

**EFFECTS OF LABORATORY REARING CONDITIONS ON THE PREDATORY MITE
NEOSEIULUS WOMERSLEYI (SCHICHA) (ACARI: PHYTOSEIIDAE):
II. OLFACTORY RESPONSE**

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ABSTRACT - The olfactory response of *Neoseiulus womersleyi* (Schicha) (Acari: Phytoseiidae) to prey-infested plant volatiles is known to exhibit plasticity according to the rearing conditions. We investigated whether genetic changes in the olfactory response of *N. womersleyi* could be caused by laboratory rearing. We reared five geographical populations of *N. womersleyi* under two conditions for 12 months: an artificial arena in which *N. womersleyi* significantly preferred prey-infested plant volatiles, and a detached-leaf culture in which *N. womersleyi* showed an equal response to the volatiles produced by prey-infested and intact plants. By offering the populations reared in the two conditions a choice between the volatiles of prey-infested and intact plants, we demonstrated that the olfactory response did not change as a function of the laboratory rearing method. These results suggested that the magnitude of the selection pressure under the two rearing conditions was too small to cause a detectable change in olfactory response within 12 months.

Key words - Acari, Phytoseiidae, predatory mite, biological control, genetic variation, herbivore-induced plant volatiles, foraging behavior.

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