

## The Insecticidal Activity of Three Essential Oils on the Chickpea Weevil *Callosobruchus Maculatus* F (Coleoptera; Curculionidae)

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**Abstract :** Essential oils are, by definition, secondary metabolites produced by plants as a means of defense against phytophagous pests. This work aims to study the insecticidal effect of the essential oil of three plants: Phoenician juniper *Juniperus phoenicea*; the Niaouli *Melaleuca quinquenervia* and the wild carrot *Daucus carota* L, on the chickpea weevil *Callosobruchus maculatus* F, which is known as a formidable pest of legumes. Essential oils are obtained by hydrodistillation. The study carried out in the laboratory concerning the insecticidal activity of these essential oils by contact and inhalation effect on *C.maculatus* gave important results, especially for the essential oil of *Juniperus phoenicea* for the contact test; and for the inhalation test, the essential oil of *Melaleuca quinquenervia* shows remarkable insecticidal activity compared to the other two oils. The results of these tests showed a very interesting action. The essential oils used very significantly describe the lifespan of adults.

**Keywords :** essential oils, *juniperus phoenicea*, *melaleuca quinquenervia*, *daucus carota*, *Callosobruchus maculatus*

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