Northern Michigan FruitNet 2018 Northwest Michigan Horticultural Research Center

Weekly Update

FruitNet Report – August 21, 2018

CALENDAR OF EVENTS

8/23 NWMHRC Open House

Please RSVP for dinner by August 21, to Jenn at 231-946-1510 or

goodr100@msu.edu

8/24 "Forty Years Advancing Fruit

Production: Applied Physiology, PGRs, Rootstocks, and Orchard

Systems" – Symposium

More info below

What's new?

- Northwest Michigan Fruit Report August 21, 2018
- Northwest Michigan Horticultural Research Center Annual Open House Tentative Agenda
- International Symposium on New Cultivars for Disease Resistance and Increased Sustainability – Viticulture Meeting

Northwest Michigan Fruit Report – August 21, 2018

Weather Report

The weather in the northwest continues to be hot and dry.

temperatures are lingering in the 80s and overnight temperatures are in the mid-50s to low 60s. There has also been significant cloud cover for the past few days. We have accumulated 2672GDD base 42 and 1782GDD base 50. There has been very little rainfall in the month of August. We did receive 0.4" of rain here at the NWMHRC on 6 August but no other Enviroweather stations in the region received that amount of rain. Conditions are extremely dry and trees without irrigation are showing drought stress. There is some potential rain in the forecast today (21 August), and some rain was falling this morning in Manistee and southern Leelanau County. MSU's climatologist Dr. J. Andresen's forecasted that the remainder of the week would be slightly cooler but then heat up again over the weekend. There is little rain in the forecast.

Crop Report

Tart cherry harvest is over in northwest Michigan. The last raw product report from the CIAB had NW MI at 108.4 million pounds with 2.5 million diverted pounds. Our estimate for the region was 150 million pounds; we will likely pick out much shorter than this estimate. Although the crop was shorter, the quality was excellent even with the sustained heat this summer.

Apples are coloring, but not as much as we would like as a result of the warm temperatures. Apple size may be an issue, particularly in blocks with no irrigation. Apricot and peach harvest is underway and some peach blocks without irrigation did not size well this season. Fruit quality remains good across the board. Tart and sweet cherry trees are showing drought stress. There is a lot of yellowing leaves, particularly on younger trees. We are also seeing firing in tart cherries. There is a high mite population across the state, and the mites are likely contributing to the firing in conjunction with the heat and drought.

Pest Report

Although the forecast suggests that we could receive some rainfall in the coming week, the long range forecast for the end of August and early September is calling for mostly dry and warmer than normal temperatures according to Dr. Andresen. These conditions will continue to favor mite and scale development as these pests thrive in warm and dry seasons.

Most tree fruits in our area have had high mite (i.e. two spotted spider mites and European red mites) populations this season. Bronzing and leaf loss are noticeable, and as mentioned previously firing of branches and larger limbs are evident in tart cherries. Many growers have applied at least one application of a miticide this season with varying results; some blocks may need another application if the mite populations rebound. Due to high pest mite populations, we have also observed many predatory mites. High infestations of mites in conjunction with ongoing powdery mildew infections could pose challenges with premature leaf loss and early defoliation of trees will reduce their winter hardiness.

San Jose scale flight is ongoing and numbers have continued to be high; this trend is consistent with other regions of the state. Crawlers began emerging within the last week, and some of the crawlers that emerged first have settled on new feeding sites. Anecdotally, we have observed that crawler activity seems to be a few days ahead in apples compared to activity in sweet cherry.

We did not detect apple maggot at the station and we received reports of lower catches in the region this week. If growers/scouts are using non-baited red spheres or ammonium baited yellow sticky boards, the threshold for treatment is one fly as these traps are less attractive to apple maggot compared with a volatile baited red sphere. Additionally, after reaching this threshold, applications should be made within a week to 10 days. Because volatile baited red spheres are more efficient for trapping this pest, the threshold is higher – four to six flies per trap. As fruit begin turning color, yellow apple maggot traps are less attractive than ripening fruit. Hence, the red sphere traps can provide a better assessment of apple maggot activity in blocks with ripening fruit. Apple maggot activity is ongoing in more southerly regions of the state at this time. With rain in the forecast, it is possible that we could see a flush of apple maggot activity.

Second generation codling moth flight is ongoing, albeit the numbers in our traps at the station seem to be on the decline. Based on degree-day accumulations, we are past peak emergence at this time and egg-laying is ongoing.

We have found very few brown marmorated stink bug in traps placed adjacent to commercial orchard blocks thus far this season. However, we have had consistent catches of adults and nymphs in our residential trapping site in southern Leelanau County. We have received several reports of native stink bug activity in orchards, and we have observed stink bug feeding damage. While some native stink bugs are predators (ex. spined soldier bug), others like the green stink bug and *Euschistus spp.* feed on a broad range of hosts including fruit crops.

August 23, 2018

1:00 Grounds open for equipment viewing

Concurrent Grape Session

1:00 – 2:30 "Pre-Harvest Considerations"

The Pre-Harvest Considerations meeting will be held at the NWMHRC Research Vineyard with the goal to present current projects, recent research on insects and canopy management as it relates to fruit quality, and field pre-harvest questions from the industry.

Thomas Todaro, MSU Extension, Dr. Paolo Sabbatini, Department Horticulture, MSU, and visiting viticulture professor Dr. Enrico Peterlunger, University of Udine, Italy

Concurrent Cherry Session

1:00	Welcome to the 2018 NWMHRC Open House
1:05 – 1:10	Blosi platform demonstration in high-density apples NWMHRC Staff
1:10 – 1:25	Results from 2018 streptomycin resistance screening for fire blight Suzanne Slack, Department of Plant, Soil, and Microbial Sciences, MSU
1:30 – 1:45	Spotted wing drosophila research update Dr. Nikki Rothwell, MSU Extension and AgBioResearch Emily Pochubay, MSU Extension
1:50 – 2:05	Using drones as a bird scare tactic Dr. Catherine Lindell, Department of Integrative Biology
2:10 – 2:25	A review of SDHI fungicide resistance screening for cherry leaf spot Cory Outwater, Department of Plant, Soil, and Microbial Sciences, MSU

Equipment Show and Demonstrations

2:30 – 2:15 **Superior Wind Machine**

Wind Machine, 6919 Kraft Avenue SE, Caledonia, MI 49316

Phone: (616) 971-8177

2:20 – 2:35	Gillison's Variety Fabrication Inc. Fertilizer Spreader, Gillison's Variety Fabrication, 3033 Benzie Hwy., Benzonia, MI 49616 Phone: 231-882-5921 or 800-392-6059
2:40 – 2:55	Gillison's Variety Fabrication, Inc. Sprayer, Gillison's Variety Fabrication, 3033 Benzie Hwy., Benzonia,
MI 49616	Phone: 231-882-5921 or 800-392-6059
3:00 – 3:15	Gillison's Variety Fabrication, Inc. Hedger, Gillison's Variety Fabrication, 3033 Benzie Hwy., Benzonia,
MI 49616	Phone: 231-882-5921 or 800-392-6059
3:20 – 3:35	Provide Agro Corporation Sprayer, 4825 Union Road, Beamsville, Ontario, Canada LOR 1B4 Phone: 519.325.8774
3:40 – 5:00	Tentative demos and time to meet with vendors
Evening Events	
5:00 - 5:30	TENTATIVE: Addressing international trade issues that are impacting the US Agriculture sector Veronica Night, Economist, American Farm Bureau Federation
5:45 – 6:30	Social Hour and visit with vendors
6:30	Dinner

2018 Vendors

Ina Store
Koppert Biological
Nevill Supply
Superior Wind Machine
Bader and Sons
Louis Gelder and Sons
Gillison's Variety Fabrication Inc.

Timac Agro, USA
Thomas Brothers
Provide Agro Corporation
Herman's Mobile Service
Truly Michigan Vines

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, 2018. 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.

International Symposium on New Cultivars for Disease Resistance and Increased Sustainability – Viticulture Meeting

August 29th, 2018. Community Meeting Room, Leelanau County Government Center 8527 E Government Center, Suttons Bay MI 49682

Please register here by August 24, 2018: https://events.anr.msu.edu/grapesymposium/

Growing healthy grapes for producing quality requires a lot of spraying in the vineyards, and the use of large quantities of pesticides, fungicides, herbicides, etc. Much effort has been done by the industry developing more environmentally- friendly practices for sustainable viticulture. One of the most recent development in this field, is the use of new disease-resistant grape varieties; vines selected to resist to fungi and to produce quality wines. Across Europe, pioneering wine producers are leading the way and testing these new breeds of super-grape vines and producing wine from them. Some of those varieties and their performance are the focus of this symposium.

Program:

9.30 AM Introduction of the workshop

Thomas Todaro, MSU Extension Viticulture Educator

9.45 AM Challenges of Sustainable Viticulture in the Great Lake Region

Dr. Paolo Sabbatini, Associate Professor, Michigan State University

10.30 AM	Knocking on cell's door: molecular cascades triggered by powdery mildew-grapevine Interaction. Dr Clizia Villano, Assistant Professor, University of Naples (Italy)
11.30 AM	Clean Plant Material program at Novavine Jay Jensen and Jeff Wheeler, Novavine grapevine nursery, California
Noon	Lunch break
1.30 PM	Vivai Cooperativi Rauscedo (VCR) Breeding Program and Resistant Cultivars Dr. Asia Khafizova breeding project manager, Vivai Cooperativi Rauscedo (VCR)
2.30 PM	Viticultural performance of new disease resistance cultivars Dr. Enrico Peterlunger, Professor of Viticulture, University of Udine (Italy)
3.30 PM	Wine tasting of new disease resitant cultivars Dr. Asia Khafizova breeding project manager, Vivai Cooperativi Rauscedo (VCR)
4.30 PM	Roundtable discussion

The symposium is sponsored by Novavine grapevine nursery (California) and there is no registration fee. Lunch will be provided to all the participants. For more information please contact Thomas Todaro (todaroth@anr.msu.edu) or Paolo Sabbatini (sabbatin@msu.edu)

Articles featured in past FruitNet Reports

Forestry Field Day

Saturday, September 8, 2018

9:00 am to 12:00 pm

Palmer Woods Forest Reserve

3 miles south of M-22 on Wheeler Road Leelanau County

721 Acres – Leelanau Conservancy's Largest Natural Area!

This majestic forest reserve offers miles of hiking, cross-country skiing or snowshoeing through rolling hills and traditional northern hardwood forest. The trail system here is a work in progress, with mountain biking trails cur- rently being constructed. The Forest Reserve's contiguous hardwood forest stretches over 2 miles north to south and has been managed for high quality timber for over 45 years. Consulting Foresters Richard Cooper and Paul Gerhart have helped guide management of this property for decades years of experience which we can all learn from.

Join area forest landowners to learn about:

- How multiple use management works on the ground
- Sustainable forest management practices
- Forest insect and disease control treatments
- Impact of deer browse in the forest and management strategies
- Planting to increase diversity within a woodlot

Presenters include:

Richard Cooper and Paul Gerhart, Foresters, Cooper-Gerhart Consulting Forestry and Gerhart's Tree Service
Liana Nicole May, Ecologist, Borealis Consulting
Leelanau Conservancy Docents; Ann McInnis, Beth Chiles, and Peter Wolcott
Kama Ross, Forestry Assistance Program District Forester

Cost is \$5.00/person

Register by contacting Kama Ross by September 6, 2018 at 231 -256-9783 or kama.ross@macd.org

Forest Mushrooms of Northern Michigan

Tuesday, September 11, 2018, 6:30-8:30 pm Community Room of the Leelanau County Building 8527 E. Government Center Drive, Suttons Bay

Presentation by Linda Scribner from Manistee, Certified Wild Mushroom Expert, licensed to commercially harvest and sell wild mushrooms in Michigan. Linda brings 150 fresh & dried fungi specimens, sharing mushroom biology and the key features to look for when identifying different species. Linda's presen- tation includes the identification of the 20 species of mushrooms that the State of Michigan has deemed safe to eat in its Food Safety Program. Whether you are interested in mushrooms for the table, or want to identify something you saw in the woods, please join us to learn more about the fascinating, but often misunderstood, world of fungi!

Sponsored by the Forestry Assistance Program of Leelanau, Benzie and Grand Traverse Conservation Districts. Cost is \$10/person. Register by contacting Karen Long klong@leelanaucd.org or 231-256-9783

Predicted 2018 Apple Harvest Dates

Philip Schwallier, District Horticulture Educator Amy Irish-Brown, District ICM Educator Clarksville Research Center

The predicted harvest dates for every MAWN weather station is now available on Enviroweather web site at Michigan State University. This spring was colder then average which delayed the development of spring foliage. Then warmer weather arrived and bloom developed 7 behind normal in the south to 2 days behind normal in the north part of the state. Record hot temperatures followed thus advancing harvest dates to predict near normal dates for 2018 for the state. In general, 2018 Predicted Harvest Dates are roughly normal in the south and a few days early in the north. Bloom dates this spring were late across the state.

As always, the weather seems to be unusual each year and 2018 was no different. It began with what appeared to be another very late spring. Most areas bloomed late except northern areas of the state. During April very cold weather moved in several times leaving low areas and sensitive varieties with minor frost damage. In general, apple blocks have a mix of cropload, some light areas but mostly moderate to heavy cropload. Blocks with light croploads will mature 3 or 4 days sooner then the predicted harvest dates. Heavy croploads will mature 7 days later than the predicted dates. If hot stressful weather occurs in August or September, apple maturity will be advanced. The 2018 predicted harvest dates are listed in Table 1. This year 2018, we are a few days behind last year. Table 2 lists this year's predictions compared to normal and last year.

The normal harvest dates for other varieties are listed in Table 3 for the Grand Rapids area. This year's 2018 predicted dates for other non-modeled varieties 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). Harvista can be applied 3 to 7 DBH. Use Table 3, 2018 Predicted Harvest Dates for Other Varieties, to time ReTain applications and adjust for varieties and locations.

Table 1. 2018 predicted peak harvest dates.

Full bloom data 2010	Duadiated harvest data 2010
Full bloom date 2018	Predicted harvest date 2018

Station	McIntosh	Jons	Reds	McIntosh	Jons	Reds	Observer
SWMREC	11-May	13-May	14-May	8-Sep	24-Sep	1-Oct	Shane
Deerfield	8-May	9-May	10-May	5-Sep	22-Sep	29-Sep	Tritten
Romeo	13-May	14-May	15-May	10-Sep	25-Sep	30-Sep	Tritten
Peach Ridge	16-May	17-May	17-May	14-Sep	26-Sep	2-Oct	Irish-
Hart	21-May	22-May	23-May	19-Sep	30-Sep	7-Oct	Irish-
NWMHRS	22-May	23-May	23-May	20-Sep	2-Oct	8-Oct	Rothwell

Table 2. 2018 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	-1	-3	-3	-11	-9	-9	
Deerfield	3	-1	3	-7	-4	-4	
Romeo	3	0	3	-8	0	1	
Peach Ridge	1	0	3	-9	1	2	
Hart	-1	3	7	-6	0	-1	
NWMHRS	2	4	9	-1	6	6	

Table 3. Normal and 2018 peak harvest dates for varieties for the Grand Rapids area

Variety	Normal date	2018 predicted date
Paulared	8/24	8/24
Gingergold	8/26	8/26
Gala	9/10	9/10
McIntosh	9/15	9/14
Honeycrisp	9/18	9/18
Empire	9/24	9/24
Jonathan	9/26	9/26
Jonagold	9/26	9/26
Golden Delicious	10/2	9/28
Red Delicious	10/5	10/2
Idared	10/10	10/9
Rome	10/15	10/14
Fuji	10/25	10/25
Braeburn	10/25	10/25
Goldrush	11/1	11/1

"Forty Years Advancing Fruit Production: Applied Physiology, PGRs, Rootstocks, and Orchard Systems" – Symposium

24 August 2018, Hagerty Conference Center, Traverse City, Michigan

This day-long symposium and post-symposium dinner has been organized to **highlight current advances in fruit research** and recognize the statewide, regional, national, and international impacts of the 40+ year careers of Michigan State University professors of fruit science, **Jim Flore** and **Ron Perry**. Many of the anticipated speakers at the symposium studied with Drs. Flore and/or Perry at MSU and have become **leaders around the world in fruit research, teaching, extension, and industry. sium Schedule (subject to change)**

8:15-8:20 Welcome and Introduction

8:20-8:50 **Jim Flore**, *Career Reflections* (30 min)

8:50-9:15 **Riccardo Gucci**, University of Pisa, Italy (25 min) *From Tree Physiology to Fruit Quality: the Role of Carbon and Water in Orchards*

9:15-9:35 **Marlene Ayala**, Pontificia Universidad Catolica, Chile (20 min) *Practical Applications of Source-Sink Relationships in Sweet Cherry*

9:35-9:55 **Paolo Sabbatini**, Michigan State University (20 min) *Changes in Within-Vine Carbon Partitioning Subjected to Early Basal Leaf Removal*

- 9:55-10:20 **Moreno Toselli**, University of Bologna, Italy (25 min) *Organic Fertilization Affects Carbon and Nutrient Balance in the Orchard Ecosystem*
- 10:20-10:45 Coffee break
- 10:45-11:05 **Lailiang Cheng**, Cornell University (20 min) *Photosynthesis and Flower Development in Relation to Sorbitol in Apple*
- 11:05-11:25 **Dario Stefanelli**, Agriculture Victoria, Australia (20 min) *Apple Biennial Bearing, the Importance and Effects of Crop Load*
- 11:25-11:50 **Roberto Zoppolo**, INIA, Uruguay (25 min) *Vineyard Water Management in a Temperate Humid Climate*
- 11:50-12:15 **Alan Lakso**, Cornell University (25 min) *Fruit Crop Physiology to Support Grower Practices*
- 12:15-1:30 Lunch
- 1:30-2:00 Ron Perry (30 min) Career Reflections (30 min)
- 2:00-2:25 **Tom Beckman**, USDA-ARS, Byron (25 min) *Rootstock Breeding to Improve Disease Resistance and Orchard Productivity*
- 2:25-2:45 **Greg Lang**, Michigan State University (20 min) *Integrating Rootstocks and Canopy Physiology into New Orchard Systems*
- 2:45-3:05 **Brent Black** Utah State University (20 min) *Precision Tart Cherry Orchard Management: High Density System Development, Mapping and Variable Rate Applications*
- 3:05-3:30 **Terence Robinson**, Cornell University (25 min) *The Evolution/Revolution in Apple Planting Systems and Rootstocks*
- 3:30-3:50 Coffee break
- 3:50-4:10 **Win Cowgill**, Rutgers University (20 min) *Six Years of Research with Plant Growth Regulators for Feathering Apple Trees*
- 4:10-4:30 **Todd Einhorn**, Michigan State University (20 min) *Practical Orchard Strategies to Manage Flower Development and Fruit Set*
- 4:30-4:55 **Enrico Peterlunger**, University of Udine, Italy (25 min) *New Tools for Physiology Research and Breeding in Grapevine*
- 4:55-5:15 Duane Greene, University of Massachusetts (20 min) A High Rate of ReTain

Influences 'Honeycrisp' Apple Fruit Quality and Storage Potential

5:15-5:40 **Paul Domoto**, Iowa State University (25 min) *Reflections on Thirty-Eight Years of NC-140 Apple Rootstock Research*

5:40-5:45 Symposium wrap-up

6:00-7:00 Reception/social hour (partial sponsorship by Michigan Grape & Wine Industry Council)

7:00-10:00 Dinner and short appreciations (e.g., 2-4 min per speaker) (partial sponsorship by Michigan Grape & Wine Industry Council)

Registration and Travel Arrangements for the Flore/Perry Symposium

Please see the program and itinerary above (subject to slight modifications) for the one-day fruit science symposium, "Forty Years Advancing Fruit Production: Applied Physiology, PGRs, Rootstocks, and Orchard Systems" to honor the retirements of Professors Jim Flore and Ron Perry. As you can see, this is going to be a very stimulating day of state-of-the-art international fruit research presentations, reflections on major advances in fruit production over the years, and ample opportunities to socialize with Jim, Ron, and the many academic and industry colleagues attending the program and/or dinner in beautiful Traverse City, Michigan. Many people are planning to spend extra days and/or bring family members to enjoy the Grand Traverse Bay area - there is much to see and do, from the Sleeping Bear Dunes National Lakeshore to sailing and fishing to dozens of opportunities for tasting of award-winning wines, ciders, and craft beers!

The registration website is now available at: https://events.anr.msu.edu/Hort Dept Fruit Symposium/

Thanks to Michigan State University and industry sponsorships, we were able to keep the registration costs exceedingly low:

\$75 for the Symposium, lunch, wine reception, and dinner

\$35 for the Wine reception and dinner only

\$50 for the Symposium and lunch only

Please register as soon as possible, and note that registration closes on August 17 (we need to provide a firm number for the meals one week in advance of the symposium).

Also, please note that Traverse City is a highly desirable destination in summer, and so this second-to-last weekend of the traditional tourism season means hotel rooms will be increasingly difficult (and increasingly expensive) to procure, as will air travel into Traverse City airport (alternatives are to fly into Detroit, Lansing, Flint, or Grand Rapids, and rent a car to drive to Traverse City).

The MSU Horticulture Department has been able to reserve a block of hotel rooms at the Country Inn and Suites for \$226/night, which are available **until July 23** or until they are gone. Other alternatives may be found at hotel clearinghouse sites such as www.Hotels.com, www.Expedia.com, www.Tripadvisor.com, or www.Airbnb.com.

Ms. Meghan Hill in the MSU Horticulture main office may be able to help with travel questions, and Ms. Greta McKinney from the Horticulture main office will be our on-site arrangements coordinator for the Symposium and meals, so if you have any registration problems or any dietary restrictions, please advise Greta.

If you have any questions about the Symposium program, please don't hesitate to contact any of us, as between us we'll endeavor to get you the answers you'll need to have a wonderful time! We are looking forward to seeing you in Traverse City!

Sincerely,

Todd Einhorn, einhornt@msu.edu Greg Lang, langg@mu.edu Symposium Convenors

Meghan Hill , hehrerme@msu.edu
Greta McKinney, mckin134@anr.msu.edu
Symposium Travel Coordinator and Arrangements Coordinator, respectively

2018 Agriculture Container Recycling Program

A FREE service for agricultural producers in NW Michigan

Where are the collection sites?

- Wilbur-Ellis Co 8075 US-31 Williamsburg, MI 49690
- Ellsworth Farmer's Exchange (Co-op) 11900 Byers Rd. Ellsworth, MI 49729
- CHS Inc
 6766 E Traverse Hwy Traverse City, MI 49684
- <u>Crop Production Services (CPS)</u>
 13343 Pleasanton Hwy, Bear Lake, MI 49614

When can I drop off my ag containers?

- August 20- August 28 You can drop off your materials during regular business hours at any collection site listed above during these dates. G. Phillips & Sons (the ACRC contractor) will pick up containers on Wednesday, August 29.
- NOTE: CPS in Bear Lake will accept containers anytime throughout the growing season. All other collection sites will ONLY accept containers between August 20-August 28.

One Additional Site: Drop off ONLY on August 29

<u>Cherry Bay Orchards</u>
 2801 N. Jacobson Rd. Suttons Bay, MI 49682
 This will be a ONE-DAY collection. You may drop off your containers between 8:00 am and 3:00 pm on August 29.

What do I do to prepare the containers for recycling?

- Triple rinse, remove caps, remove loose leaf labels (if possible), put in large/clear
 plastic bags OR string together 20-30 containers with twine if the containers are
 not up to these standards, they will not be accepted.
- All non-refillable, high-density polyethylene (HDPE) plastic crop protection and specialty pesticide product containers in sizes up to and including 55 gallons are accepted.

***We will have 1 final recycling collection date in 2018 on October 30. Keep an eye out for future fliers about when you can drop off your containers for this collection date!

Questions? Contact Lauren Silver (Isilver@gtcd.org) or Lizzy Freed (Ifreed@gtcd.org) at the Grand Traverse Conservation District. Ph: 231-941-0960

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:

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

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