



Side effects of two botanical insecticides on predation rate of *Eriopis connexa* adults (Coleoptera: Coccinellidae).

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Use of selective insecticides to natural enemies is an important component for the conservation biological control. Botanical insecticides are being considered as selective pesticides. *Eriopis connexa* Germar is a native predator from Neotropical Region and considered as potential biological control agent feeding on soft-bodies pest such as aphids, whiteflies and thrips, all of them considered as virus vectors. For that its conservation in the crops becomes relevant.

This work proposes a new approach within the side effects evaluation of insecticides, incorporating predation rate as endpoint. In this context, the objective of this work was to evaluate the side effects of two botanical compounds (azadirachtin and *Melia* extract) on consumption behavior pattern of *E. connexa* exposed to treated prey.

For bioassays, 15 days-old female adults were exposed to treated prey. Solutions were prepared using distilled water as solvent and 0.01% of Tween 80®. Full field recommended concentration was used for azadirachtin whereas *Melia* extract was prepared at 2%. The prey (*Rhopalosiphum padii* adults) was treated by dipping during 10 seconds and once dried were offered to adults. Different amount of prey was evaluated (5, 10, 20, 30, 40, 50, 60). After 24 h, the amount of aphids preyed in each experimental unit and for each rate was recorded. Besides, it was checked if predator just sucked or sucked and chewed the prey.

Both botanical compounds reduced the consumption of *E. connexa* from 20 aphids offered. *Melia* extract and azadirachtin reduced 41.5 % and 16 % prey consumption, respectively; where 35% and 16% of the prey consumed was just sucked by predator, respectively, showing a deterrent effect of both compounds even though it was stronger with *Melia* extract.

Reduction in the predation rate of *E. connexa* by these botanical compounds is a not desired effect and put in risk the role of this predator as biological control agent.

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