



2014 Orchard Pest and Disease Management Conference



The 88th Conference is pleased to
announce our keynote speaker:

Stephen Welter
Vice President for Research and Dean
of Graduate Affairs,
San Diego State University

Keynote Address:

**A Tale of Two Systems:
Social and Technical Evolution
of Mating Disruption Systems
in the Western US and the
WODPM**



Hilton Portland, Portland, Oregon
January 8-10, 2014



Invasive Species

***Drosophila suzukii* and Wine Grapes: Host Suitability and Other Possible Impacts**

Claudio Ioriatti, Gianfranco Anfora, Alberto Grassi, Simone Maistri, Daniel Dalton,
Elizabeth Tomasino, and Vaughn Walton
Fondazione Edmund Mach, Trento, Italy

Keywords: *Drosophila suzukii*, spotted-wing drosophila, grape, susceptibility, surface penetration force, *Acetobacteria*, vector

Abstract: *Drosophila suzukii* is a global pest attacking various berry crops. *D. suzukii* lays eggs in damaged as well as in intact wine grape berries of the most soft-skinned varieties. Here we describe the relative host suitability of different wine grape cultivars (international and local), compared to other berry crops. Assessment has been performed both in the field and in the laboratory and results were correlated to the change in the surface penetration force and harvest time of the tested varieties. *D. suzukii* flies can be found feeding on damaged wine grapes during the harvest period, especially when the skins of berries are impacted by cracking, disease and bird damage. From the results of the present study, it is inconclusive that *D. suzukii* is a vector of *Acetobacteria* in wine grapes during the latter portion of the season. Further investigation of the interactions between *D. suzukii* and *Acetobacteria* would be necessary to determine whether increased levels of *Acetobacteria* due to *D. suzukii* activity levels will impact production cost and quality of high-value wines.

Spotted Wing Drosophila Report for 2013

Elizabeth H. Beers, Douglas B. Walsh and Timothy J. Smith
Washington State University, Tree Fruit Research and Extension Center, Wenatchee, WA

Keywords: *Drosophila suzukii*, trapping, chemical control, Warrior, lambda-cyhalothrin, Fyfanon, malathion, Sevin, carbaryl, Diazinon, Delegate, spinetoram, Entrust, spinosad

Abstract: The seasonal pattern of abundance of spotted wing drosophila SWD has remained fairly consistent over the 4 years of monitoring: low in winter, spring and summer, increasing in late August, and peaking in Sept-Nov (until subzero temperatures inhibit activity). For the first time in 2013, adults were captured in every month of the year due to the mild winter. Two new commercial lures from Trécé were tested for attraction to SWD. Overall, these lures tended to catch the most flies, and also caught flies 1-4 weeks earlier than apple cider vinegar (ACV). Using ACV may increase the capture of the Trécé lures. In general, trap capture increased with larger bait volumes. Fyfanon caused high levels of mortality through 4 DAT; Sevin and Diazinon through 10 DAT, and Entrust and Delegate through 14 DAT. Fruit protection dropped off much more quickly. Rimon+Warrior provided high levels of mortality through 21 DAT. Three application methods of Warrior (100 and 400 gpa airblast, and handgun) produced similar levels of residual control.