

Invasive Species

Management of Spotted Wing *Drosophila* in Oregon Cherries: Year 1 Post Invasion

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Abstract: The spotted wing drosophila, *Drosophila suzukii* (Matsumura) (Diptera: Drosophilidae) is an Asian species that was detected in California in late 2008 and in Oregon during 2009. In early 2010, representatives from the Oregon cherry industry met to develop a management strategy that included monitoring and pest management options. Trapping with apple cider vinegar baited-traps revealed low levels of *D. suzukii* in the mid-Columbia cherry district through the harvest period. Populations increased rapidly afterwards in terms of fly numbers captured in traps and larvae in un-harvested cherries. Field and laboratory studies demonstrated that organophosphorous insecticides, including malathion ULV, pyrethroids, spinosad and spinetoram, were effective insecticides for *D. suzukii*. Acetamiprid, cyazypyr and imidacloprid did not provide quick knockdown but appeared to reduce the number of offspring produced from infested fruit. There were no reports of *D. suzukii* infested cherries during harvest from commercial orchards in the mid-Columbia area of Oregon this past growing season.