

E. Avocado:

Avocado Thrips: *Scirtothrips perseae*
Persea mite: *Oligonychus perseae*

JH Biotech, Inc. Plant Protection Department

Avocado thrips and Persea mite at high densities can cause partial or total defoliation of trees, resulting in sunburn to young fruit and exposed trunks and premature fruit drop. Avocado thrips feeding activity damages foliage on both upper and lower leaf surfaces. Adult and immature Avocado thrips feed on developing fruit by hiding under the calyx, causing the scarring that appears as "alligator skin" on mature fruit.

Control of Avocado thrips and Persea mite on avocados at Saticoy, California, 2000: The trial took place at Sharp ranch on six year old avocado trees. Twenty-one trees in one row were chosen and a pre-count for both Avocado thrips and Persea mite was done. This pre-count consisted of 10 new leaves from each tree for the Avocado thrips and 10 moderately aged to old leaves for Persea mite. The field had not been treated with any pesticide prior to the trial. Temperatures ranged from 40°F at night to 70°F during the day and no rain occurred during the trial.

A Completely Randomized Design was employed, using three treatments and seven replications. Treatments included a control with no treatment, Valero at 1% solution per 100 gallons of water, and GC-Mite at a 2% solution per 100 gallons of water with 5% Natural Wet added to insure better coverage. Applications were made with a motor powered backpack sprayer to the point of run-off (approximately 100 gallons per acre). Applications were applied in the morning once at the beginning of the trial and counts for both pests were taken four times.

Results: After four weeks, the GC-Mite treated trees showed a statistically higher level of control on both Avocado thrips and Persea mite populations than either the control or the Valero 1% solution. It was noticed that adequate coverage of the foliage and other infected tissues was essential for good control with GC-Mite. The GC-Mite treatment also appeared to reduce incidence of Persea mite webbing. The GC-Mite treated foliage showed no observable phytotoxicity. In the Valero trial phytotoxicity was observed.

GC MITE ON AVOCADO THRIPS AND PERSEA MITE

