

Invasive Species

**An Update on the Monitoring and Management of Spotted Wing Drosophila, *Drosophila suzukii* (Diptera: Drosophilidae), in the Mid-Columbia Region of Oregon**

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**Abstract:** A variety of trapping and monitoring methods were used for spotted wing drosophila (SWD) in the Mid-Columbia region in 2011. A pre-bloom insecticide trial, soil emergence cages and soil and duff samples were used to determine where SWD overwinters. No SWD were collected from the soil emergence cages or duff samples and results from the insecticide trial were inconclusive at determining if SWD overwinter in local cherry orchards.

In 2011, the first SWD were captured in apple cider vinegar (ACV) baited traps on 4 May in Hood River County and on 21 July in Wasco County. First catches in traps were female SWD. The abundance of SWD collected from ACV traps increased throughout the year well into Nov.

One trapping study compared six different trap designs baited with ACV. Traps with wire-mesh lids captured more adult SWD than did other trap designs. We also demonstrated that a 10% solution of ACV and salt would allow for monitoring of SWD during the winter by preventing freezing of the bait.

Field-laboratory assays were performed to evaluate insecticide efficacy and confirmed that organophosphorus insecticides, pyrethroids and spinosad/spinetoram-based products were the most efficacious. Dimethoate provided the longest lasting systemic activity.