

# Northern Michigan FruitNet 2014

## Northwest Michigan Horticultural Research Center

### Weekly Update

August 19, 2014

#### CALENDAR OF EVENTS

- 8/21**            **SW Pre-harvest Grape Meeting**  
Berrien Springs, MI
- 8/27**            **Chestnut Scouting Meeting**  
Clarksville Research & Extension Center
- 9/4**             **NWMHRC Open House – 35<sup>th</sup> Anniversary**
- 9/5**             **Weathering the Climate: Cultivation & Technology in Grape Production**  
NMC Hagerty Center, Traverse City
- 9/7**             **Harvest Meeting of the Midwest Nut Producers Council**  
Clarksville Research & Extension Center

#### 2015

- 1/13-14**        **NW Michigan Orchard & Vineyard Show**  
Grand Traverse Resort, Acme, MI
- 3/4**             **Winery Development Pre-Conference**  
MSU – Kellogg Hotel & Conference Center
- 3/4-6**          **Michigan Grape & Wine Conference**  
MSU – Kellogg Hotel & Conference Center

#### **NORTHWEST MICHIGAN REGIONAL REPORT**

E. Pochubay, N. Rothwell, and D. Elsner, MSUE Educators

Cherry harvest is winding down.

Tart cherry harvest is winding down in northwest Michigan. Most growers have or will be finishing up Montmorency this week, and some Balaton orchards have yet to be harvested. Despite this long harvest season, quality of fruit has been good up to the end. We attribute this high quality in part to the cool weather conditions throughout July and into August. Peach harvest has begun, and quality is good. Some peach orchards were impacted by the harsh winter, but peaches will still be available throughout the region. Apples are sizing well, particularly with the recent rains. Apples are also beginning to color. We will likely begin apple maturity testing in two weeks.

Overall pest and disease pressure in most of northwest Michigan cherry and apple orchards has been low in the last several weeks. Most cherries have been harvested at this point and because insect and disease pressure has been low, some cherry growers are forgoing post-

harvest applications for fruit flies and leaf spot. With the exception of a few rainy days in the last two weeks, conditions have been dry and two spotted spider mites are noticeable in some orchards. Second generation **San Jose scale** males are flying and crawlers typically become active approximately two weeks following male emergence. **Spotted tentiform leafminer** moth numbers are down in the apples at the station this week (28.5 per trap). **Obliquebanded leafroller moths** are still active in low numbers, and we caught a total of three **codling moths** at the station this week. We have caught **apple maggot** in the last two weeks here at the station. Higher than normal precipitation and cooler temperatures are predicted for the remainder of August. There is a chance of rain every day this week and although we could receive a significant amount of rainfall, these weather systems are not predicted to produce severe storms or hail.

## **Wine Grapes**

Outcomes of winter injury are continuing to appear in area vineyards, in the form of collapsing shoots. The drought stress in recent weeks has exasperated the inability of cold-injured trunks and cordons to keep up with the water demands of shoots and enlarging berries. It is still a bit of a challenge to guesstimate the total crop for certain varieties, as vineyard condition and crop load vary a great deal between sites. In the last week I have seen everything from Cabernet Franc with a great crop, down to a Gewurztraminer block where over half the vines appear to be dead. I'm still estimating that most Riesling and Chardonnay vineyards run from 30 -60% of a full crop, but there are places where these are worse.

**Powdery mildew** is on the upswing, with extensive leaf and fruit infestations. Continued shoot positioning and leaf pulling will improve the situation and aid in getting good spray penetration to the clusters for powdery mildew control now and avoiding cluster rots later in the season.

Insect activity has been light this summer. **Hog sphinx**, **Achemon sphinx** and **Pandora sphinx** caterpillar are now getting large and greatly increasing their leaf consumption as they approach maturity.

## **Conference on climate and technology in grape production**

Northwestern Michigan College and Michigan State University are hosting a conference, "Weathering the Climate: Cultivation and Technology in Grape Production," **Friday, September 5** at the Hagerty Center at NMC's Great Lakes Campus, 710 E. Front Street, Traverse City.

The conference features experts in agricultural technology, geography, horticulture, and other areas related to unmanned aerial systems technology and the science of grape production.

Sessions cover topics like Climate Change and Potential Agronomic Impacts in the Great Lakes Region, Impacts of the 2014 Polar Vortex on Grapes: Lessons Learned, How to Manage Grapes for Our Changing Climate, and Unmanned Systems and Technology Applications in Viticulture. There will be a vineyard demonstration of the application of unmanned systems at Chateau Chantal Vineyard and Winery, and a panel of grape growers who will discuss practical applications of unmanned systems technology in vineyard management.

Experts speaking at the Weathering the Climate conference include Brian Matchett, MSU Institute of Agricultural Technology; Jeff Andresen, MSU Department of Geography, Imed Dami, Ohio State University Department of Horticulture and Crop Science; Paolo Sabbatini, MSU

Department of Horticulture; Duke Elsner, MSU Extension; Ed Bailey, NMC Technical Division; and Tony Sauerbrey, NMC Unmanned Aerial Systems.

The panel will include Ben Bramer, Agrivine; Stan Howell, MSU Department of Horticulture; Mark Johnson, Chateau Chantal; Larry Mawby, L. Mawby Vineyards; James Peters, Staits Area Grape Growers Association and Coenraad Stassen, Brys Estate Vineyard.

Registration for the event can be done online by visiting [nmc.edu/viticulture](http://nmc.edu/viticulture) and following the links. Cost for the conference is \$60, conference and dinner is \$85. Rooms have been made available for conference attendees to reserve at the Bayshore Resort.

#### FOR MORE INFORMATION

Brian Matchett, Regional Program Coordinator, Northwest Michigan Office,  
MSU Institute of Agricultural Technology  
(231) 995-1719  
[bmatchett@nmc.edu](mailto:bmatchett@nmc.edu)

### Northwest Michigan Horticultural Research Center Annual Open House September 4, 2014

#### Concurrent Cherry, Grape, and Hop Sessions

- |             |   |
|-------------|---|
| 2:30 PM     | <b>Grounds Open</b>   |
| 3:00 – 3:30 | <b>NWMHRC Cover Crop Trials</b><br><i>Dr. George Bird, Dept. of Entomology, MSU</i>   |
| 3:30 – 4:00 | <b>Maximum Residue Limits in Cherries and Apples</b><br><i>Dr. Mark Whalon, Dept. of Entomology, MSU</i>  |
| 4:00 – 4:30 | <b>Comparative Results from New Cherry Training Systems</b><br><i>Dr. Greg Lang, Dept. of Horticulture, MSU</i>   |
| 4:30 – 5:00 | <b>New Developments Towards the Identification of an Armillaria Resistant Rootstock</b><br><i>Drs. Ray Hammerschmidt and Amy Iezzoni</i><br><i>Dept. of Plant Soil and Microbial Sciences, Dept. of Horticulture, MSU</i> |
| 3:00 – 5:00 | <b>Grape Variety Trial after Cold Damaging Winter of 2013-2014</b><br><i>Dr. Paolo Sabbatini, Dept of Horticulture, MSU</i><br><i>Dr. Duke Elsner, Small Fruit Educator, MSU Extension</i>                                |
| 4:00 – 5:00 | <b>MSU Hop Research, Education, and Outreach</b><br>Walk through the NWMHRC hop cultivar trial; discuss best management practices and hop pests and diseases<br><i>Dr. Rob Serrine, MSU Extension</i>                     |
| 5:15 – 6:15 | <b>Social Hour</b>  |

The NWMHRC Open House is hosted by AgBioResearch, Michigan State University Extension, the Leelanau Horticultural Society, and the Northwest Michigan Horticultural Research Foundation. Educational sessions are *free* and open to all. To reserve a dinner ticket, please call (231) 946-1510 or email Jackie at [baase@msu.edu](mailto:baase@msu.edu) by **August 29, 2014** or after August 29, contact Nikki at 231-946-1510 or [rothwel3@msu.edu](mailto:rothwel3@msu.edu). Tickets can be purchased at the door. The dinner will be catered by *Ethnic Garden Catering* and will feature locally produced food; cost for dinner tickets is \$15 per person. For more information, contact the NW Michigan Horticultural Research Center at 231-946-1510.

We hope to see many of you at this important event to help us celebrate our 35<sup>th</sup> anniversary!

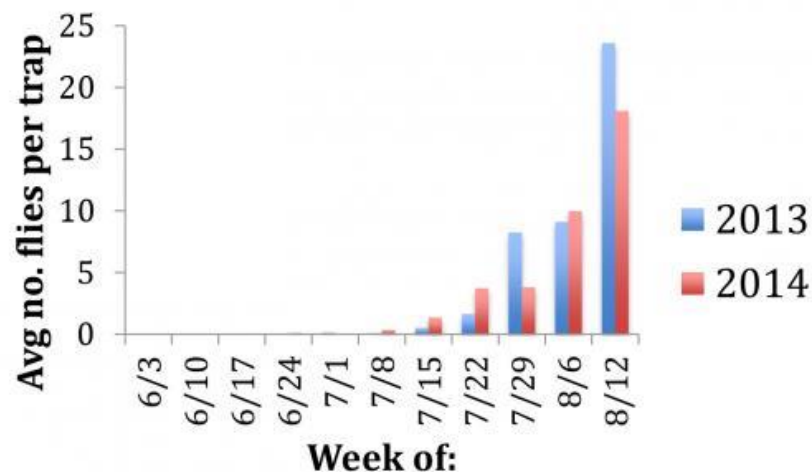
### MICHIGAN SPOTTED WING DROSOPHILA REPORT FOR August 12, 2014

**Spotted wing *Drosophila* numbers continue to rise across the monitoring network. Protect susceptible crops where they are detected.**

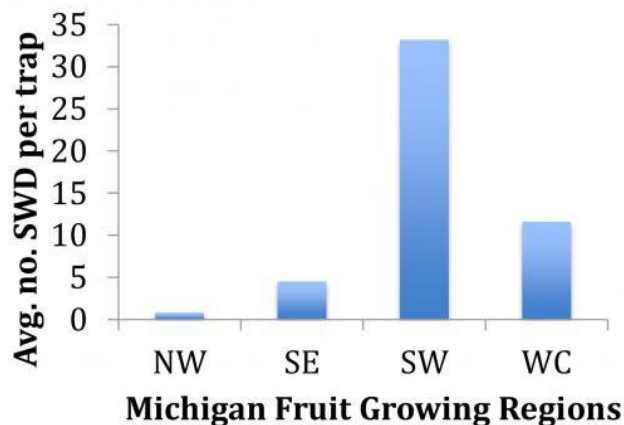
Posted on **August 13, 2014**, **MSUE News**, by [Julianna Wilson](#), and Rufus Isaacs, Michigan State University Extension, Department of Entomology

This is the eighth weekly report of the [Michigan State University Extension spotted wing \*Drosophila\*](#) (SWD) statewide monitoring program for 2014. Our network of traps across more than 100 sites was checked during the week of Aug. 4 and shows that SWD activity is continuing to increase, particularly in southwest and west central counties. There was a total of 1,268 male and 513 female SWD trapped from the following counties in our trapping network: Berrien, Van Buren, Allegan, Ottawa, Kalamazoo, Kent, Montcalm, Oceana, Muskegon, Leelanau, Benzie, Grand Traverse, Ingham, and new this week, Ionia. No SWD were captured in Antrim County traps this week. Traps in Genesee, Lapeer, Livingston, Macomb and Oakland counties will be checked later this week with an update to this report at that time.

#### Comparison of average trap catches by week between 2013 and 2014.



Comparison of average SWD adults captured per trap by region. This week trapping is reported from 31 sites in the northwest (NW) counties of Antrim, Benzie, Grand Traverse, and Leelanau; two sites in the southeast (SE) county of Ingham; 46 sites in the southwest (SW) counties of Allegan, Berrien, Kalamazoo, Ottawa, and Van Buren; and 19 sites in the west central (WC) counties of Ionia, Kent, Montcalm, Muskegon, and Oceana.



Of the traps that were checked so far this week, 68 percent of traps contained SWD, which is up from 53 percent last week. The average number of SWD per trap is also up from 10 last week to 18 this week across the network, with more than 33 SWD per trap on average in southwest counties. If SWD has not been found in your monitoring traps, be on alert for this pest as susceptible fruit crops start or continue to ripen as it seems that the mid-late summer increase in population is underway, at least in the southwest and west central regions. Susceptible crops include most thin-skinned fruit, such as raspberries, blueberries and cherries.

Spotted wing *Drosophila* can only infest fruit when they are ripening or ripe, so the focus of SWD monitoring and management efforts should be in susceptible fruit that should be treated **only if SWD are detected** to minimize the risk of developing pesticide-resistant populations of SWD. In addition to the use of monitoring traps to detect the adult flies, a simple salt solution of 1 cup of salt per gallon of water can be used to assess fruit for larval infestation. Leave the fruit in the solution for a minimum of 15 minutes then check for small, white larvae.

For more information on SWD monitoring and management strategies, and to read past reports, visit [MSU's Spotted Wing \*Drosophila\* website](#).

The weekly SWD statewide monitoring report has been funded through [Project GREEN](#) and [Michigan State University Extension](#). This output is generated through a network of MSU Extension field staff and campus specialists. We would like to acknowledge the following team members and thank them for their weekly scouting efforts and input into this report: Rufus Isaacs, Keith Mason, Steve VanTimmeren, Larry Gut, Peter McGhee, Michael Haas, Bob Tritten, Mark Longstroth, Brad Baughman, Carlos Garcia, Karen Powers and Nikki Rothwell.

*Dr. Isaacs' work is funded in part by [MSU's AgBioResearch](#).*

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<http://bit.ly/MSUENews>. To contact an expert in your area, visit <http://expert.msue.msu.edu>, or call 888-MSUE4MI (888-678-3464).

## **MICHIGAN BROWN MARMORATED STINK BUG REPORT FOR August 15, 2014**

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### **No brown marmorated stink bugs were caught during the week of Aug. 8-15, 2014.**

Posted on **August 18, 2014**, **MSUE News**, by [Julianna Wilson](#), and Larry Gut, Michigan State University Extension, Department of Entomology

This is the sixth weekly report of the [Michigan State University Extension brown marmorated stink bug](#) (BMSB) statewide monitoring program for 2014. Out of the more than 80 sites being monitored throughout the state, no BMSB were captured in our traps this week, and there have been no reports of BMSB in sweep nets either.

The monitoring network uses pyramid-style, pheromone-baited traps set up at farms that grow a variety of fruit and vegetable crops including apples, tart cherries, sweet cherries, peaches, blueberries, raspberries, tomatoes, peppers and sweet corn. Sites have been selected that are known to favor BMSB near riparian areas or along major transportation corridors in the following counties: Monroe, Lenawee, Oakland, Macomb, Livingston, Ingham, Lapeer, Saginaw and Bay on the east side of the state, and Antrim, Grand Traverse, Leelanau, Benzie, Oceana, Newaygo, Kent, Ionia, Ottawa, Allegan, Van Buren and Berrien on the west side of the state.

Although we continue to catch little to no BMSB each week, we know that BMSB are present in Michigan because of reports that have come mainly from homeowners in various parts of the state, and from sweep netting conducted in the edge of soybean fields. This monitoring network has been set up to provide early warning should BMSB start showing up in greater numbers in fruit and vegetable production areas as it has in mid-Atlantic states over the last decade.

To learn more about how to monitor for the brown marmorated stink bug, distinguish it from other similar-looking stink bugs, what crops it favors, and management strategies should populations reach the threshold where management is necessary, visit [MSU's Brown Marmorated Stink Bug website](#).

The weekly BMSB statewide monitoring report has been funded through [Project GREEN](#) and [Michigan State University Extension](#). This output is generated through a network of MSU Extension field staff and campus specialists. We would like to acknowledge the following team members and thank them for their weekly scouting efforts and input into this report: Peter McGhee, Michael Haas, Bob Tritten, Mark Longstroth, Brad Baughman, Carlos Garcia, Amy Irish-Brown, Lina Rodriguez Salamanca, Ben Philips, Ben Werling, Mark Whalon, Karen Powers, and Nikki Rothwell.

*Dr. Gut's work is funded in part by [MSU's AgBioResearch](#).*

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## IS SWITCHGRASS A HOST FOR JAPANESE BEETLE AND SPOTTED WING DROSOPHILA ?

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**Research is being conducted to determine if switchgrass is a vector and host for common insect pests and crop diseases in cropping systems.**

Posted on **August 12, 2014**, MSUE News, by [Charles Gould](#), and Ben Bailey, Michigan State University Extension

Switchgrass is a native perennial plant species that grows across much of the United States. It is used to control soil erosion, as a wildlife cover and a feedstock for biofuel production. Due to its widespread nature, switchgrass grows in or adjacent to many different types of cropping systems, including commercial fruit crops. Research is being conducted around the United States, including Michigan, to determine if switchgrass is a vector and host for common insect pests and crop diseases in cropping systems. Blueberry growers in Michigan have asked if switchgrass is a host for Japanese beetle and [spotted wing Drosophila](#). The answer to their question lies in understanding the life cycle of the two insects.

Japanese beetle adults emerge in the summer and feed on the foliage of many plants. Japanese beetles lay their eggs in grass, since the beetle larvae feed on grass roots. They prefer to lay their eggs in irrigated and mown grass over grass that is non-irrigated and tall. The mowed grassy row middles in irrigated blueberry fields are attractive egg laying sites. Some blueberry growers have removed their grassy row middles to reduce the number of larvae in their fields.

The spotted wing Drosophila (SWD) is an invasive pest of soft thin-skinned fruit such as raspberries and blueberries. The insect has the ability to attack sound fruit as it ripens. The SWD lays its eggs under the skin of the fruit, in the soft flesh of fruit. When the larvae hatch they consume the fruit from the inside out. The fly reproduces very quickly. It has a short life span and female flies lay hundreds of eggs. The whole life cycle of the insect revolves around soft-skinned fruit and the SWD population moves from one species of fruit to another through the growing season as different fruit ripen and then disappear.

So can switchgrass serve as a host and vector for these two fruit pests? Since switchgrass does not produce a soft thin-skinned fruit, it is not attractive to SWD and is therefore not a host or even an attractive site. By virtue of the fact that switchgrass is a grass, it is possible that switchgrass could serve as a vector for Japanese beetle. However, it is commonly grown without irrigation and allowed to grow until it is harvested in the fall after a killing frost. It is important to note that switchgrass is not listed on Japanese beetle preferred grass feeding lists, nor is it listed under any Japanese beetle host specie lists. Rufus Isaacs, fruit specialist in the Entomology Department at Michigan State University, points out that switchgrass plantings are more likely to support predators that eat Japanese beetles. Japanese beetle populations have steadily declined over the past decade due to the effectiveness of its natural enemies.

Scouting fields is the most effective way to monitor Japanese beetle and spotted wing Drosophila activity. Scouting information can be found at the [Integrated Pest Management](#) website.

As new uses for crops such as switchgrass develop, it is important to consider the unintended impacts of the introduction or expansion of new or minor crops. The examples of the insects

above are a reminder that the diversity of Michigan agriculture requires diligence in protecting our important ecosystem.

[Michigan State University Extension](#) continues to offer an unbiased perspective of the biofuel industry to inform citizens on this topic. For more information on [switchgrass](#), [biofuels](#), and [Japanese beetle](#) and [spotted wing Drosophila](#) control, refer to archived articles on the MSU Extension News website.

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(231) 995-1719  
[bmatchett@nmc.edu](mailto:bmatchett@nmc.edu)



## **SOUTHWEST GRAPE PRE-HARVEST MEETING**

**Date:** August 21, 2014

**Time:** 5:00 pm - 8:00 pm

**Location:** Lemon Creek Winery, 533 E. Lemon Creek Rd., Berrien Springs, MI 49013

**Contact:** Brad Baughman, Berrien County Horticulture Extension Educator.

[baughm30@anr.msu.edu](mailto:baughm30@anr.msu.edu) (269)-944-0157

Southwest Grape Preharvest Meeting Thursday, August 21st 5-8 p.m. Lemon Creek Winery 533 E. Lemon Creek Road, Berrien Springs, MI 49103. This meeting is an opportunity for the grape grower and processor community of Southwest Michigan to discuss the challenges and successes of the growing season thus far, spray decisions leading up to harvest, recovery from 2013-2014 winter injury, and other issues with each other and with experts from Michigan State University (MSU). Dinner is included in registration and will be served at 5 p.m. 2 RUP recertification credits have been requested. Topics and speakers will be: "Rebuilding winter-injured vineyards" (Tom Zabadal, SW Michigan Research and Extension Center), "Pre-harvest insect management decisions" (Rufus Isaacs, MSU Department of Entomology), "Late-season disease management" (Annemiek Shilder, MSU Department of Plant, Soil, & Microbial Sciences), "Canopy management after winter injury" (Paolo Sabbatini, MSU Department of Horticulture) Cost: \$15 per person.

## **WEBSITES OF INTEREST**

This issue and **past issues of the weekly FruitNet** report are posted on our website:  
[http://agbioresearch.msu.edu/centers/nwmihort/nwmihort\\_northern\\_michigan\\_fruit\\_net](http://agbioresearch.msu.edu/centers/nwmihort/nwmihort_northern_michigan_fruit_net)

**Insect** and **disease** predictive information is available at:

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

### **60 Hour Forecast:**

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

Information on **cherries** is available at the new cherry website:

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

Information on **apples**:

<http://apples.msu.edu/>

**Fruit CAT Alert Reports have moved to MSU News:**

<http://news.msue.msu.edu>