

Insecticidal Effects of Asphodel (*Asphodelus microcarpus*) and Calycotome (*Calycotme spinosa*)

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Description

This study aims to propose alternative solutions to plant protection products based on biopesticides derived from vegetable extracts. The choice is based on two plants, roots and flowers of the asphodel (*Asphodelus microcarpus*) and roots and flowers of calycotome (*Calycotome spinosa*). The plants are harvested from different regions in Bouira. After drying, the plants are ground and then subjected to aqueous extraction. The insecticidal effect is evaluated against 3 species of insects (*Aphis fabae*, *Ephestia kuehniella* and *Tribolium castaneum*) at concentrations of 100% 50% 25% 12.50%. Treatment by contact with adults of these insects at different doses reveals the efficacy of these extracts. Indeed, after 72 hours of the treatment on insects, one obtains 100% mortality in *A. fabae* for the 4 extracts and with the 4 doses. In the case of *E. kuehniella* treatments, we have obtained mortalities that vary from one extract to another, between 30% and 100% for high doses, and 13% to 92% for low doses. Adults of *T. castaneum*, treatments show mortalities ranging from 34% to 100% depending on dosages and extracts. The results show that mortality reported using the extract of *A. microcarpus*.