Effect of some plant extracts on some aphids

Abstract

The insecticidal activity of Ethanolic and Acetonic extracts of Lupine seeds (*Lupinus termis* Forssk), Fenugreek seeds (*Trigonella foenum- graecum* L), Black pepper fruits (*Piper nigrum* L.), Ginger rhizomes,(*Zingeber officinale* Roscoe) and whole plant of Demsesa (*Ambrosia maritina*L.) were tested against five Aphid species namely; *Aphis craccivora* (Koch) *Aphis gossypii* (Glover), *Myzus persicae* (Sulz.), *Pentalonia nigronervosa* (Coquerel), *Rhopalosiphum padi* (Linnaeus) (Homoptera : Aphididae) and eleven-spotted ladybird (*Coccinella undecimpunctata* L.) (Coleoptera : Coccinellidae) in the laboratory. It was found that all extracts of these plants have insecticidal effect against all species of Aphids according to the concentration as well as solvent used. Results indicated that the Acetonic extract of Lupine was the most potent against all species of Aphids, flowed by Fenugreek seeds, Black pepper, Ginger Rhizomes, then Demsesa. Whereas the eleven-spotted ladybird showed less effectiveness by these extracts. On the other hand, under the field conditions, the reduction effect of *L.termis* and *T. foenum-graecum* extracted by Acetone and Ethanol were evaluated, against three Aphid species; *Aphis craccivora* (Koch) *Aphis gossypii* (Glover) *Rhopalosiphum padi* (Linnaeus), it was found that all extracts caused reduction effect in these pests infestation compared with control. It could be mentioned that the results were similar to that obtained in the laboratory, the reduction effect of Ethanol extracts of Lupine against *A. craccivora, A. gossypii, R. padi* (Linnaeus) exhibited 75.1±2.63%, 70.1±1.55%, and 70.0±0.70%; respectively after 11 days. On the other hand the reduction effect of Ethanolic extracts of *T. foenum-graecum* against *A. craccivora, A. gossypii R. padi* recorded 73.2±2.58%, 73.2±0.94% and 68.0±2.40%; respectively after 11 days. While the reduction effects of Acetonic extracts of *L. termis* and *T. foenum-graecum*

applied against *A. craccivora* were 66.0±0.46%, 70.4±2.33%, and for *A. gossypii* the reduction effect reached to 75.1±2.30, 80.1±0.80%, while for *R. padi* the reduction effect reached to 70.0±0.50, 64.1±2.40%; respectively compared with control. In compared with the recommended concentration of KZ oil, it was found that the plant extracts were the most effective one. It is interest to note that there were no phytotoxicity effects in the tested plants.

CONTENTS