

280 - Olfactory responses of predatory mites to *Aceria guerreronis* Keifer (Acari: Eriophyidae) infested coconut plant parts

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The coconut mite, *Aceria guerreronis*, is considered a major coconut pest in different parts of the world. It is widespread in most coconut growing regions of the Americas and Africa and has been established rapidly in some major producing countries in Asia. A promising control of this pest is the use of predatory mites. Among the predatory mites found in association with *A. guerreronis*, species of *Neoseiulus* (Phytoseiidae) and *Proctolaelaps* (Ascidae) seem to be the most effective natural enemies. In this study, we evaluate olfactory responses of the predators *Neoseiulus baraki* and *Proctolaelaps bickleyi* from plant parts infested by *A. guerreronis*. More specifically, we assessed the ability of the predators to identify and differentiate odors from parts of coconut plants infested or not by the eriophyid. The olfactory responses of both predators were investigated using an Y-tube olfactometer. The following tests were carried out offering to predators the choice of: (i) isolated parts (leaf, inflorescence or fruit) of infested coconut plant or air stream; (ii) isolated parts of non-infested or infested coconut plant; (iii) different parts earlier detected as more attractive. Further comparison was carried out for *P. bickleyi* using aborted and non aborted fruits infested by *A. guerreronis*. Both predators were able to distinguish between the infested plant parts (leaf, inflorescence and fruit) and the air stream. The predators preferred infested over non-infested plant parts. Among the parts of infested plants, the inflorescences provided the greatest attraction to the predators. However, *N. baraki* did not show preference between infested and non-infested inflorescences. *P. bickleyi* preferred aborted infested fruits over no aborted ones. The results suggest that *N. baraki* and *P. bickleyi* are able to locate and search for plants infested by *A. guerreronis*.