Northern Michigan FruitNet 2016
Northwest Michigan Horticultural Research Center

Weekly Update

FruitNet Report – July 19, 2016

CALENDAR OF EVENTS

7/21	**Over the Row Harvest at the NW Station** NW Station, 10:30AM
8/25	**NWMHRC Open House**

What's New?

- **Northwest Michigan Fruit Regional Report – July 19, 2016**
- **SWD Trap Update – July 19, 2016**
- **Noninsured Crop Disaster Assistance Program decision tool and instructional video**
- **Michigan spotted wing Drosophila report for July 15, 2016**

Northwest Michigan Fruit Regional Report – July 19, 2016

Growers have been challenged with an overlap of sweet and tart cherry harvest this season.

Emily Pochubay and Nikki Rothwell

2016 Growth Stages as of 7/18/16

Bartlett Pear – 35 mm fruit

Potomac Pear – 40 mm fruit

Mac –40 mm fruit

Gala – 44 mm fruit

Red Delicious – 52 mm fruit

HoneyCrisp – 50 mm fruit

Montmorency – 21 mm fruit

Balaton – 23 mm fruit

Hedlfingen – Harvested

Gold – Harvested

Napolean – Harvested 7/11/16

Riesling – Berry touch

Weather and Crop Report

The summer weather continues throughout the region. Mid-week last week was hot, and daytime temperatures soared into the 90s. Thankfully, those temperatures only last two days, and the remainder of the week and into the weekend was seasonable; temperature averages were in mid-60s and low 70s. Temperatures are predicted to rise again this week, and we will likely see daytime highs in the 90s on Thursday and Friday (21 and 22 July). Hopefully, the temperatures will cool again as we are in the midst of cherry harvest. Most of the region received some rainfall on Sunday 17 July. The region is dry and we could use the rain, but rain is not welcome until we have the sweet cherries off of the trees as there is concern with cracking. The NWMHRC received 0.34" of rain on Sunday.

As mentioned above, we are in the throes of cherry harvest across the region. Sweet and tart cherry harvest is overlapping, and many growers are bouncing between sweet and tart cherry harvest. Growers have commented that sweet cherries are not coming off the trees easily. In these cases, growers have moved on to tart cherry harvest and will come back to sweet cherries at a later timing. Despite the rain that moved through the region over the weekend, we have seen little cracking in sweet cherries. Rain will help size the tart cherry crop as tart cherries are quite small with a big crop and little rainfall this season. Fruit quality in most blocks is good, even in areas that received hail on 8 July. However, we have seen some internal bruising in sweet cherries as a result of the hail and wind whip marks on tarts. Additionally, some tart cherry blocks will not be harvested due to the hail damage.

Pest Report

Spotted wing drosophila (SWD) numbers are on the rise throughout the region. Last week, some traps were catching flies in the triple digits in the Northport-Omena area and Centerville Township. Most growers are in the midst of cherry harvest and

managing harvest while trying to also maintain SWD coverage in blocks that have yet to be harvested will be challenging. In particular, growers will need to determine a spray strategy that begins 7-10 D before harvest in order to keep fruit protected and also meet PHIs. This strategy can be complex, particularly when deciding whether or not a 3D material is needed and which 3D material should be used. Exirel, Danitol, and Pounce are materials with a 3D PHI with differing levels of SWD efficacy. Some growers have used Exirel at a 13.5 fl oz per acre rate for SWD this season rather than at the 16 fl oz per acre rate that is suggested in the 2016 Fruit Management Guide. We have found excellent efficacy for SWD using Exirel at 16 fl oz per acre in trials at the Northwest Michigan Horticultural Research Center (NWMHRC) and Trevor Nichols Research Center. However, we have also found that 13.5 fl oz is adequate if growers are sure to harvest after the 3D PHI is met. We caution growers that if they have to stretch this interval due to unforeseen circumstances, we recommend the 16fl oz rate as Exeril at the lower rate broke down much faster than the higher rates. Danitol has also shown excellent results for SWD in efficacy trials. Additionally, NWMHRC research has shown that the miticide component of Danitol is effective for minimizing two spotted spider mite outbreaks after harvest. Pounce and other pyrethroid products containing the active ingredient permethrin have provided variable results for SWD in research trials. Permethrin insecticides likely breakdown quicker in the orchard and therefore lose effectiveness for SWD faster than some of the other pyrethoid options. Furthermore, permethrin could contribute to pest mite flaring. Some growers have managed for SWD post harvest or are planning to do so to maintain low populations and low pest pressure for neighboring blocks that have yet to be harvested.

Cherry fruit flies are active at the station at this time; we found a total of two CFF on traps this week. CFF activity began a few weeks ago in the region, and most growers have used materials for SWD that would have also been effective for CFF.

Obliquebanded leafroller (OBLR) trap numbers continue to be low in the NWMHRC's cherries with an average of three moths per trap. We have not observed larvae at the station, but there has been at least one report of very small OBLR larvae in a cherry block. Most of the OBLR larvae that have been reported have been in apple orchards; we found a total of two OBLR moths in a trap in an apple block at the NWMHRC.

Borer activity is ongoing. We found an average of eight American plum borer (APB) moths per trap; this is the second APB flight of the season. Lesser peachtree borer numbers are on the downswing with 12 moths per trap. There was an average of three greater peachtree borers per trap.

For growers that have yet to harvest, American brown rot (ABR) and cherry leaf spot are the target diseases at this time, but most growers are focused on harvest at this time. Fortunately, we have received very few reports of ABR development in damaged cherries and also few reports of cracking following recent rain.

If orchards that were impacted by severe storms a week and a half ago experienced trauma blight, symptoms should be apparent at this time; trauma blight symptoms could have appeared as early as late last week.

Wine Grapes
Duke Elsner, MSU Extension

Grand Traverse area vineyards continue to look very good, except for those sites which were heavily damaged by the hail event on July 8. Based on reports and observations, the hardest hit vineyards are in Leland Township of Leelanau County. Hybrid varieties received the greatest injury to fruit clusters due to the high cordon training systems commonly used for these varieties. Fruit clusters of *vinifera* varieties were more sheltered from direct hits by hail because the fruit is positioned lower in the trellis and under the canopy of shoots.

Japanese beetle adults have appeared during the last week. I have also seen a few potato leafhoppers in some vineyards.

Saskatoons
Duke Elsner, MSU Extension

Harvest is essentially done in the Grand Traverse area.

SWD Trap Update – July 18, 2016

Catch Date	Location	Crop	Total No. of SWD
5/31	Centerville Twshp.	Tart Cherry	1
6/16	S. of Suttons Bay	Tart Cherry	1
6/17	Old Mission	Woodlot	2
6/20	M-72 W corridor	Tart Cherry	2
6/21	Old Mission	Sweet and Tarts	3
6/21	Elk Lake Rd.	Wild Raspberry	1
6/22	N. of Suttons Bay	Tart Cherry	1
6/22	Eastport	Wild Cherry	1

6/24	Northport-Omena	Tart Cherry	3
6/27	M-72 W corridor	Tart Cherry	7
6/27	Benzie	Tart Cherry	1
6/27	Benzie	Gooseberry	1
6/28	Elk Lake Rd.	Tart Cherry	1
6/28	Centerville Twshp.	Tart Cherry	1
6/28	Old Mission	Honeysuckle, Sweet Cherry, Tart Cherry	5
6/29	Elk Lake Rd.	Tart Cherry	2
6/29	Yuba		1
6/29	S. of Suttons Bay	Tart Cherry	2
6/29	Bingham	Mulberry, Raspberry	3
6/29	East Leland	Strawberry	2
6/29	Centerville Twshp.	Sweet Cherry	3
7/5	Northport-Omena	Tarts	6
7/5	East Leland	Sweets, Mulberry	7
7/5	Centerville Twshp.	Tarts	5
7/5	E. of Suttons Bay	Sweets	2
7/6	Manistee	Tarts	20
7/6	Benzie	Tarts, honeysuckle, sweets, raspberry, grape	27
7/6	M-72 W corridor	Tarts	6
7/6	Northport-Omena	Tarts	1
7/6	Old Mission	Tarts, honeysuckle, sweets, grapes	9
7/6	Elk Lake Rd	Tarts	2

7/6	Centerville Twshp	Sweets	2
7/6	S. of Suttons Bay	Sweets, tarts, raspberry, mulberry	10
7/6	East Leland	Strawberry	2
7/6	Kewadin	Tarts	1
7/6	S. of Elk Rapids	Tarts	1
7/7	M-72 corridor	Tarts	1
7/11	Manistee	Tarts, Sweets	7
7/11	Benzie	Tarts, Honeysuckle	9
7/11	S. of Suttons Bay	Sweets	1
7/11	Northport – Omena	Tarts	1
7/11	Old Mission	Tarts, Sweets, Honeysuckle	8
7/11	Elk Lake Rd.	Tarts, Raspberry	9
7/11	Yuba	Tarts	1
7/13	Manistee	Tarts, sweets	10
7/13	Benzie	Tarts, Sweets	34
7/13	NWMHRC	Tarts	4
7/13	S. of Suttons Bay	Sweets, tarts, raspberry	8
7/13	Centerville Twshp	Sweets, Tarts	16
7/13	N. of Suttons Bay	Tarts, Sweets	4
7/13	Bingham	Grapes	1
7/13	***Abandoned block in Centerville	Tarts	76
7/14	Stoney Point	Tarts	45
7/14	Williamsburg	Tarts	5
7/14	Centerville Twshp	Tarts	155

7/14	S. of Suttons Bay	Tarts	33
7/14	Leland	Tarts	2
7/14	Northport – Omena	Tarts	431
7/14	Old Mission	Tarts	3
7/15	NWMHRC	Tarts	5
7/18	NWMHRC	Tarts	8
7/19	Benzie	Tarts, raspberry, honeysuckle, mulberry, gooseberry	376
7/19	Manistee	Tarts, sweets	103
7/19	M-72 Corridor	Tarts	15
7/19	Elk Lake Rd.	Tarts, raspberry	64
7/19	Yuba	Sweets	1
7/19	Old Mission	Tarts, Honeysuckle, sweets	38
7/19	S. Elk Rapids	Raspberry	1

___ = New catches

Total catches per region:

Centerville Twshp. - 183
S. of Suttons Bay - 56
Old Mission - 68
M-72 W corridor - 31
Elk Lake Rd. – 79
N. of Suttons Bay – 5
Eastport - 1
Northport-Omena - 442
Benzie – 448
Yuba – 3
Bingham – 3
East Leland – 11
E. of Suttons Bay – 1

Manistee – 140
S. of Elk Rapids – 2
NWMHRC – 17
Bingham – 1
***Abandoned block in Centerville – 76
Stoney Point – 45
Williamsburg – 5
Leland – 2

Over the Row Harvest at the NW Station

On Thursday, July 21 we will be harvesting tart cherries planted in a High Density block research trial at the Northwest Michigan Horticulture Research Center, near Traverse City. The plot was established in 2011 with the support of the GREEEN project and the Michigan Cherry Producers. The planting has 6 varieties of sour cherry planted 5 X 13 feet. We are experimenting with treatments to maintain trees in a compact canopy to accommodate an over the row harvester used normally to harvest berry crops. This work began in 2008 with the support of the Michigan Cherry Producers to determine the feasibility of this approach to growing and producing sour cherries. The traditional approach maintains trees at greater distances (15-20 feet apart) using trunk shakers and catch frame machinery. We are inviting members of the northern tart cherry industry and affiliates to view harvesting at the Northwest Michigan Horticulture Research Center (6686 S CENTER HWY) starting at 10:30 AM on Thursday, July 21st.

With the support of the Michigan Tree Fruit Commission, Michigan State Hort Society and the International Fruit Tree Association, we will be harvesting the research plot on July 21 using a Littau ORXL (2013 model) berry harvester (www.littauharvester.com/products.php). Previous work with the Twin-Tower Rotating-Tine harvester mechanism has been found to be efficient and effective in fruit removal of cherries.

Dr. Ron Perry, Professor of Horticulture, MSU, Project PI
Dr. Nikki Rothwell, NWHRC Director and Extension Educator, MSU, team cooperator

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Noninsured Crop Disaster Assistance Program decision tool and instructional video

The development of risk management plans for farms should include consideration of crop insurance or NAP buy-up coverage.

Posted by **Adam Kantrovich**, Michigan State University Extension, MSUE News

Agricultural producers are bombarded with challenges when raising a crop. Risk comes from many areas, including labor market, market price volatility, geo-political issues and regulations. With revenue shortfalls from reduced yields, a farm may not have the income necessary to purchase inputs for the coming-year crop. Farmers need to use a number of risk management strategies that allow themselves to “hedge” for various scenarios that can lead to reduced or eliminated crop revenue.

For many farms, crop insurance is an option for the crops they raise. Crop yield and revenue insurance is administered through the Risk Management Agency (RMA) of the USDA and can be purchased through private crop insurance agents. This insurance provides most grain, oilseed and tree fruit farms with a variety of insurance contract options to protect against yield or revenue loss risks. Farms typically pay a premium that has been subsidized for participation in these types of programs. Although crop insurance increases per acre costs, it can provide additional revenue when needed due to losses incurred through weather and other events.

Unfortunately there are many for which crop insurance is not available. The Noninsured Crop Disaster Assistance Program (NAP) that is administered through the Farm Services Agency (FSA) of the USDA is available for crops not covered by crop insurance. A producer must sign-up through their local FSA office for NAP.

The NAP program provides loss risk protection for crops that are not insurable through commercial crop insurance or for crops that are in a "pilot" status, such as the Cherry Revenue insurance program. NAP may also be available if crop insurance does exist for a crop, but coverage is not available for your crop type or intended use such as fresh market versus processed market.

The 2014 Farm Bill made substantial changes to the NAP program. Previously, the program was almost a pure catastrophe with maximum coverage at 50 percent of a farms approved historical yield. Shortfalls were paid at only 55 percent of the NAP market price. Now NAP coverage can be purchased up to 65 percent of a farms approved historical yield with shortfalls being paid at 100 percent of the NAP market price. The NAP program has a maximum payment of $125,000 and the premium is also capped at 5.25 percent of the yield guarantee valued at the NAP market price. Each crop does have a $250 administrative fee in addition to the premium cost which means, between the capped premium cost and administrative fee, the most a producer will have to pay would be $7,062. However, if you are a beginning farmer, a socially disadvantaged farmer or limited resource farmer, a producer may qualify to have the premium reduced by up to 50 percent and the administrative fee waived.

Michigan State University Extension, through collaboration with University of Illinois and FSA, developed a NAP Crop Eligibility, Premium, and Payment Estimator that producers can use to help determine if a farms crop(s) are eligible for the NAP program, what the premium would be, and an estimate of payments with a disaster. Adam Kantrovich of the MSU Extension Farm Information Resource Management (FIRM) team and Eric Fischer of the Michigan USDA-FSA developed a short instructional video on how to use the NAP Crop Eligibility, Premium, and Payment Estimator. These links and other relevant information can be found on the FIRM team Crop Insurance webpage, or the FIRM Team NAP Buy-Up Farm Bill webpage.

MSU Extension reminds you to always contact your trusted legal and tax advisors.

For further information, please contact akantrov@msu.edu or view the MSU Extension FIRM webpage or the FIRM team staff webpage to find your closest farm financial educator.

Michigan spotted wing Drosophila report for July 15, 2016

Numbers continue to climb throughout the monitoring network; susceptible crops need to be protected.

Posted on 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. Out of the 112 traps collected during the week prior to July 14, 214 females and 169 males for a total of 383 SWD flies were captured from 53 traps, or 47 percent of the traps being monitored. That is a 30 percent increase over last week.

As of this week, SWD adults have been captured in traps baited with commercial lures in strawberry (Berrien, Livingston, Macomb, Ottawa counties), blueberry (Allegan, Berrien, Ottawa and Van Buren counties), raspberry (Allegan, Berrien, Ingham, Kalamazoo, Macomb, Ottawa, Van Buren counties), grape (Benzie, Berrien, Grand Traverse, Leelanau, Van Buren counties), cherry (Allegan, Antrim, Benzie, Berrien, Grand Traverse, Leelanau, Lenawee, Kent, Macomb, Manistee, Monroe, Oceana, Van Buren counties), and peach (Berrien and Kent counties) blocks.

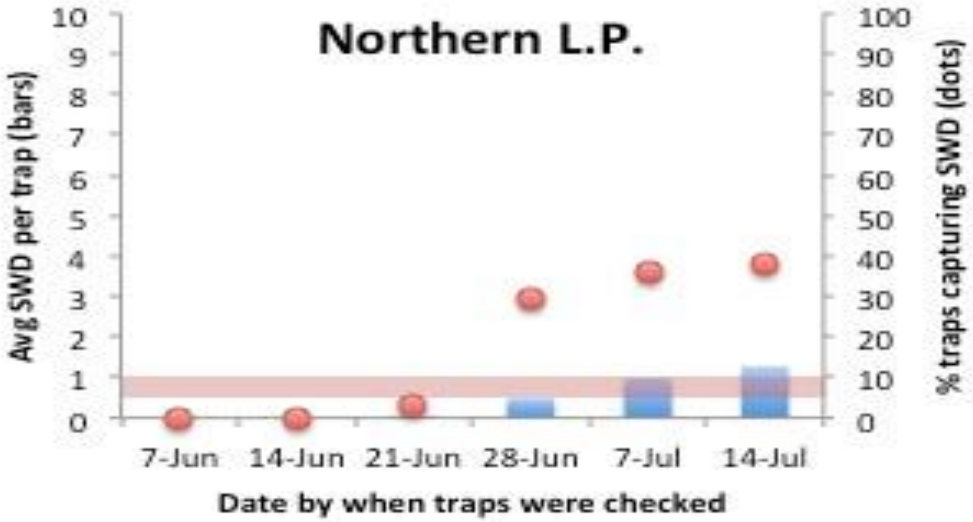
Table 1. The regions that are being monitored for SWD in 2016, how each region is defined (by the counties listed), the number of sites in each region, and the cumulative total of SWD flies caught in traps by region.

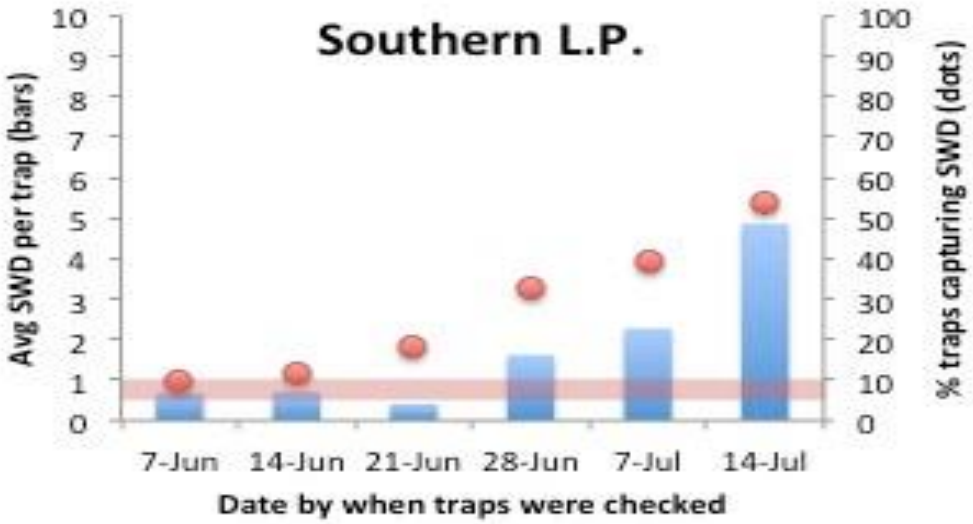
Region	Counties covered in the SWD monitoring network	No. sites*	Cumulative SWD Total	Avg SWD flies per trap**
SE	Genesee, Ingham, Lenawee, Livingston, Macomb, Monroe, Oakland	18	38	0.9
SW	Allegan, Berrien, Kalamazoo, Ottawa, Van Buren	79	704	7.5
Ridge	Ionia, Kent, Muskegon	14	119	2.5
WC	Mecosta, Oceana	9	17	0.2
NW	Antrim, Benzie, Grand Traverse, Leelanau, Manistee	60	137	1.3
	Grand Total:	**180**	**1,015**	**3.4**

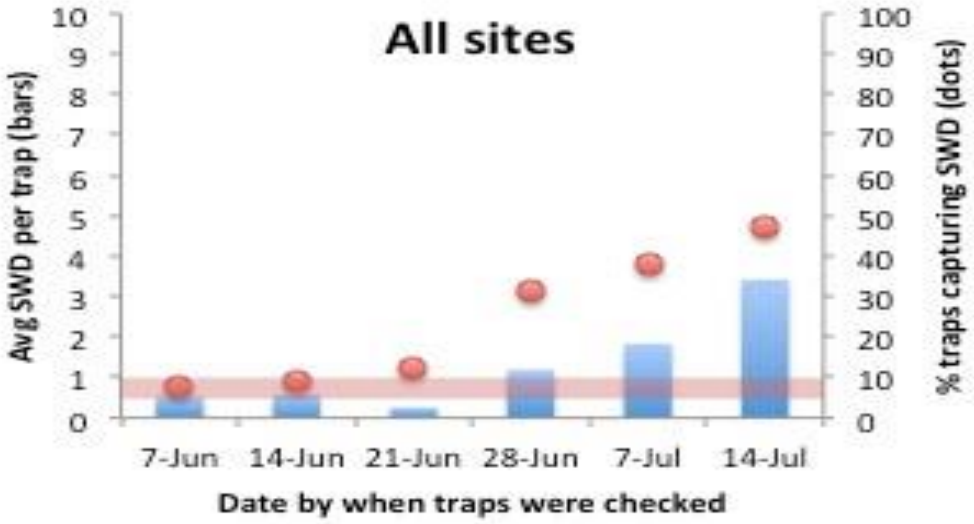
* Note: not all sites are monitored each week.

** Average is for the week ending July 14, 2016

Average trap catch over the entire network is now over 4 SWD flies per trap in the southern part of the Lower Peninsula and 1 SWD fly per trap in the northwest counties. Traps catching the most flies came from the southwest region, which had an average of more than 7 SWD flies per trap. Some southwest Michigan sites reported more than 30 SWD flies per trap. Ripening fruit throughout the state are likely to be at risk for infestation if not protected.


Northern L.P.
Avg SWD per trap (bars)
% traps capturing SWD (dots)
0
1
2
3
4
5
6
7
8
9
10
0
10
20
30
40
50
60
70
80
90
100
7-Jun
14-Jun
21-Jun
28-Jun
7-Jul
14-Jul
Date by when traps were checked


Southern L.P.
Avg SWD per trap (bars)
% traps capturing SWD (dots)
0
1
2
3
4
5
6
7
8
9
10
0
10
20
30
40
50
60
70
80
90
100
7-Jun
14-Jun
21-Jun
28-Jun
7-Jul
14-Jul
Date by when traps were checked



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 Lower Peninsula (LP) encompasses all network traps in counties north of and including Clare in the Lower Peninsula (n = 45 traps this week). Southern LP encompasses all network traps in counties south of Clare in the Lower Peninsula (n = 67 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 include strawberry, blueberry, raspberry, grape, tart and sweet cherry, peach and plum. Commercial plantings include 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.

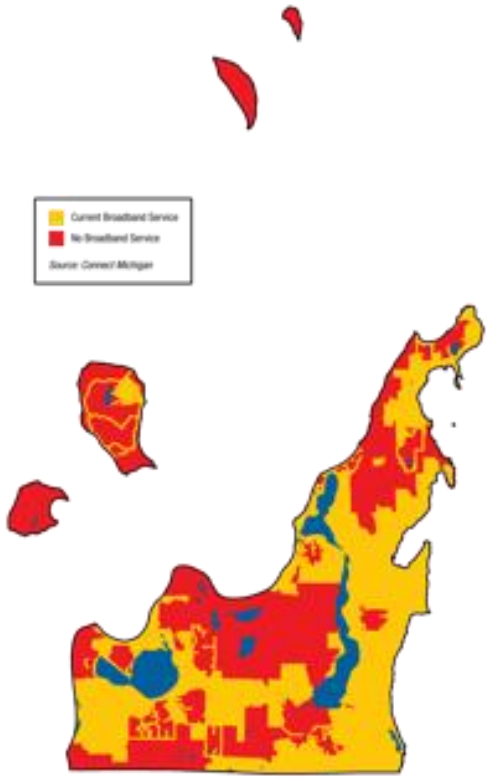


Figure 1. Leelanau County broadband availability, 2/2016

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 his effort, contact Patricia Soutas-Little at (231) 218-8496.

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