

## **Northern Michigan FruitNet 2017 Northwest Michigan Horticultural Research Center**

Weekly Update

**FruitNet Report – August 22, 2017**

### **CALENDAR OF EVENTS**

- 8/24                      NWMHRC Open House, Equipment Demo and  
Leelanau Hort Society Annual Meeting and Dinner  
**\*Please RSVP to Jenn at 231-946-1510 or  
[goodr100@msu.edu](mailto:goodr100@msu.edu) by August 21, 2017**
- 9/5                        Join us Sept. 5: Opportunity for vineyard and  
winery managers  
NWMHRC, 10AM – 5:30PM  
**\*Please RSVP to Jenn at 231-946-1510 or  
[goodr100@msu.edu](mailto:goodr100@msu.edu)**

### **What's New?**

- Join us Sept. 5: Opportunity for vineyard and winery managers
- NORTHWEST MICHIGAN HORTICULTURAL RESEARCH CENTER ANNUAL OPEN HOUSE – Agenda included
- Managing invasive insect pests in Michigan vineyards

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### **NEW ARTICLES**

## Join us Sept. 5: Opportunity for vineyard and winery managers

Program and winery tour will feature internationally Keren Bindon, renowned leader in phenolics and color compounds.

Posted [Joy Landis](#), MSU IPM Program, MSUE News



Photo by MSU Photography.

Michigan State University is hosting an event for vineyard and winery managers on Tuesday, Sept. 5, 2017, at the [Northwest Michigan Horticulture Research Center](#) (NWMHRC), [6686 S Center Hwy, Traverse City, MI 49684](#). Organized by MSU Horticulture's [Paolo Sabbatini](#), the featured speaker is [Keren Bindon](#), senior research scientist at the [Australian Wine Research Institute](#) (AWRI). Bindon is internationally respected for her knowledge of phenolics and color compounds.

As research scientist at the AWRI in Australia, Bindon has specialized in various secondary fruit metabolites, following their chemical destiny from the vineyard, the grapes, to the cellar and the wines. Her viticultural research focus has been water deficit and canopy management and their impact on phenolic and tannin chemistry during the formation process and their binding properties with grape cell walls.

### Program agenda

- 10 a.m. — Welcome and introduction, Thomas Todaro and Duke Elsner, [MSU Extension](#), and Nikki Rothwell, NWMHRC
- 10:15 – 11:15 a.m. — “Managing phenolics in the vineyard and winery,” Keren Bindon, senior research scientist, AWRI
- 11:15 a.m. – 12:15 p.m. — “Canopy management efficiencies are highly modulated by the climate conditions,” Paolo Sabbatini, associate professor, MSU Department of Horticulture
- 12:30 – 1:30 p.m. — Lunch at the NWMHRC (provided)
- 1:30 – 5:30 p.m. — Tour of vineyards and wineries

**This event is free, but please RSVP if you will attend for lunch** by calling 231-946-1510 or emailing [goodr100@msu.edu](mailto:goodr100@msu.edu). We look forward to a great day of sharing information and discussion.

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## **NORTHWEST MICHIGAN HORTICULTURAL RESEARCH CENTER ANNUAL OPEN HOUSE**

The Northwest Michigan Horticultural Research Center's (NWMHRC) annual open house is scheduled for Thursday, August 24, 2017. This year's event will include wine tasting, an equipment demonstration, dinner, and the Leelanau Horticulture Society's annual meeting.

This year's program will include an equipment show plus we are re-introducing equipment demonstrations. We have invited equipment companies to bring in new orchard equipment and technologies for demonstration purposes. We hope to be able to showcase new advancements in orchard assist technologies for the 2017 NWMHRC Open House. We have a selection of platforms, sprayers, mowers and tractors already signed up to be showcased and demonstrated.

Free educational wagon tours of the NWMHRC will feature MSU specialists and will take place from 3:00 - 4:45PM. The tour will include wine grape and tree fruit specialists that will speak on a variety of topics: Dr. Todd Einhorn will present on his work using ethephon for fruit removal on young trees and Apogee use in Montmorency tart cherry as well as research on increase fruit size in sweet cherries. Dr. George Sundin will be on hand to discuss 2017 cherry leaf spot efficacy results. Dr. Amy Iezzoni will update attendees on MSU rootstocks, and Dr. George Bird will present his latest results on cover crops in orchard systems.

Growers are encouraged to meet with equipment vendors and participate in the demonstrations during the social hour from 4:30 – 6:00PM. Dinner and the Leelanau Horticultural Society's annual meeting will follow at 6:00PM.

As in past years, the social hour and dinner have been sponsored by the Leelanau Horticultural Society and Parallel 45 with the educational portion sponsored by AgBioResearch, MSU Extension, and the NW Michigan Horticultural Research Foundation. **To reserve or purchase a dinner ticket, please call (231) 946-1510 or email Jenn at [goodr100@msu.edu](mailto:goodr100@msu.edu) by August 21, 2017. The dinner will be catered by *Ethnic Garden Catering* and will feature locally produced food; cost for dinner tickets is \$10 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 fun and educational event!

**Northwest Michigan Horticultural Research Center Annual Open House**

**6686 S. Center Highway, Traverse City, MI 49684**

**August 24, 2017**

1:00                    **Grounds open for equipment viewing**

**Concurrent Cherry Session**

**3:00 – 3:10            MAEAP Presentation**

*Lizzy Freed, MAEAP*

*Dan Busby, MAEAP*

**3:10 – 3:25            An update on MSU rootstocks**

*Dr. Amy Iezzoni, Department of Horticulture, MSU*

**3:25 – 3:40            Roles of cover crops and soil amendments in orchard establishment**

*Dr. George Bird, Department of Entomology*

**3:40 – 3:55            Ethephon for fruit removal on young trees and Apogee use in Montmorency tart cherry**

*Dr. Todd Einhorn, Department of Horticulture, MSU*

**4:00 – 4:15            Cherry leaf spot management in a rainy season**

*Dr. George Sundin, Department of Plant, Soil and Microbial Sciences, MSU*

**Concurrent Grape Session**

3:00 – 3:15           **Introduction**

*Thomas Todaro, MSU Extension*

3:15 – 3:30           **Future winegrape plantings and proposed research at the NWMHRC**

*Thomas Todaro, MSU Extension*

*Dr. Paolo Sabbatini, Department of Horticulture, MSU*

3:30 – ~~4:00~~4:45           **Harvest time pests and SWD control practices for grapes in 2017**

Thomas Todaro, MSU Extension

~~43:0045~~ – 4:1500

**Environmental issues and vine management**

Paolo Sabbatini, Department of Horticulture, MSU

**Concurrent Cherry Session**

4:15 – 4:30

**Louis Gelder and Sons**, 1769 Dewey Ave., Benton Harbor, MI 49022, (269) 934-9900

- *Forklift*
- *Blosi Platform*
- *Fisher Mower*

4:30 – 4:45

**Thomas Bros Equipment Sales**, 41764 Red Arrow Hwy., Paw Paw, MI 49079, 269-657-3735

- *Agtec sprayer*

4:45 – 5:00

**Ina Store Inc.**, 10035 21 Mile Rd, Tustin, MI 49688, 231-825-2575

- *Case tractor/IH Tractor with auto-guidance*
- *Case IH vineyard style tractor*

5:00 – 5:15

**Gillisons Variety and Fabrication Inc.**, 3033 Benzie Hwy, Benzonia, MI 49616, 231-882-5921

- *Orchard Sprayer*
- *Various orchard equipment*

5:15 – 5:30

**Bader and Sons**, 4363 South Morey Rd., Lake City, MI 49651, 231-839-8660

- *John Deere Orchard Tractors*

5:30 – 5:45

**Suttons Bay Agricultural Support**, 1950 N. Mork Rd., Suttons Bay, MI 49682, 231-271-3202

- *Tractors*

5:45 – 6:00

**Herman's Mobile Service**, 2875 S. Maple Valley Rd., Suttons Bay, MI 49682, 231-256-0065

- *Frost fan*

6:00 – 6:30

**Social Hour**

~~66:4530~~

**Dinner and Leelanau Horticultural Society Annual Meeting**

The NWMHRC Open House is hosted by AgBioResearch, Michigan State University Extension, the Leelanau Horticultural Society, [Parallel 45](#), 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 Jenn at [goodr100@msu.edu](mailto:goodr100@msu.edu)

~~by August 21, 2017.~~ 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 \$10 per person. For more information, contact the NW Michigan Horticultural Research Center at 231-946

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## Managing invasive insect pests in Michigan vineyards

Watch this video to learn more about monitoring for invasive insect pests in Michigan grapes.

Posted by **Keith Mason**, Michigan State University, Department of Entomology, MSUE News



Scout for brown marmorated stink bugs during harvest in 2017. Photo by Susan Ellis, Bugwood.org.

Monitoring for invasive insect pests is a crucial management tool for wine grape growers, especially during harvest. The [Michigan Grape and Wine Industry Council](#) provided funding for Michigan State University researchers to monitor for invasive insect pests; compare susceptibility of grape cultivars to infestation by spotted wing Drosophila (SWD); and test the efficacy of different approaches to vinegar fly and sour rot maintenance. Growers can watch a short video, "[Biology and management of invasive insect pests in Michigan vineyards](#)," that highlights this project.

Fifteen Michigan vineyards were monitored for four species of invasive moths, with no detections of these species in 2014 or 2015. Incidentally, no detections have occurred in similar monitoring in 2016 and 2017.

[Brown marmorated stink bug](#) was not detected in vineyards during this study. However, populations of this pest have increased in subsequent years, and during 2017 we are catching this pest in traps and finding them in vineyards during scouting. We have not

had problems with this insect at harvest yet, but growers and scouts should use this [video](#) as a reminder to **scout for brown marmorated stink bugs during harvest in 2017**.

The invasive vinegar fly, [spotted wing Drosophila](#) (SWD), was present in all sampled locations, and the highest SWD captures occurred during harvest. Populations of this pest have also been increasing, and SWD should be a concern for some growers in 2017. Early ripening red varieties may be the most susceptible to SWD infestation, and infestation by other *Drosophila* species was similar across varieties. Leaf-pulling and insecticide application reduced fruit fly numbers and sour rot incidence, but these differences were not statistically significant.

To access “[Biology and management of invasive insect pests in Michigan vineyards](#)” and other wine grape research videos on a variety of topics, go to the [Michigan State University Extension Grapes Research page](#) or see below.

- **Watch video:** [Developing methods for use of own-rooted Vitis vinifera vines in Michigan vineyards](#) by Tom Zabadal and Jenny Schoonmaker, MSU Department of Horticulture
- **Watch video:** [Grape IPM Program by](#) Rufus Isaacs, MSU Department of Entomology
- **Watch video:** [Impact and spread of grapevine leafroll virus](#) by Annemiek Schilder, MSU Department of Plant, Soil and Microbial Sciences
- **Watch video:** [Leaf removal: A tool to improve crop control and fruit quality in vinifera grapes](#) by Paolo Sabbatini, MSU Department of Horticulture
- **Watch video:** [Strategic modernization of Enviroweather stations serving the Michigan grape and wine industries](#) by Jeff Andresen, MSU Department of Geography

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## Articles featured in past FruitNet Reports

### Predicted 2017 Apple Harvest Dates

Phillip Schwallier, District Horticulture Educator Amy Irish-Brown, District ICM Educator MSU Extension

The predicted harvest dates for every MAWN weather station is now available on Enviroweather web site at Michigan State University. We have less confidence in this year’s prediction for the middle of the state. Frost and a long cold bloom make it difficult to predict the exact full bloom dates. Apple set is from two year old and in some places from one-year-old wood that will produce a very mixed maturity at harvest. In general, 2017 Predicted Harvest Dates are roughly a few days ahead of normal except in the north, which might be normal. Predicted dates are a fairly normal except in the north

ahead of last year. Bloom dates this spring were early in the south and normal in the north. May was a cold month and a long drawn out bloom period especially in the middle of the state. We do expect mixed maturity at harvest time due to the long bloom.

As always, the weather seems to be unusual each year and 2017 was no different. It began with what appeared to be another very early spring, however, cold May weather delayed bloom to a more normal timing from the middle state to the north. Most areas bloomed early. The cold May was also very dry and June followed with normal to hot temperatures, which give us early to normal predicted harvest dates. Frost damage is considerable and the state's cropload is approximately 65% of normal. The tops of trees are heavy and the bottoms are light. Blocks with light croploads will mature 3 or 4 days sooner than the predicted harvest dates. Heavy croploads will mature 7 days later than the predicted dates.

The normal harvest dates for other varieties are listed in Table 3 for the Grand Rapids area. This year's 2017 predicted dates are a rough estimate based on the McIntosh, Jonathan and Red Delicious predicted dates. Other areas of the state should adjust non-predicted varieties based on their own history. ReTain application should be applied 30 DBH (days before harvest). Use Table 3, 2017 Predicted Harvest Dates for Other Varieties, to time ReTain applications and adjust for varieties and locations.

**Table 1. 2017 predicted peak harvest dates.**

Full bloom date 2017				Predicted harvest date 2017			
Station	McIntosh	Jons	Reds	McIntosh	Jons	Reds	Observer
SWMREC	23-Apr	24-Apr	25-Apr	28-Aug	15-Sep	22-Sep	Shane
Deerfield	25-Apr	26-Apr	27-Apr	29-Aug	18-Sep	25-Sep	Tritten
Romeo	28-Apr	1-May	1-May	2-Sep	25-Sep	1-Oct	Tritten
Peach Ridge	1-May	5-May	7-May	5-Sep	27-Sep	4-Oct	Irish-Brown
Hart	11-May	13-May	14-May	13-Sep	30-Sep	6-Oct	Irish-Brown



NWMHRS	19-May	20-May	21-May	19-Sep	8-Oct	14-Oct	Rothwell
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**Table 2. 2017 predicted peak harvest dates compared to normal and last year.**

Days ahead of normal				Days ahead of last year		
Station	McIntosh	Jons	Reds	McIntosh	Jons	Reds
SWMREC	10	6	6	2	1	0
Deerfield	10	3	7	3	-1	0
Romeo	11	0	2	5	1	4
Peach Ridge	10	-1	1	2	2	1
Hart	5	3	8	0	2	2
NWMHRS	3	-2	3	1	-8	-7

**Table 3. Normal and 2017 peak harvest dates for varieties for the Grand Rapids area**

Variety	Normal date	2017 predicted date
Paulared	8/24	8/19
Gingergold	8/26	8/21
Gala	9/10	9/5
McIntosh	9/15	9/5
Honeycrisp	9/18	9/15

Empire	9/26	9/25
Jonathan	9/28	9/27
Jonagold	9/28	9/27
Golden Delicious	10/2	10/1
Red Delicious	10/5	10/4
Idared	10/10	10/9
Rome	10/15	10/14
Fuji	10/25	10/24
Braeburn	10/25	10/24
Goldrush	11/1	10/31

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**WEB SITES OF INTEREST:**

Farmer to Farmer - Connecting Farmers, Cultivating Community

<http://www.f2fmi.com>

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://www.canr.msu.edu/nwmihort/nwmihort\\_northern\\_michigan\\_fruit\\_net](http://www.canr.msu.edu/nwmihort/nwmihort_northern_michigan_fruit_net)

60-Hour Forecast:

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

Information on cherries:

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

Information on apples:

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

Information on grapes:

<http://grapes.msu.edu>