

Biochemical study and biological activities of two medicinal plants of eastern Algeria *Olea europaea* L. *Thymus vulgaris* L

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In recent decades, the anti-aging and antioxidant properties of thyme and olive leaves have been highlighted by scientists. Among other things, they allow very natural treatment of diuretics, antidiabetic, antioxidant, vascular spasmolytic, hypoglycemic, antibacterial, respiratory pathologies. This study was carried out on two different plants: the olive tree (*Olea europaea* L.) varieties (Arabica, Sigouaz) and the wild thyme (*Thymus vulgaris* L.) mila region in order to quantify the secondary metabolites contained in the leaves of both plants and the evaluation of their antioxidant activities by methanolic extract. This extraction was made in lab 13 Faculty of Natural Sciences, while the phytochemical study was carried out at the Centre de Recherche Biotechnologique (CRBT). A series of biochemical activities have been carried out to detect and quantify many compounds such as: flavonoids; polyphenols ; biological activities: Abts, Dpph, Cupric, Amylase, and Phynontroline. Our results revealed a great difference between the two plants, thyme for its high antioxidant contents and olive leaves especially the varieties Sigouaz for the antidiabetic.

Key words: *Olea europaea* , *Thymus vulgaris* , phytochemical study, biological activities, anti oxidants.