

## Olive Oils from Algeria: Phenolic Compounds Composition and Antibacterial Activity

**Authors :** Firdaousse Lancer, Rahima Laribi, Abderazak Tamendjari, Rovellini Venturini

**Abstract :** Phenolic compounds present in olive oil have received much attention in recent years due to their beneficial functional and nutritional effects. Phenolic composition, antibacterial activity of phenolic extracts of olive oil varieties from Algeria were investigated. The analysis of polyphenols was performed by Folin-Ciocalteu and HPLC. As a result, many phenolic compounds were identified and quantified by using HPLC; derivatives of oleuropein and ligstroside, hydroxytyrosol, tyrosol, flavonoids, and lignans reporting unique and characteristic phenolic profile. These phenolic fractions also differentiate the total antibacterial activity. Among the bacteria tested, *S. aureus* and, to a lesser extent, *B. subtilis* showed the highest sensitivity; the MIC varied from 0.6 to 1.6 mg•mL<sup>-1</sup> and 1.2 to 1.8 mg•mL<sup>-1</sup>, respectively. The results obtained denote that Algerian olive oils may constitute a good source of healthy compounds, phenolics compounds, in the diet, suggesting that their consumption could be useful in the prevention of diseases.

**Keywords :** antibacterial activity, olive oil, phenols, HPLC

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