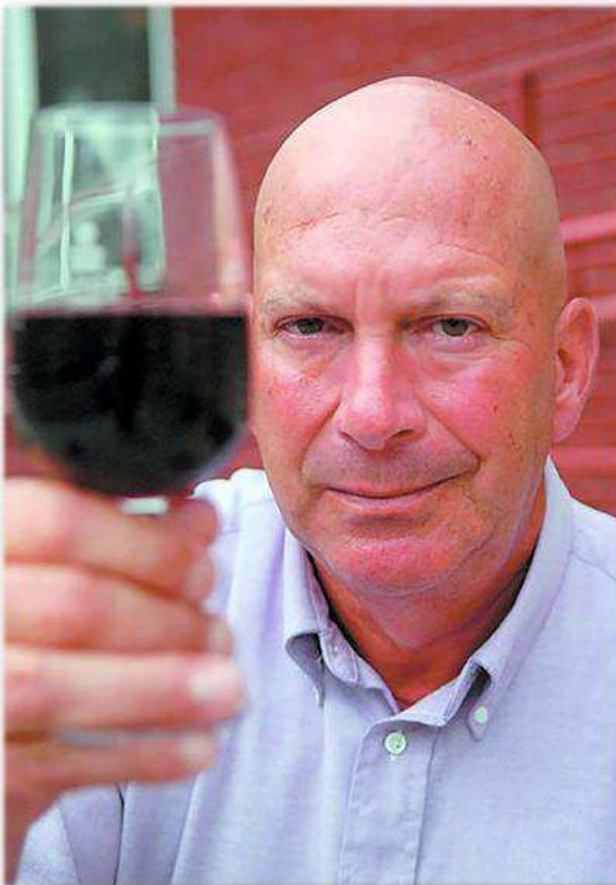


2018 Orchard Pest and Disease Management Conference

The 92nd Conference is pleased to announce
our keynote speaker:



Harvey Reissig

Professor Emeritus, Cornell University

Keynote Address:

**What I Learned About
Tree-fruit IPM Working 40
Years for Cornell, or:
Reflections from a retired
"Nozzlehead"**



Hilton Portland, Portland, Oregon
January 10-12

cherries) for pests (pear psylla *Cacopsylla pyricola*, and mites), parasitoids (*Trechnites insidiosus* and others), and predators (*Campylomma verbasci*, *Daereocoris brevis*, and other generalistic predators). Specifically, we assessed whether pear blocks adjacent to cherry blocks had higher or lower abundance of psylla, total pests, total beneficial arthropods, and pest: beneficial insect ratios, compared to isolated pear blocks. We found that pear blocks that were adjacent to cherry blocks received on average more conventional insecticide applications than isolated pear blocks. However, additional conventional insecticide applications in cherry-adjacent pear blocks did not reduce the total number of pests, psylla (eggs, nymphs and adults), or beneficial arthropods (predators plus parasitoids). We also found that pear blocks with more conventional insecticide applications (and next to cherry orchards) had a non-significant trend to have a higher pest: beneficial ratio, that is, a higher abundance of pests relative to beneficials. All these results raise the question: Are pear blocks next to cherries receiving unnecessary insecticide applications and pest pressure does not decline past a certain level, or are these additional sprays needed to maintain pest pressure at a level similar to isolated pear blocks? These questions will be addressed in future trials including more pear blocks.

POSTER

Biological Control

Early Releases of the Cosmopolitan Parasitoid *Trichopria drosophilae* to Control the Invasive *Drosophila suzukii*

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Keywords: spotted wing drosophila, *Drosophila suzukii*, parasitism, augmentation, field trials, biological control, Diapriidae

Abstract: Biological control remains unutilized as yet in the framework of spotted wing drosophila (SWD) management. Although several parasitoid species attack the pest under laboratory conditions, information is lacking on their host-finding and dispersal capabilities in natural environments. We tested the effect of repeated parasitoid releases on SWD populations in infested orchards and the effect of the *Augmentorium* technique for enhancing the parasitoid activity. The pupal parasitoid *Trichopria drosophilae* (Perkins) was released on different crops and in different environments throughout Italy. Collected data showed a significant reduction of *D. suzukii* emergence from ground-sampled fruit, and augmentation enhanced parasitism, increasing the numbers of parasitoids emerging from host pupae. Although further field studies are required, these results suggest that *T. drosophilae* may be considered a potential biocontrol agent for *D. suzukii*. Control strategies using this parasitoid should be aimed to low the SWD population at the very beginning of the season, thus regulating the pest population dynamic before the fruit ripening in the orchards and successively throughout the entire season.