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Characterization of olive tree extracts and study of their effects on the development of soft rot on potatoes

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Abstract

Antibacterial activity of acetic and methanolic extracts of *Olea europaea* L. products (leaves and olive cake) is tested against *Pectobacterium carotovorum* ssp. *carotovorum*, *in vitro* and on *Solanum tuberosum* L. tuber.

The obtained results from this investigation showed that extraction with aqueous acetone give a best yield of phenolic compounds than extraction with aqueous methanol. The result of antibacterial activity of extracts showed that all extracts have an antibacterial activity in a concentration of 200 mg/ml. The obtained results from the *in vivo* study reveal that all extracts show a decrease in soft rot development which is estimated as gramme of rotten tissue, with complete inhibition in presence of 819.2 mg/ml of acetic leaf extracts.

Keywords: Antibacterial activity, *P. carotovorum* ssp. *carotovorum*, Phenolic compounds, Plants extracts, Potatoes.