



Wisconsin Fruit News

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Spotted wing drosophila control during cherry harvest

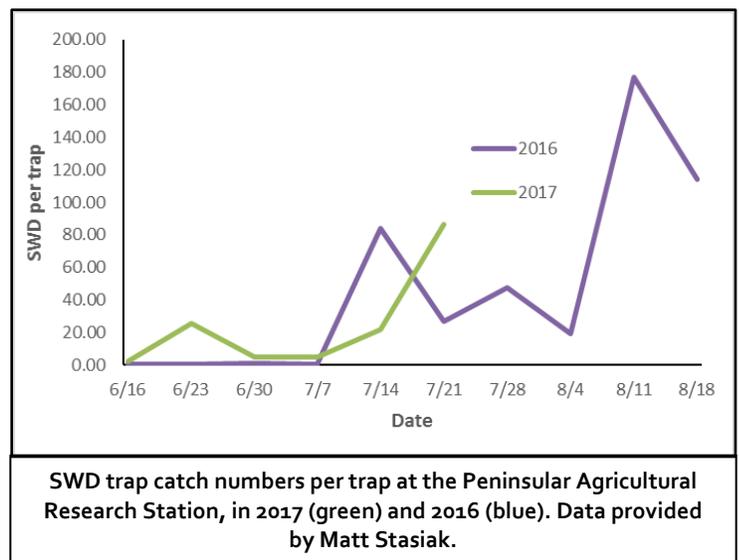
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Cherry harvest is beginning in Door County, and many of you are working hard to maintain control of spotted wing drosophila (SWD) during this critical time-period. In this supplemental issue of the newsletter, we will discuss SWD population growth, and then will summarize the current recommendations for cherry on how best to maintain thorough coverage and control of SWD up through the harvest season.

Populations are increasing quickly in 2017

Based on data collected at the Peninsular Agricultural Research Station in Door County, SWD populations have shown a sharp increase in the past week. They are not currently at higher levels than last year (see graph below). However, with cherry harvest a few weeks later than last summer, this season will have more overlap than usual between cherry harvest and SWD pressure.

SWD can best be kept in check before populations reach high densities in an orchard, and controlling early and often is critical to SWD management. Monitoring first appearance and population growth on your farm as well as immediate and thorough coverage with highly effective insecticides are key to keeping the populations under control in your orchard.



Effective insecticide options

Recent research and reviews done at Michigan State University (MSU) have focused on the most effective insecticides to control for SWD. The following table provides a summary of the insecticides they have rated as highly effective at this time. They are organized by pre-harvest interval (PHI), with the shortest PHI options at the top.

Class (IRAC code)	Tradename	Active ingredient	PHI* (days)	Maximum rate / season	Effectiveness
Diamide (28)	Exirel	Cyantraniliprole	3	61.7 oz / acre OR 3 applications	Excellent
Pyrethroid (3A)	Danitol	Fenpropathrin	3	42.7 oz / acre OR 2 applications	Excellent
Organophosphate (1B)	Imidan	Phosmet	7	7.5 lb / acre	Excellent
Spinosyn (5)	Entrust (OMRI**)	spinosad	7	9 oz / A	Excellent
Pyrethroid (3A)	Warrior II	Lambda-cyhalothrin	14	12.8 floz / acre	Excellent
Pyrethroid (3A)	Mustang Maxx	Zeta-cypermethrin	14	24 floz / acre	Excellent

*pre-harvest interval (PHI)

**Organic Materials Review Institute (OMRI) certified product

Cherries are susceptible to SWD as soon as they begin to color, so spray applications are recommended immediately once fruit begins to color and after the first SWD trap catch in your orchard or in your area. A more complete listing of insecticides available for use against SWD in cherries can be found in the [2017 Midwest Spray Guide](#). As always, be sure to read and follow the label.

Reapply often, cover thoroughly

Research at MSU has also shown that, especially at high SWD densities, alternate row sprays were no longer successful at controlling SWD. Additionally, we recommend you re-apply every seven days while cherries are susceptible (check labels for spray intervals of similar products). With the rainy summer we have had this year, you may want to consider re-applying more frequently when rain accumulation exceeds 0.5 inches in a day.

To determine when to begin management and to judge the effectiveness of your spray program, we recommend you monitor YOUR SWD population in YOUR orchard to be most accurate. It may be worthwhile to also perform salt-tests to see if larvae are in the fruit. Information about both adult and larval SWD monitoring can be found in the UW Extension publication "[Spotted Wing Drosophila: A detrimental invasive pest of soft skinned fruit](#)".



Thorough coverage is especially important, since SWD are good at hiding, and a few flies that escape your spray application can reproduce rapidly and quickly get out of control. Some ways to increase spray coverage include calibrating your sprayer and spraying only during calm weather.

SWD management in cherries is difficult, with many factors to consider, including rotating insecticide classes (to delay insecticide resistance), season-maximums for each insecticide, factors such as pre-harvest intervals and re-entry intervals, and achieving thorough coverage. We will continue to inform you as new research or control methods become available.

Post-harvest recommendations

Larval SWD develop rapidly, and the more quickly fruit can be harvested, refrigerated and/or processed, the less chance of detectable larvae in the fruit. Refrigeration will slow development of SWD, while freezing or processing cherries into juice halts development completely.

On a small scale

For small-scale growers and homeowners, if you do not wish to spray insecticides frequently throughout the season, the only way to harvest clean fruit is to bag all fruit on the tree, using a mesh small enough to keep SWD out (the ideal mesh size is 0.98 mm or less). Cherries are susceptible to SWD as soon as they begin to color, so the bag should be placed on the branches after pollination but before fruit begins to color. Note that fruit maturity may be delayed slightly by the bags, so you may harvest a few days later than otherwise.

Entrust and Grandevo are both Organic certified insecticides with some efficacy against SWD. Of these, Entrust has been found to provide better control. Entrust has a 7-day pre-harvest interval, while Grandevo has a 0-day pre-harvest interval.