

Here is the newest issue of Massachusetts Berry Notes from the [UMass Extension Fruit Team](#).



Massachusetts IPM Berry Blast

August 28 2013

Spotted Wing Drosophila UPDATE

Spotted Wing Drosophila

Spotted Wing Drosophila numbers continue to increase. We are consistently catching them in all locations across the state where we have traps. Trap captures average over 100 each of males and females (up from approximately 70 males and 60 females per trap on average last week) with some locations with very low numbers and others with over 600 total SWD. This is consistent with reports from other states in the Northeast and upper Midwest.

Some conventional growers are reporting good success with a rotation of Delegate and Assail + sugar on a 7 day schedule. Some organic growers are reporting adequate control with a combination of mass trapping, alternating Entrust and Neem or Oxidate, and some exclusion netting for small scale production. Either approach must also incorporate frequent harvest, good canopy management (pruning for good air circulation), and prompt refrigeration of harvested fruit in order to be successful. Consumer education is also helpful especially in PYO settings where customers can help by removing overripe or damaged fruit from the field for a credit toward their purchase.



See <https://extension.umass.edu/fruitadvisor/spotted-wing-drosophila> for monitoring, identification and management information.

Growers should go to their state's SWD Information and Recommendation Web Page for specific information for their state. In Massachusetts see:

<https://extension.umass.edu/fruitadvisor/spotted-wing-drosophila>. In New Hampshire

see: <http://extension.unh.edu/New-and-Invasive-Pests/Spotted-Wing-Drosophila-SWD>.

(photo courtesy of Dr. Alan Eaton, UNH Extension)

See below for an excellent summary of current information about SWD from Michigan

The Third Growing Season Of Spotted Wing Drosophila Brings New Insights Into Its Management.

Posted on August 26, 2013 by Rufus Isaacs, Steve Van Timmeren and Keith Mason, Michigan State University Extension, Department of Entomology

[Spotted wing drosophila](#) (SWD) continues to be a significant pest in berry crops, and this season has again highlighted the need for growers to adopt intensive integrated pest management (IPM) programs to maintain fruit quality. While some producers have had challenges with this pest, most Michigan berry growers have been successful in controlling SWD. These experiences, coupled with our ongoing research, can help guide the improvement of management programs over time. This article provides an update from the experiences this summer to help inform growers to manage this pest during the rest of the 2013 season, and to help prepare for 2014.

There are some recurring themes in situations where SWD problems have developed.

Below, [Michigan State University Extension](#) addresses the situations that are associated with SWD problems including what we are learning this season about insecticide efficacy. Some comments are provided on how to rectify the situation in the short- and long-term. Some of these fixes are relatively simple, while others will take time and money to resolve.

Wooded borders

SWD inhabits the wooded habitats adjacent to crop fields, developing in wild berry-bearing plants that serve as alternate hosts to SWD. We are seeing higher pest pressure at these borders than at fields away from wooded edges, and on top of this these wooded edges can be harder to treat with aerial application. In response, growers are enhancing their SWD management program with border applications to ensure that field borders are well protected. A cannon-type sprayer can be used in this way to reduce immigration of flies into crop fields. Another approach to help reduce the risk of load rejection by processors is to pick separate loads for the parts of the field near the woods and away from woods. For machine harvesting, this only works well at fields with woods next to the long edge of the rows.

Pesticide coverage

Chemical controls can work only if they are applied in ways that protect all the berries from SWD. This requires excellent coverage of the crop, and there are multiple ways to achieve this. Growers are having success using sprayers operating from the ground and from the air, but both of these approaches have their drawbacks. Driving a sprayer through fields knocks off berries and reduces yield, so there is an understandable temptation to skip a larger number of rows. However, even tower sprayers that have nozzles to direct spray into adjacent rows may not be able to achieve high coverage if the tractor is skipping more than a few rows at a time. While this approach has worked in the past for blueberry

maggots and Japanese beetles that are active in the tops of bushes, SWD likes the shady parts of the canopy that are more challenging to penetrate with the sprayer.

Getting coverage with any sprayer design becomes more challenging as the canopy density increases, so effective control of SWD may require some changes to have well-pruned bushes, not skipping too many rows when spraying, and using higher water gallonage. Making adjustments to ensure excellent coverage may need to be part of planning ahead for 2014.

Using the most effective insecticides

From grower experiences this season and our recent research, we provide an updated list of highly effective insecticides for SWD control:

- Organophosphate Imidan
- Pyrethroids Mustang Max and Danitol
- Carbamate Lannate
- Spinosyn Delegate (or Entrust if growing organic berries)

Rotation among these insecticides is expected to provide the best opportunity for control of SWD while also minimizing the risk of resistance development. Reapplication is needed to keep high levels of crop protection, and a seven-day interval has been working well for many growers.

Malathion has worked well for some growers again this season, but if weather conditions become very hot, we caution growers against the use of this insecticide due to expected negative effect on its performance. This statement is based on the good control seen with Malathion 8F at the 2.5 pint per acre rate in our 2012 trials, compared with the much less effective performance we have seen in our 2013 trial. We suspect this difference is because of temperature, in that our 2012 trial was run when the daily maximum high temperatures were in the 70s and low 80s, whereas the 2013 trial was run when the temperatures were in the high 80s and low 90s, thereby reducing Malathion performance. Under these same hot conditions, Mustang and Danitol performed well out to seven days after treatment in our trial this year.

Reapplication after rain

If SWD have been detected and fruit are ripe or ripening, they will need to be protected from this pest. The duration of protection varies by insecticide, but it is highly sensitive to rainfall – most insecticides we have tested lose the ability to protect berries from SWD after rain. We therefore recommend reapplication after any significant rainfall, and failure to do this will leave fruit exposed to egg-laying by SWD.

This article shows that we are continuing to learn about SWD and how to combat it, but there is still more work to be done. This is an evolving area of pest management research and we welcome continued input from growers, processors and others on SWD management concerns.

For more on SWD management, check out the [MSU Spotted Wing Drosophila website](#).

Upcoming Meeting Announcement: *Visit On-Farm Research Trials to Learn Innovative Management Techniques for Spotted Wing Drosophila.*

Tuesday Sept. 10, 2013 - 2:00 - 5:30PM Eastern NY.

3:30 @ [Stonewall Hill Farm](#), Stephentown NY to see Fixed Sprayer System in a High Tunnel Raspberry Planting and

4:00 at [Hay Berry Farm](#) in Hoosick Falls NY to see Exclusion Netting and Mass Trapping to Control SWD in Organic Blueberries.

Meeting is free but registration is requested. Please call Marcie at 518-272-4210. These projects supported in part by NE-SARE .

Click [Here](#) for more info

Archived IPM Berry Blasts are available at the [UMass Extension Fruitadvisor](#) website.

We thank Nourse Farms for their underwriting of this newsletter which allows us to keep subscription rates low.

Our newsletter is presented in Adobe PDF format. To read the newsletter you'll need to download a free utility from Adobe called "Acrobat Reader"

It is available from www.adobe.com.

[follow on Twitter](#) | [friend on Facebook](#) | [forward to a friend](#)

Copyright © 2012 UMass Extension, All rights reserved.

Archives at:

<http://extension.umass.edu/fruitadvisor/publications/berry-notes>

Our mailing address is:

Mass Berry Notes, Bowditch Hall/UMass, Amherst, MA 01003

[unsubscribe from this list](#) | [update subscription preferences](#)