CARPATHIAN JOURNAL OF FOOD SCIENCE AND TECHNOLOGY

journal homepage: **http://chimie-biologie.ubm.ro/carpathian_journal/index.html**

Research Article

EVALUATION OF TOTAL POLYPHENOLS AND ANTIOXIDANT ACTIVITY OF FRUIT AND OLIVE OIL, THROUGH EXTRACTION WITH THE ULTRASOUND METHOD.

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https://doi.org/10.34302/crpjfst/2025.17.1.7

Article history:
Received:
April 24th, 2024
Accepted:
January 13th, 2025

Keywords:
Olive fruit;
Olive oil;
Polyphenols;
Antioxidant activity.

ABSTRACT

Virgin olive oil is derived from the olive fruit through physical or mechanical processes and its quality is closely associated with the fruit quality, harvesting methods, and extraction techniques. This study aimed to investigate the presence of polyphenols and bioactive compounds in olive fruits and compare them with the olive oil obtained from the same cultivars extracted by the ultrasound method. Multiple samples of different cultivars, namely Kalinjot, Korroneik, Unripe Korroneik, Nisjot, and Frantoio, were utilized for this study. Each cultivar underwent analysis of physicochemical parameters and bioactive components in both the fruit and oil, and the results were statistically analyzed using Statistix 9 software. The findings of this study revealed that the total polyphenol content in the olive fruit was higher than that in the oil obtained through the ultrasound extraction method. This observation highlights the influence of the extraction technique on the polyphenol and bioactive compound content in the resulting oil