

Invasive Species

**SWD and MRLs: Controlling One While Complying with the Other**

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*Abstract:* The recent introduction of spotted wing drosophila (SWD) into the major cherry-producing regions of the western US has elevated concerns regarding Maximum Residue Levels (MRLs) on exported sweet cherries. Pesticide labels granted by the US-EPA are designed to meet US tolerances, but each country has the ability to set its own tolerance for any given pesticide, some of which are considerably lower than that of the US. This has created a void in our knowledge of how to apply these materials so that they will produce fruit that meet export requirements. Residue degradation curves were developed for six of the most likely candidate pesticides to be used for SWD control. Of the six insecticides tested, three had a favorable profile for use on fruit destined for export, viz., spinosad, lambda-cyhalothrin, and malathion. With the exception of malathion on fruit destined for the EU, all could be used according to the US label with little projected concern about MRLs. Insecticides with similar tolerances between the US and other countries were more likely to be favorable; those with markedly dissimilar tolerances (e.g., 500- fold higher in the US) were deemed more likely lead to problems.