

Northern Michigan FruitNet 2016 Northwest Michigan Horticultural Research Center

Weekly Update

FruitNet Report – August 16, 2016

CALENDAR OF EVENTS

- | | |
|-------------|---|
| 8/23 | Peach and Plum Variety Showcase
SW Michigan Research & Extension Ctr, 4:00 pm - 7:00 pm |
| 8/25 | NWMHRC Open House, ADENGA BELOW
3:00PM, NWMHRC |
| 8/27 | Fundraiser for Nate Wilson
<i>Gallagher Farm, 5:00 p.m. – 9:00 p.m.</i> |

What's New?

- **Wine Grape Update**
 - **Michigan spotted wing Drosophila report for Aug. 12, 2016**
 - **SWD and Wine Grapes**
 - **Michigan brown marmorated stink bug report for Aug. 12, 2016**
 - **Cherry Industry Administrative Board Weekly Raw Product**
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GROWING DEGREE DAY ACCUMULATIONS AS OF August 8, 2016 AT THE NWMHRC

Year	2016	2015	2014	2013	2012	2011	26 Yr. Avg.
GDD42	2777	2575	2381	2524	3169	2632	2611.3
GDD50	1855	1667	1518	1665	2138	1751	1696.5

**Wine Grapes
Duke Elsner, MSU Extension**

Early varieties have gone through veraison in the Grand Traverse region. Many vineyards are expressing some symptoms of drought stress, especially 1-3 old plantings without irrigation systems. I have seen a few varieties showing some shoot collapse in the research center plots; it is only at problems levels in Muscat Giallo.

A few sites have significant infestations of grape berry moth larvae feeding inside berries. Hornworm caterpillars of all sizes are now feeding on foliage. Their injury can usually be ignored on established vines in good health.

SWD Trap Update – August 12, 2016

**May and June, and July catches have been removed from table.*

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 = New catches

Total catches per region:

- Centerville Twshp. – 1,384
- S. of Suttons Bay – 2,148
- Old Mission – 1,343
- M-72 W corridor - 41
- Elk Lake Rd. – 1,761
- N. of Suttons Bay – 510
- Eastport - 1

Northport-Omena – 549
Benzie – 2,796
Yuba – 466
Bingham –21
East Leland – 11
E. of Suttons Bay – 1
Manistee – 191
S. of Elk Rapids – 142
NWMHRC – 506
Bingham – 3
***Abandoned block in Centerville – 504
Stoney Point – 49
Williamsburg – 5
Leland – 2
N. of Elk Rapids – 1
S. part of Grand Traverse Co. – 15
N. Antrim Co. – 70

Northwest Michigan Horticultural Research Center Annual Open House

August 25, 2016

Concurrent Cherry and Grape Sessions

- | | |
|-------------|---|
| 3:00 – 3:25 | Using Unmanned Aerial Vehicles for early detection of Cherry Leaf Spot
<i>Will Schultz, NWMHRC</i> |
| 3:25 – 3:50 | Update on Tart Cherry Scion and Rootstock Breeding
<i>Dr. Amy Iezzoni, Dept. of Horticulture, MSU</i> |
| 3:50 – 4:15 | SWD: How did we do in 2016?
<i>Dr. Nikki Rothwell, NWMHRC</i>
<i>Emily Pochubay, NWMHRC</i> |
| 4:15 – 5:00 | Insectary Plants to Enhance Beneficial Insects
<i>Marguerite Bolt, NWMHRC</i>
<i>Dan Gibson, Dept. of Entomology</i> |
| 3:30 – 4:45 | Status of Grape Variety Trial and Future Viticulture Plans
<i>Dr. Duke Elsner, Small Fruit Educator, MSU Extension</i> |

Dr. Paolo Sabatini, Dept. of Horticulture, MSU

5:00 – 6:00

Social Hour

6:00

Dinner and Leelanau Horticultural Society Annual Meeting

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 Jenn at goodr100@msu.edu by August 22, 2015.** 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 231-946-1510.

SWD and Wine Grapes

N.L. Rothwell, K.L. Powers, and E.A. Pochubay

We have had many recent calls about the concern of spotted wing *Drosophila* (SWD) and its potential to infest wine grapes. Based on past work, SWD does not seem to prefer to reproduce in wine grapes. We hypothesize that the wine grape skin is tougher than some of the other softer fruits, and we have not seen infestations of wine grapes in the field. However, this season we are catching high numbers of adult SWD in vineyards (Figure 1).

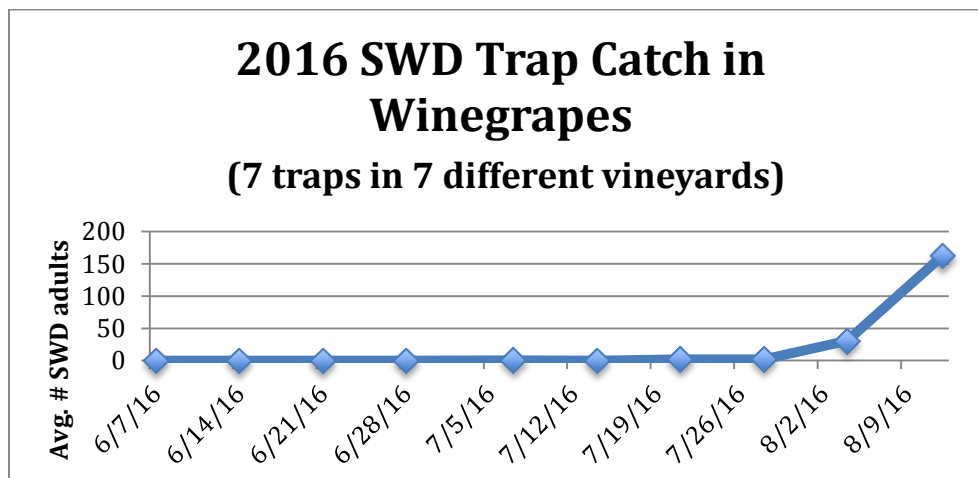


Figure 1. Average number of SWD adult catch in 7 NW MI vineyards in 2016.

In 2013 and 2014, we conducted laboratory bioassays to determine if SWD would reproduce in different varieties of winegrapes commonly grown in Michigan. We tested

five varieties of winegrapes: Chardonnay, Pinot Noir, Riesling, Gewürztraminer, and Siegerrebe. Five uniformly ripe grapes were placed in a one-quart food container; fruit was suspended over a sponge, and SWD diet was added to the assay arena. Five male and five female lab-reared SWD were placed into each container for each of the winegrape varieties. Each variety treatment was replicated five times. Assay arenas were held in a growth chamber at 25°C and 14:10 light:dark for 14 days. Fruit was placed in a brown sugar solution. Larvae that emerged from the fruit were placed on diet and reared out to the adult stage to ensure they were SWD. The number of eggs, larvae and pupae was recorded.

Our laboratory data suggest that SWD do not prefer to reproduce in winegrapes. In 2013, we did detect minor numbers of SWD in Pinot Noir, Riesling, Gewürztraminer, and Chardonnay (Figure 2). However, numbers were low, and Pinot Noir had the highest number of larvae with a total of 11. In the variety Riesling, we only found one egg. We repeated this experiment in 2014, and in 35 assay arenas with the same winegrape varieties, we found no SWD larvae or pupae in any treatment.

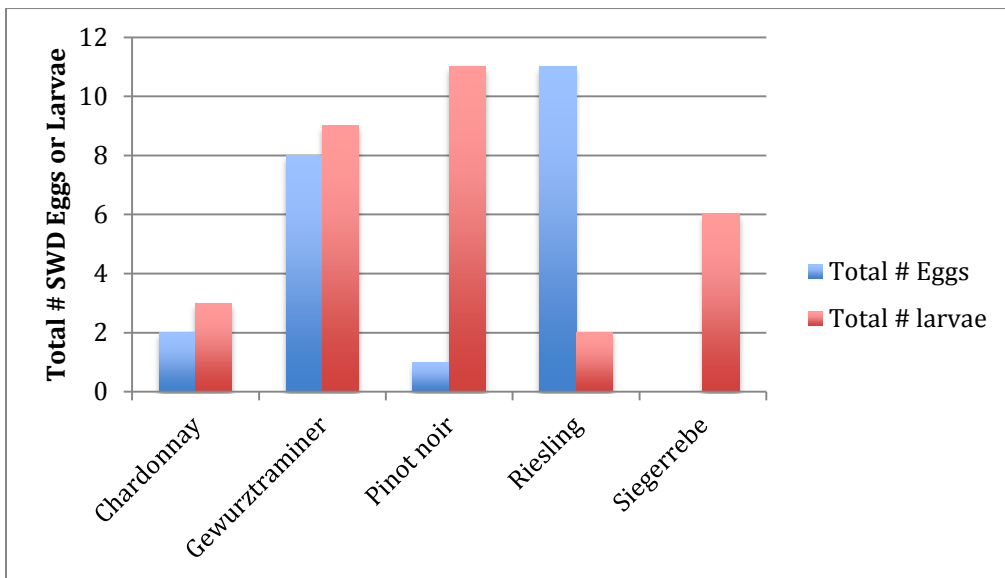


Figure 2. No. of SWD in five different winegrape samples.

Based on these data and data from other trials around the state, SWD will not as readily reproduce in winegrapes compared with other fruits, such as cherries or raspberries. However, if fruit are cracked, we hypothesize that SWD will lay eggs in damaged fruit. Additionally, we are currently investigating the potential of SWD to carry sour rot, which can be a potentially more serious problem than larvae in fruit. Research is underway in Ontario, and data are forthcoming.

Report Week 7 - 2016

Weekly Raw Product Report for Week 7 ending August 13, 2016 (Millions of pounds)

DIST.	Processed			YTD Total	2016 Est.	2015 Total
	Wk 7	YTD	Divert			
NW MI	11.2	133.1	10.6	143.7	165.0	87.8
WC MI	0.2	66.1	1.8	67.9	68.0	36.3
SW MI	0.1	21.7	0.4	22.0	20.0	32.5
NY	0.0	7.5	0.0	7.5	7.0	10.2
OR	0.2	4.5	0.0	4.5	3.0	1.9
PA	0.0	0.7	0.0	0.7	0.3	6.9
UT	0.6	43.1	5.4	48.5	50.0	40.3
WA	0.0	22.7	5.2	27.9	27.0	24.9
WI	<u>1.3</u>	<u>13.1</u>	<u>0.1</u>	<u>13.2</u>	<u>11.0</u>	<u>8.7</u>
Total	13.5	312.5	23.5	336.0	351.3	249.5

NW MI - Wk 7 is the last week of full production. There will be some production reported in Wk 8. Given the present figures, it is not likely that NW MI will reach its estimate. Some noted that cherries were smaller than usual.

WC MI - Very light production. Total very close to estimate.

SW MI - Finished. 10% above estimate.

NY - Finished. 7.1% above estimate.

OR - Finished. 50% above estimate.

PA - Finished. Crop small, but well above estimate.

UT - Finished. 3% below estimate.

WA - Harvest complete. 3.3% above estimate.

WI - Finished. 20% above estimate.

Please note: there may be corrections to handlers' reports.

Michigan spotted wing *Drosophila* report for Aug. 12, 2016

Traps continue to catch high numbers of spotted wing *Drosophila* flies. As high risk of infestation continues to be expected, susceptible crops must be protected.

Posted by [Julianna Wilson](#), Rufus Isaacs and Larry Gut, Michigan State University Extension, Department of Entomology, MSUE News

This is the [Michigan State University Extension spotted wing *Drosophila*](#) (SWD) Statewide Monitoring Network report. Trapping continues in fruit plantings that have yet to be harvested, including blueberry, grape, peach and raspberry sites. Out of the 78 traps collected during the week prior to Aug. 11, we captured a total of 2,605 female and 2,385 male SWD for a total of 4,990 SWD flies. We found SWD in 100 percent of the traps being monitored this week, indicating that SWD is active now in all locations around fruit farms.

Average SWD catch in traps being monitored this week was less than 60 SWD flies per trap in the southern part of the Lower Peninsula and almost 80 SWD flies in the northern part of the Lower Peninsula. Ripening fruit throughout the state continue to be at high risk for infestation if not protected.

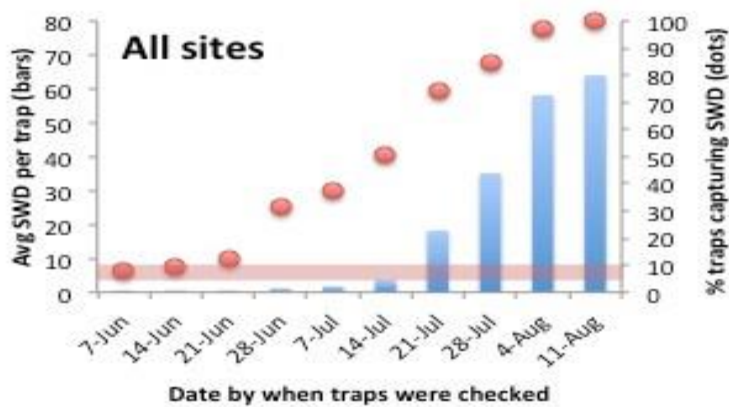
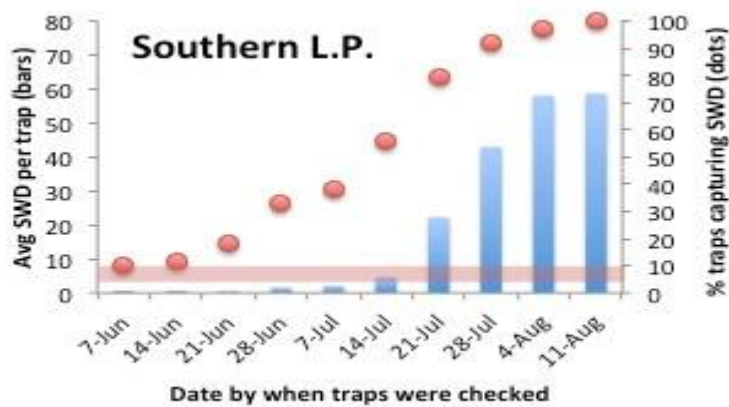
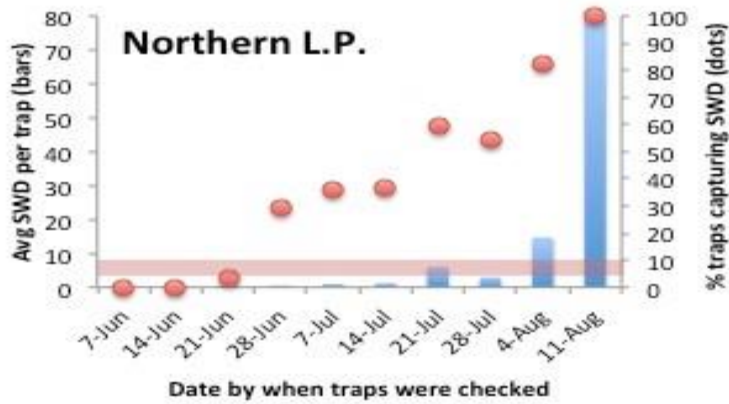
Some growers are having a hard time controlling SWD at this time. It is important to maintain short application intervals and to reapply after rain events – be sure to check product labels for reapplication restrictions and season maximums. Check with your [local Extension staff](#) or crop consultants and refer to the “[2016 Fruit Management Guide](#)” for recommendations for your crop.

Table 1. The regions that are being monitored for SWD in 2016, how each region is defined (by the counties listed), the number of sites in each region that were monitored this week, the cumulative total of SWD flies caught in traps by region and the average number of SWD flies caught per trap.

Region	Counties covered in the SWD monitoring network	No. sites this week	Cumulative SWD Total	Avg SWD flies per trap*
SE	Genesee, Ingham, Lenawee, Livingston, Macomb, Monroe, Oakland	16	3,615	82.3
SW	Allegan, Berrien, Kalamazoo, Ottawa, Van Buren	37	12,636	54.1
Ridge	Ionia, Kent, Muskegon	4	468	18.8
WC	Mecosta, Oceana	1	156	12

NW	Antrim, Benzie, Grand Traverse, Leelanau, Manistee	20	2,264	79.2
Grand Total:		78	19,139	64

* Average is for the week ending Aug. 11, 2016.



Bars represent the average number of SWD flies caught in monitoring network traps each week. Dots represent the percent traps that captured SWD that week. The shaded bar across each graph represents the proposed threshold for triggering management of the pest in susceptible crops. Northern L.P. encompasses all network traps in counties

north of and including Clare in the Lower Peninsula (n = 20 traps this week). Southern L.P. encompasses all network traps in counties south of Clare in the Lower Peninsula (n = 58 traps this week).

Traps in the network are baited with commercially available lures and placed in susceptible crop fields or orchards, or in a location adjacent to susceptible crops, in areas where SWD infestation has been recorded in the past. Commercial plantings included strawberry, blueberry, raspberry, grape, tart and sweet cherry, peach and plum. Counties included in the 2016 trapping network are Allegan, Antrim, Benzie, Berrien, Genesee, Grand Traverse, Ingham, Ionia, Kalamazoo, Kent, Leelanau, Lenawee, Livingston, Macomb, Manistee, Mecosta, Monroe, Muskegon, Oakland, Oceana, Ottawa and Van Buren.

For the most current recommendations for monitoring this pest, please refer to "[Monitoring traps for catching spotted wing Drosophila.](#)" You can find out more about how to identify and manage this pest in fruit crops by visiting [MSU's Spotted Wing Drosophila](#) website.

Michigan brown marmorated stink bug report for Aug. 12, 2016

With first detection of brown marmorated stink bug nymphs occurring this season in southwest Michigan, fruit and vegetable growers in the southern Lower Peninsula should be scouting for nymphs.

Posted by [Julianna Wilson](#), Michigan State University Extension, Department of Entomology, MSUE News

This is the third weekly report of the [Michigan State University Extension brown marmorated stink bug](#) monitoring network. Traps were checked at 81 sites for brown marmorated stink bug nymphs and adults using pyramid or rescue-style traps baited with commercial lures. We have now caught a total of 34 brown marmorated stink bug in traps this season, the majority of which have come from six vineyards in Berrien and Van Buren counties. The rest were caught in three apple orchards (one each in Berrien, Macomb and Van Buren counties), one peach orchard (Berrien County) and at an urban site in Berrien County. This week, 2 nymphs (from a vineyard in Berrien County) and 1 adult (from an apple orchard in Van Buren) brown marmorated stink bug were caught out of the 112 traps deployed.

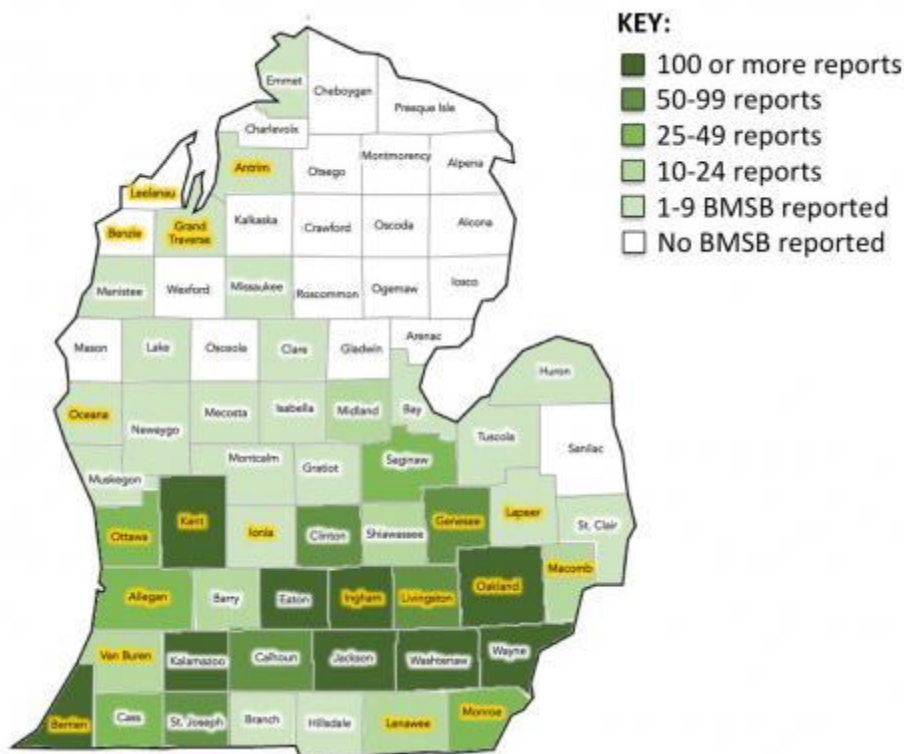
Growers in the southern part of the Lower Peninsula are encouraged to scout for brown marmorated stink bug – if they haven't in the past – based on where we know it to be well-established as a nuisance pest in homes (see map). Traps are easy to deploy and check, but the area of influence for a single baited trap appears to be relatively small, so it is important to place them near the crop and to combine trapping with other sampling

methods such as limb-jarring of fruit trees or sweep-netting in orchard edges close to woodlots and/or riparian areas. Visual inspection of orchard edges for the presence of fruit injury, or for the insects themselves, is recommended, especially in Berrien, Kent and Genesee counties where several commercial apple and peach orchards reported suspected damage by brown marmorated stink bug last season and where nuisance reports have been high.

Damage to fruit from brown marmorated stink bug feeding can be confused with several disease or nutrient deficiencies, depending on the particular fruit that is affected, so it is important to involve your local [MSU Extension fruit educator](#) to help determine what caused the damage or send samples to [MSU Diagnostic Services](#).

Counties being monitored for brown marmorated stink bug in 2016 are: Allegan, Antrim, Benzie, Berrien, Genesee, Grand Traverse, Ingham, Ionia, Kent, Lapeer, Leelanau, Lenawee, Livingston, Macomb, Monroe, Oakland, Oceana, Ottawa and Van Buren. Traps are set up near apples, stone fruits (peach, plum, sweet and tart cherries), blueberries, grapes, strawberries, a variety of vegetable crops and at several urban locations considered to be hotspots.

For more information about management strategies in fruit should populations reach levels that would require control, please refer to MSU Extension Bulletin E0154, "[2016 Michigan Fruit Management Guide](#)." To learn more about how to monitor for brown marmorated stink bugs, distinguish it from other similar-looking stink bugs and what plants it favors, visit [MSU's Brown Marmorated Stink Bug website](#).



A map of Michigan's Lower Peninsula showing the extent to which brown marmorated stink bugs have become established as a nuisance pest (shaded from darkest to lightest, representing most to least nuisance reports) and the counties (highlighted in yellow) in which MSU Extension is monitoring for brown marmorated stink bugs in 2016. Reports come from those submitted by citizens to the [Midwest Invasive Species Information Network](#) since June 2016.

Fundraiser for Nate Wilson



**Dinner, Live Music, Silent and Live Auction
(Coffee, Water and Pop provided or BYOB)**

**Saturday, August 27, 2016
5:00 p.m. - 9:00 p.m.**

Gallagher Farm: 9300 Breithaupt Road, Traverse City, MI



Nate has been diagnosed with a rare degenerative eye condition called Keratoconus, and currently there is no known cure. However, surgery is an option that can delay/stop the progression. Nate is only 25, and without surgery, the disease will continue progressing. This surgery is not covered by insurance, and is going to be performed by the closest provider which is located in Indianapolis. *With your help,*

we can raise the needed funds for the surgery, follow up visits and related travel expenses.

An account has been opened at Chemical Bank. If you are unable to attend and would like to make a donation, please visit any Chemical Bank location and deposit to the account for Nathaniel A. Wilson.

Please come out and join us Saturday, August 27th, 2016.

If you are interested in being a sponsor for the fundraiser, please contact Cindy at 231-632-0251 or cnedd55@gmail.com.

GOLD Sponsor \$500 SILVER Sponsor \$250 BRONZE Sponsor \$100

Peach and Plum Variety Showcase

Date: August 23, 2016

Time: 4:00 p.m. - 7:00 p.m.

Location: SW Michigan Research & Extension Ctr, 1791 Hillandale Rd., Benton Harbor, MI 49022

Contact: MSU Extension Tree Fruit Specialist Bill Shane: (269) 208-1652 or shane@msu.edu

You are invited to see and taste the newest, traditional, and unusual peach and plum varieties and experimental selections.

This extensive stone fruit display will be assembled from samples contributed by commercial growers, nurseries, and university breeding programs across Michigan and elsewhere. Fruit on display will include yellow and white fleshed peaches and nectarines, donut, aprium, and plumcot types. Attendees will see new varieties and experimental selections from the Stellar, Flamin' Fury, Rutgers University, University of Wisconsin, Cornell University, and Michigan State University breeding programs. Breeders, commercial nursery, growers, and university researchers will share their experiences and recommendations with these new varieties.

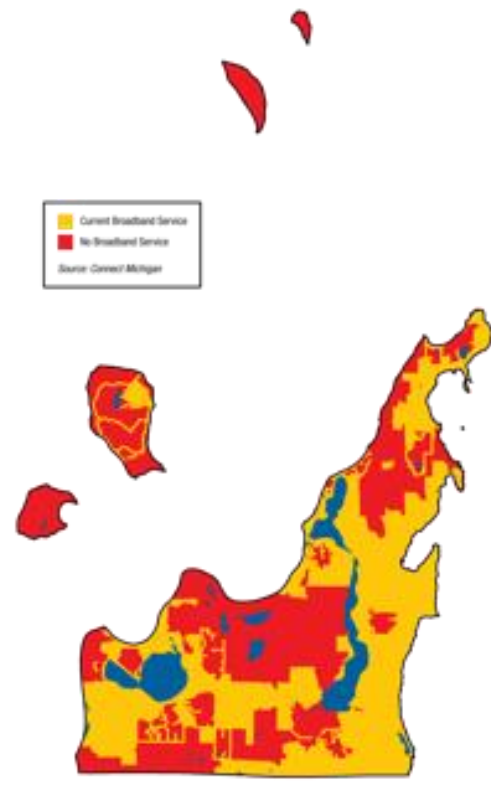
This showcase will take place in Berrien County at the SW Michigan Research & Extension Center, 1791 Hillandale Rd., Benton Harbor, MI 49022 from 4:00 PM to 7:00 PM. The schedule is: 4:00 PM Fruit variety displays open for viewing and tasting; 4:30 PM Fruit variety discussions; 6:00 PM Supper. There is no charge. Supper provided courtesy of International Plant Management and Summit Sales, Lawrence, MI.

You are welcome to bring samples of new, unusual, and experimental peaches and plums varieties to add to the display. The SW Research and Extension Center will be open for self-guided tours to see over 60 projects on fruit and vegetables including high tunnel production, grapes, hops, peach training systems, variety trials, and peach

breeding.

Directions to SWMREC: Travel on I-94 to Exit 30, which is Napier Avenue. Turn east on Napier Avenue and go 2 1/2 miles to Hillandale Road. Turn south (right) and travel to the entrance of SWMREC (about one-quarter on the east (left) side of Hillandale Road).

This showcase is organized by the Michigan Peach Sponsors, Summit Sales, International Plant Management, and Michigan State University Extension.



Leelanau Peninsula Economic Foundation Technology Committee Seeks Community Input!

High-speed Internet and broadband capabilities can no longer be considered a “luxury.” Indeed, Internet is considered a utility and a critical necessity for schools, families, libraries, business owners, and emergency services personnel.

The Leelanau Peninsula Economic Foundation (LPEF) Technology Committee has partnered with *Connect Michigan* to survey Leelanau County residents and stakeholders to identify needs and priorities. The survey will be helpful to efforts designed to identify areas lacking broadband access and for developing mechanisms to promote expansion of services via attracting additional providers.

Connect Michigan has worked with providers to identify Internet needs throughout Michigan. In the image below, the areas shaded in red represent un-served, or inadequately served Leelanau residents. Areas shaded in yellow, according to *Connect Michigan*, have at least some level of broadband availability. As depicted, significant portions of Leelanau County are without adequate service.

The Technology Committee's Chair, Commissioner Patricia Soutas-Little, says, "Broadband is vital for so many businesses and residents. Leelanau County has such a diverse landscape, knowing current accessibility and resident needs, will help us plan for the future."

The Committee is striving to have survey result tabulated in early September. Survey results will be used to develop action plans and work with potential providers to address gaps and improved service goals. The Survey is open until September 3 and only takes ten minutes to complete. You can take the survey as a resident, business owner, or as a designated representative of another organization. The survey is available online at <http://www.connectmycommunity.org/leelanau-peninsula/> or a paper copy can be obtained from any library or by calling the Leelanau Peninsula Chamber of Commerce at (231) 994-2202. For additional information about this effort, contact Patricia Soutas-Little at (231) 218-8496.

MSU Extension programs and material 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. Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities.

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

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

Information on grapes:
<http://grapes.msu.edu>

Fruit CAT Alert Reports:
<http://news.msue.msu.edu>