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**ROSMARINUS OFFICINALIS L. ESSENTIAL OIL AS GREEN PESTICIDE**

S. LAKEHAL <sup>(1)</sup>, C. CHAOUIA <sup>(1)</sup>, F.Z. BENREBIHA <sup>(1)</sup> et M. LAKEHAL <sup>(2)</sup>

<sup>(1)</sup> Laboratory of Plant Biotechnology Production, Department of Biotechnology, Blida1 university-Blida- Algeria.

<sup>(2)</sup> Department of Biology, Blida1 university-Blida- Algeria.  
E-mail : laksam@hotmail.fr

**ABSTRACT**

The environmental problems caused by overuse of pesticides have been the matter of concern for both scientists and public in recent years. The reasons for this are, the high toxicity and non biodegradable properties of pesticides and the residues in soil, water resources and crops that affect public health.

Natural products represent an excellent alternative to synthetic pesticides as a means to reduce negative impacts to human health and the environment. Pesticides based on plant essential oils or their constituents 'green pesticide' have demonstrated efficacy against some plant pathogenic fungi responsible for pre- and post-harvest diseases.

The present study describes *Rosmarinus officinalis* L. essential oil as green pesticide.

The essential oil of rosemary obtained by hydrodistillation (using Clevenger type apparatus) growing in Algeria (Djelfa city of south Algeria) was investigated by GC-MS. The essential oil yield of the study was 1.4 %. The major component were found to be camphor.

The essential oil has been tested against two fungi (*Aspergillus niger* and *Fusarium oxysporum*). Inhibition of growth was tested by the agar diffusion method Based on the determination of the diameter of inhibition. The oil was found to have significant antifungal activity.

Keywords: Antimicrobial activity, *Rosmarinus officinalis*, Essential oil, GC/MS, Camphor.