

## Effect of Botanical Insecticides on the Foraging and Feeding Behavior of the Coccinellid Predator *Cryptolaemus montrouzieri*

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To investigate the effect of botanicals on the foraging behavior of the mealybug predator *Cryptolaemus montrouzieri* Mulsant, predator larvae and adults were exposed to leaves and the mealybug *Planococcus citri* (Risso) treated with one of the following: a crude neem seed extract; a formulation of azadirachtin (Azatin EC<sup>®</sup>); a pyrethrum extract; and one of two naphthoquinones isolated from *Calceolaria andina* Benth. (BTG 504 and BTG 505). All the botanicals influenced the foraging behavior of *C. montrouzieri*, at one or more concentrations. Larval and adult foraging behavior was influenced most by BTG 504 and neem also affected larval behavior; the predators contacted fewer treated leaves and spent less time on treated than on untreated leaves. Larvae also consumed fewer mealybugs treated with BTG 504 and BTG 505 compared with untreated mealybugs.

**KEY WORDS:** *Cryptolaemus montrouzieri*; *Planococcus citri*; foraging; feeding; crude neem seed extract; azadirachtin; naphthoquinones; *Calceolaria*; pyrethrum.

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