

## **Avocado Thrips (*Scirtothrips perseae* Nakahara [Thysanoptera: Thripidae]) Biology and Management: Overview of Subprojects.**

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Since its discovery in July 1997 in Saticoy and Oxnard CA, the avocado thrips rapidly spread north and south of the initial discovery area and currently infests 80% of avocado production acreage in California. This insect is the worst pest the California avocado industry has had to face since the first avocado was planted in 1871 in Santa Barbara.

California Avocado Commission sponsored research on the biology and management of avocado thrips has been divided amongst four team members who are coordinating research efforts within each of three subprojects. Subproject research is being conducted in both San Diego and Ventura Counties. Hoddle is managing subproject 1; avocado thrips and Franklinothrips sp. Biology and phenology in San Diego County, foreign exploration, and biological control. Yee, Phillips and Faber are overseeing subproject 2; phenology of avocado thrips and natural enemies in Ventura County, and aerial spray trials. Morse is directing subproject 3; pesticide efficacy trials, resistance monitoring, and biological control.

Specifically, the three subprojects are simultaneously investigating:

1. The biology and phenology of avocado thrips and its natural enemies in the laboratory and field.
2. Conducting foreign exploration for avocado thrips and its natural enemies in Latin America.
3. Evaluating the efficacy of natural enemies (e.g., lacewings) for avocado thrips control in commercial orchards.
4. Evaluating the efficacy of both registered and unregistered pesticides (for possible Section 18 registration) applied on the ground and by air and at different rates and timings of application.
5. Determining base-line data for resistance development by avocado thrips to sabadilla and agrimek.

Summaries of completed research are presented in the subproject overviews which follow.

**Combined Subproject 1: Laboratory Studies on Biology, Field Phenology, and Foreign Exploration and Subproject 3: Pesticide Screening, Sabadilla Resistance, Goetheana and Lacewing Studies**

*Subproject Leaders: Mark S. Hoddle and Joseph G. Morse*

**Subproject 3: Agri-Mek and Success Evaluations and Phenology in the field**

*Subproject Leaders: Wee L. Yee, Phil A. Phillips, and Ben A Faber*