

Northern Michigan FruitNet 2013

Northwest Michigan Horticultural Research Center

Weekly Update

September 3, 2013

CALENDAR OF EVENTS

2013

- 9/5** **Senator Stabenow Roundtable on Proposed 2013 Farm**
Benzie Central Schools Auditorium

- 9/12** **Apple Field Sorting Machine Demo**
Sparta, MI

- 9/14** **Roadblocks to MAEAP Verification Workshop**
Putney Beef and Fruit

- 9/24** **Trevor Nichols Field Day**
Fennville, MI

2014

- 1/14-15** **NW Michigan Orchard & Vineyard Show**
Grand Traverse Resort

- 2/18-19** **IPM Academy**

GROWING DEGREE DAY ACCUMULATIONS AS OF September 2 AT THE NWMHRC

Year	2013	2012	2011	2010	2009	2008	23yr. Avg.
GDD42	3060	3679	3130	3553	2706	3021	3097.9
GDD50	2049	2504	2105	2387	1661	1981	2034.3

WHAT ARE WE LEARNING ABOUT SPOTTED WING DROSOPHILA MANAGEMENT IN BERRIES THIS SEASON?

The third growing season of spotted wing Drosophila brings new insights into its management.

Posted on **August 26, 2013**, **MSUE News**, 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](#).

This article was published by [Michigan State University Extension](http://www.msue.msu.edu). For more information, visit <http://www.msue.msu.edu>. To contact an expert in your area, visit <http://expert.msue.msu.edu>, or call 888-MSUE4MI (888-678-3464).

APPLE MATURITY TESTING AT THE NWMHRC

Again this year, the NWMHRC will be testing apples for maturity. Results will be sent via fax and email to past apple maturity list subscribers. The maturity newsletter will be updated weekly on Wednesdays. If you have not received this information in the past and wish to subscribe to the list, please contact the NWMHRC (946-1510 or nwmihort@msu.edu).

If you are interested in having your fruit tested, drop off a 10 – 12 fruit sample at the NWMHRC on Mondays, if possible. The fruit should be picked randomly from the outside portion of the trees and should be large in size and free of blemishes with the stem attached. Testing will begin **Tuesday, September 3rd**.

TREVOR NICHOLS RESEARCH CENTER FIELD DAY – September 24

MSU Extension will show the results of 2013 field research at the Trevor Nichols Research Center field day.

Posted on **August 27, 2013** by **John Wise**, Michigan State University Extension, Department of

[Michigan State University Extension](http://www.msue.msu.edu) will be having a research field day at the [Trevor Nichols Research Center](http://www.trevornicholsresearchcenter.com) on Tuesday, Sept. 24, 2013 from 1-4 p.m. The field day will focus on insect and disease research and efficacy trials that were carried out this season by MSU's [Larry Gut](http://www.larrygut.com), [Rufus Isaacs](http://www.annemiekchilder.com), [Annemiek Schilder](http://www.annemiekchilder.com), [George Sundin](http://www.georgesundin.com) and [John Wise](http://www.johnwise.com).

The [Trevor Nichols Research Center](http://www.trevornicholsresearchcenter.com) is located at [6237 124th Ave., Fennville, MI 49408](http://www.6237124thave.com).

Dr. Wise's work is funded in part by [MSU's AgBioResearch](http://www.msusagbio.com).

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Understanding the Food Safety Modernization Act
Luncheon
Friday, September 6, 2013
\$12.00 per person 12:30 p.m. – 2:00 p.m.
Kent/MSU Extension 775 Ball Ave NE Grand Rapids MI 49503

Instructors:

Phil Tocco, Food Safety Educator with Michigan State University Extension
Ben Werling, PhD, Vegetable Educator with Michigan State University Extension

Hosts:

Kendra Wills and Garrett Ziegler, Community Food Systems Educators with Michigan State University Extension

The U.S. Food and Drug Administration (FDA) released the proposed **produce safety rule** this January. In it are sweeping and specific guidelines for growing fresh produce that are intended to make the safest produce supply in the world even safer. The rule covers practices regarding manure, water sources and uses with regards to farming, employee hygiene and training, and equipment sanitation. Some parts of the rule are very similar to past guidelines regarding food safety, some are not. This program will walk you through the main features of the produce rule.

The public comment period closes September 16th. The comment period is not valuable if the public is either not well informed of the legislation or does not take advantage of it. This program will give you the information and confidence you need to make informed comments while you still can. Luncheon to be catered by **Cherry Deli** in Grand Rapids, MI. Vegetarian choices will be available. If you have other dietary restrictions, please contact Kendra Wills at 616.336.2028 or willsk@anr.msu.edu

Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status, or veteran status.

WEBSITES OF INTEREST

Insect and disease predictive information is available at:

<http://enviroweather.msu.edu/homeMap.php>

This issue and past issues of the weekly FruitNet report are posted on our website

<http://agbioresearch.msu.edu/nwmihort/faxnet.htm>

60 Hour Forecast

<http://www.agweather.geo.msu.edu/agwx/forecasts/fcst.asp?fileid=fous46ktvc>

Information on cherries is available at the new cherry website:

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

Fruit CAT Alert Reports has moved to MSU News <http://news.msue.msu.edu>

Tart Cherry Raw Product Reports – 2013

<http://www.cherryboard.org/Week82013.pdf>