

Improving sustainability in the table olive industry by transforming olive kernels into valuable food ingredients

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Abstract

This research project has been focused on improving the environmental performance of the table olive industry sector, by transforming the olive kernels into new forms of food ingredients with potential pharmacological and nutritional importance. Experimental results showed that the olive kernels can be suitably processed by mechanical removal of the kernel hull, separation and retrieval of the edible part of the kernel and freeze drying of the final product for removing the excess moisture content. The processed final product is characterized by pleasant organoleptic characteristics and a good shelf-life stability. Regarding the nutritional aspects of the processed by-product, experimental results showed significant values of multiple bioactive compounds, such as polyphenols (7670 tyrosol mg/kg), vitamin E (144 mg/kg), monosaturated fatty acids (41.41 g/100g), oleic acid (40.35 g/100 g), dietary fibre (16.4 g/100 g), plant proteins (15 g /100 g) and essential microelements (K, Ca, Mg, Zn). In conclusion, the results illustrate that the by-products of olive kernels should be reconsidered as a valuable food source with pharmacological, nutritional, environmental and financial importance.

Received: August 08, 2022; **Accepted:** August 17, 2022; **Published:** August 24, 2022

Biography

Dr. Agostina Galitsopoulou is a food scientist with a master's degree in food science and nutrition and a PhD in food chemistry. She is currently working as the Head of Research and Development department of the Company Eleones Halkidikis S.A. She is involved in the research area of by-product utilization for the production of

innovative, nutritional and healthful foods. Her research work has been awarded in the European Ecotrophelia platform for the promotion of eco-innovation in the food industry. Her current research activities involve the potential utilization of by-products from the table olive industry sector.