

Assessment of feeding damage degrees caused by the scarlet mite, *Brevipalpus phoenicis* (Geijskes) (Tenuipalpidae), on guava fruits (*Psidium guajava* L.).

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Abstract

Three-scale classifications of the feeding damage inflicted by *Brevipalpus phoenicis* (Geijskes) were developed for the apical and basal tips of Guava fruit, *Psidium guajava*, and the scales were tested on harvested fruits. Ten plants from a 5 years-old orchard, located at Mara Co. of Zulia state, Venezuela, were randomly selected. One hundred fruits of 2 weeks-age and mite-infested were selected from the plants. Observations were practiced every 14 days during 4 months with a 10X field magnifier to assess the damage development into qualitative degrees. Changes in color and texture of the fruit rind were used to describe, schematize and categorize the damage into the following degrees: No damage (degree 0), slightly damaged (degree 1), moderately damaged (degree 2) and heavily damaged (degree 3). A non-parametric one way ANOVA procedure was applied to compare within and among the damage scales in the apical and basal fruit. The damage scale-classifications were tested on 417 harvested fruits and the results are given in percentages, being the number of fruits with apical damage significantly higher ($P>0.001$) than that of the basal damage. The intensity and damage development caused by *B. phoenicis* can be detected and measured by the changes in color and texture on the fruit rind tissues. The slightly damaged fruits were significantly ($P>0.001$) more frequent than the rest of the degrees for the apical end of the fruit. The application of these scales on harvest will help on making damage evaluation and to verify the incidence and importance of this mite on guava fruits, therefore helping on the decision making of this false spider mite problem.

Key words: Tetranychoida, Three-scale damage, Myrtaceae, guava, False spider mites, *Psidium guajava* L.

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