

Olive cake and leaf extracts as valuable sources of antioxidant and antimicrobial compounds: a comparative study

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Description

Purpose Aiming to exploit the remediation of olive cake and leaves, a comparative study between these extracts from the same trees has been carried out to explore them as a source of bioactive compounds with added value. **Methods** Olive cake (OCE) and leaf (OLE) methanolic extracts were chemically characterized by UPLC-QTOF-MS, and tested for their in vitro antimicrobial activity using a broth microdilution method. The antioxidant activity was evaluated using the DPPH scavenging, ferric reducing-antioxidant power and iron chelation assays. **Results** Our results demonstrated that Gram-positive bacteria were more sensitive to the extracts tested than Gram-negative bacteria, with the exception of *Yersinia enterocolitica* and *Campylobacter jejuni*. OLE have higher amounts of ash, carbohydrates, total phenolic content and flavonoids than OCE. UPLC-ESI-TOF-MS allowed the putative identification of 48 and 45 ...