'Biancolilla', a Sicilian cultivar rich in oleuropein, was employ for the production of bakery products. The enriched products maintain after a high cooking temperature, higher phenolic content and antioxidant activity, expressed as DPPH, than control. Furthermore, activity water (Aw) and textural properties at different time of storage were determined to evaluate the shelf-life of the product. Olive leaf extract represents a good candidate as functional ingredient for the enrichment of bakery products; it can be associated with improved prevention and control of metabolic diseases.

Biography

Rosa Palmeri has completed her PhD in "Food Science and Technology", at University of Catania. Actually, she is a temporary Researcher in the Food Science and Technology, at the Department of Agriculture Food and Environment at University of Catania. The scientific production is summarized in more than 40 publications, which concerns the development of economic methods of extraction and purification of glycosidases by related activities from vegetables and micro-organisms, in order to determine the best conditions for a possible use for the improvement of organoleptic and sensory characteristics of food; valorization of wastes from agro-food industries for application in nutraceutical food production.

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