

BIOLOGICAL CONTROL OF *Oligonychus punicae* Hirst (ACARI: TETRANYCHIDAE) IN MICHOACAN, MEXICO

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The present work is an experiment on biological control of avocado brown mite *Oligonychus punicae* Hirst that affects avocado *Persea americana* Mill in Michoacan, México. Two species of predators, *Phytoseiulus persimilis* and *Amblyseius californicus* (Acari:Phytoseiidae) were evaluated releasing them at four densities (50, 100, 150 and 200 mites) with ten replications by treatment, having a total of 80 experimental units. Each experimental unit consisted of a tree where the population density was sampled before and after application of the treatments. In non-treated control trees, no predator was released. To eliminate the effect of the initial density of the mite, an analysis of covariance and test to separate means were carried out (Tukey ≤ 0.05). Analyses of covariance showed a significant effect of the population initial density on the evaluated treatments (F=89.9, p=.0001). The same analysis shows a significant difference among treatments (F=9.33, p=.001). All treatments, except *Phytoseiulus persimilis* at level 100, controlled the avocado brown mite considerably better than that observed in the non-treated control. The maximum reduction of the avocado brown mite was obtained with densities 100, 150 and 200 of the predator *Amblyseius californicus*, but there was not statistical difference when compared with treatments of *Phytoseiulus persimilis* at levels 50, 100 and 200. The research shows that the utilization of either *Phytoseiulus persimilis* or *Amblyseius californicus* is a biological control alternative to the use of synthetic chemical acaricides.