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ÁCARO PREDADOR É AFETADO NEGATIVAMENTE PELA DEFESA DA PLANTA CONTRA HERBÍVOROS
PREDATORY MITE IS NEGATIVELY AFFECTED BY PLANT DEFENCES AGAINST HERBIVORES

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Plants have defense systems to protect themselves against herbivore attacks. Tomato plants may increase the production of defense compounds upon being damaged by herbivores, which reduces herbivore performance. Here, we investigate whether these induced direct defenses may also affect the natural enemies of the herbivores, for example because herbivores that fed on well-defended plants contain some of these defense compounds. To this end, we used the special characteristics of an herbivorous spider mite, *Tetranychus evansi*, which does not cause increases in plant defenses but decrease them, making these plants more nutritional for herbivores. A closely related spider mite, *Tetranychus urticae*, induces plant defenses, similarly to other herbivores. Hence, we could manipulate plant defenses by infesting plants with either of the two herbivores species, and using clean plants as a control. Subsequently, we used these plants as food for *T. urticae* and fed the eggs of this species to the predatory mite. We found that the predation and oviposition rate was lower when *P. macropilis* fed on eggs from females from plants previously infested by *T. urticae* (hence, plants with increased defense) than by *T. evansi* (reduced plant defense) or from clean plants (intermediate plant defense). This shows that even intermediate levels of plant defenses can negatively affect the third trophic level. Possibly, a small portion of defense compounds remains in the *T. urticae* eggs, reducing the predator performance.

Key-Word: *Phytoseiulus macropilis*, induced defense, suppressed defense.

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