

## GLASSY WINGED SHARPSHOOTERS, *HOMALODISCA COAGULATA*, IN SOUTHERN CALIFORNIA AVOCADO ORCHARDS

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The presence of whitish exudates or sharpshooter excrement as a contaminant on the shoulders of avocado fruit from the feeding of *Homalodisca coagulata* (GWSS) on fruit pedicles has caused concern among California avocado growers and precipitated this study.

Populations of GWSS were studied in avocado orchards adjacent to orange groves from March 2002 to November 2002 at two locations (two orchard pairs) in San Diego. Beat sampling, visual examination and sticky cards were used to assess the numbers of GWSS adults, nymphs and egg masses and the occurrence of the parasitoids *Gonatocerus ashmeadi* and *G. morilli* in both pairs of orchard types. Sharpshooter excrement was assessed as percent fruit contaminated and as percent fruit surface area covered. Adult GWSS were present and feeding on the fruit pedicels in both avocado orchards studied. Both parasitoids were found in similar numbers within the avocado and orange study areas at both sites. The appearance of excrement-covered avocado fruit at both sites occurred in late summer. For both sites, a correlation was found between both the percent fruit with excrement and the percentage of fruit surface covered with exudate with distance from the adjacent orange grove in the September measurements. By October the percentage of fruit with excrement contamination and the percentage of exudate coverage on the fruit were no longer correlated with distance from the adjacent orange grove at either site. This indicated that GWSS had evenly dispersed within the avocado orchards after earlier migration from adjacent citrus groves. The impact of excrement on the marketability and quality of avocado fruit remains to be investigated, but since there was no correlation between fruit size and intensity of GWSS feeding as measured by percentage exudate coverage, no evidence was found that GWSS feeding on the pedicel affects fruit development. Considering the observations in this study, we think that GWSS is unlikely to achieve the pest status in avocado that it has in citrus. The occurrence of GWSS in avocado seems related to the presence of citrus in the vicinity. The exudate coverage of fruit may be problematic in areas with a citrus-avocado interface.