

Subject: Massachusetts IPM Berry Blast – Spotted Wing Drosophila Alert

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Spotted Wing Drosophila Alert



Spotted Wing Drosophila (*Drosophila suzukii*), SWD, is a recently introduced new species of fruit fly in the United States. It was first found on the west coast in 2008, but has rapidly colonized many fruit producing regions of the country. Until now, we hadn't seen it in New England, but in the last few weeks it has been detected in Connecticut, Rhode Island, and we believe in Massachusetts (yet to be officially confirmed).

While fruit flies (or vinegar flies) are nothing new in the US, this species is different in its ability to infest healthy fruit. Other species typically infest over-ripe or damaged fruit. Females of this species have serrated ovipositors that can cut into healthy fruit to insert eggs. This can lead to problems with customers who find multitudes of larvae in otherwise sound-looking fruit after a couple of days.

Some other states have already had experience with this pest and have developed some good fact sheets and recommendations. Some of these are listed below:

See

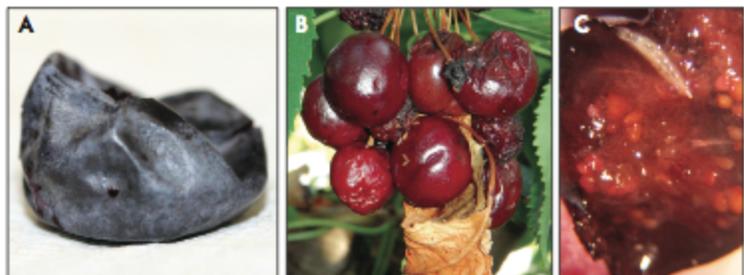
<http://www.ipm.msu.edu>

[/SWD/ManagementRecommendations-RaspberryBlackberryAug2011.pdf](http://www.ipm.msu.edu/SWD/ManagementRecommendations-RaspberryBlackberryAug2011.pdf)

<http://www.ipm.msu.edu/SWD/E-3140.pdf>

and

http://www.oregon.gov/ODA/PLANT/docs/pdf/ipm_d_suzukii_id_guide10.pdf?ga=t for more details.



Fruit infestation symptoms: A: Collapsed blueberry one week after infestation. B: Diseased cherry tissue associated with SWD infestation. C: SWD larvae are white and visible against the darker fruit. Photos by Vaughn Walton (A), Peter Shearer (B) and Tracy Hueppelshouser (C).



What to do:



Monitoring trap for SWD. A plastic container with holes, containing apple cider vinegar as a bait, and a sticky trap to catch flies. Photo: Rufus Isaacs.

The first step in dealing with this new pest is identification. Simple traps are used to capture fruit flies that can then be checked to determine if SWD are present. Trap designs are detailed in the fact sheets listed above but consist of plastic cups with holes punched in the sides, fill with a small amount of cider vinegar as a lure and with a sticky card hung from the cup lid to capture the flies that enter the trap. Sticky cards are available from several sources, such as Gemplers (<http://www.gemplers.com/product/RSTRIP/Olson-Yellow-Sticky-Traps-3x5-Pkg-of-25>).

Traps should be checked frequently and viewed with a magnifier to see details of the flies caught. If you're not sure if you have SWD, try to take a close up photo and send it to me and I will try to help with identification. Alternatively, you can place the sticky card into a ziplock bag and mail it to me (overnight is best), or your local Extension Fruit Specialist and we'll try to determine if there are SWD present on the cards.

As for recommendations, the first thing is to try to harvest frequently to avoid build-up of ripe or over-ripe fruit. Try to eliminate fruit on the ground as much as possible. Both of these measures are easier in small plantings, but are important to do if possible. Also, try to remove wild hosts for this pest such as wild blueberries, brambles, grapes, etc. Again, this will be easier for some than others but is recommended to the extent that it is possible. There are spray recommendations coming from states where this pest was established last year or earlier and can be found in some of the fact sheet links above. The summary of these recommendations is to a) use an effective material that has a short phi, b) use an effective material with at least some residual control (SWD can lay eggs one day after adult emergence!), and c) rotate resistance classes of materials so that effective materials remain effective. In reviewing recommended materials from Michigan, it looks like Malathion, Mustang Max and Delegate have the shortest phi and all have 5-7 day residual control. They are all in different resistance classes, too, so using them in a rotation would be good.

We will continue monitoring this situation but feel it is important to alert growers to the possibility that this pest may be present in their late season fruiting fields this year, and may then be present earlier in the season next year. Implementing a sound IPM approach of monitoring and executing good cultural and spray practices (including organic options) can keep this pest in check.

(photos: with thanks to Michigan State Univ.)

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