

Northern Michigan FruitNet 2018

Northwest Michigan Horticultural Research Center

Weekly Update

FruitNet Report – August 7, 2018

CALENDAR OF EVENTS

8/23

NWMHRC Open House

*More details below! Please RSVP
for dinner 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 7, 2017**

New articles

Northwest Michigan fruit report – August 7, 2017

Cherry harvest is winding down, and quality remains quite high despite the hot conditions. Apples are coloring and sizing.

Emily Pochubay and Nikki Rothwell, MSU Extension

Weather Report

Daytime temperatures were hot over the weekend, especially on Saturday, 4 August when some Enviroweather stations in the north reporting 90+ degree F. Things cooled off at the start of the week, but the forecast is predicting daytime highs in the mid-80s for the remainder of the week. The region continues to be dry, however, there were isolated rain showers early this morning; the NWMHRC recorded 0.39" of rain. Prior to this rain, the last rain events reported at the NWMHRC were 0.05" on 1 and 2 August, and on 26 and 27 July, we received just under ¼" of rain. Lastly, we received reports that hail hit the southern part of Old Mission Peninsula on 1 August and caused some damage to winegrapes and the vines.

Crop Report

Sweet cherry harvest is finished in the north. Size of the fruit was an issue this season, and we are collecting some information to determine if the weather played a significant role in sizing the fruit. Other than size, the quality of the sweet cherry crop was good. With the dry conditions, we had little disease pressure and American brown rot infections were minimal. Growers are still harvesting tart cherries in the region. The quality of this crop also continues to be quite good despite the hot conditions. The latest weekly raw product report that ended on 28 July stated that northwest Michigan processed 64.7 million pounds; the 2018 estimate was 150 million pounds. Some growers are indicating that they may pick out shorter than this estimate.

The apple crop is sizing but likely slower than anticipated with the dry conditions. Apples are also starting to color. Some growers are hand thinning at this time. Fruit quality is looking excellent at this time

Pest Report

Brown marmorated stink bug adults were detected in traps at the NWMHRC yesterday (6 August), and we observed activity at our residential trapping location in Leelanau County over the weekend and early this week. While this pest had been detected in residential areas in our region in previous years, we found the first BMSB in a trap adjacent to a commercial cherry block in Grand Traverse County (near Yuba) on 1 August. The BMSB found at the station this week were in traps placed along a woodlot adjacent to a high-density apple block. Thus far, we have found a total of nine BMSB adults since we began trapping for this pest two weeks ago. We have continued to observe nymphs in areas near traps at the residential trapping site.

We found a total of two **apple maggot** flies at the research station this week, and we have received reports of additional detections in commercial blocks near the station. Thus far, AM seems to be in low abundance in some parts of the region while it is high in others; the AM populations are low in the Hart area. However, more southerly regions of the state continue to report high populations. We will continue to monitor AM for the potential of higher flushes of emergence over the coming week.

Second generation **codling moth** adult activity has picked up, and based on degree day accumulations egg hatch is underway from moths that emerged a few weeks ago. We found a total of 19 moths in traps at the station this week.

We are likely at peak **San Jose scale** male flight at this time with some traps catching more than 1,000 males in four days. Scale incidence has increased in recent years, particularly populations in sweet cherries. This season, some sweet cherry growers have considered a post harvest application to target the second emergence of crawlers. Crawler activity has not been detected at this time.

Hot and dry weather has favored **spider mite** and **European red mite** populations in tree fruits this season. Bronzing in apples and some firing symptoms in cherries have been observed at the station. Commercial blocks also have substantial mite populations. European red mite numbers should start to subside in the coming weeks and adult red mites will begin laying eggs that will overwinter.

Spotted wing drosophila (SWD) trap numbers in our region have remained relatively consistent over the last two weeks. This insect has been somewhat unpredictable this year. We hypothesize that the overall hot and dry weather decreased activity and thus there are fewer SWD in traps.

There is very little **cherry leaf spot** incidence at the research station and in the region. Growers who have finished harvesting have started post-harvest applications. In contrast, this season was conducive for **powdery mildew** and this disease is evident in many cherry blocks across the region.

Articles featured in past FruitNet Reports

Ridgefest 2018 - Annual Tour- Thursday, August 9th

1st Stop:

Patrick Goodfellow Orchards
9441 Peach Ridge Ave NW Sparta, MI 49345

11:15 am- ***Arrival and Registration***

11:30 am- ***Lunch***

After lunch, we will do a quick tour of Patrick's new storage. After this, we will be getting on trailers and head out to Patrick's "planting in place".

Topic of Discussion: What has Patrick learned? The Pros and Cons of planting bench grafts in place.

Speaker: Patrick Goodfellow

Jump back on trailers

2nd Stop:

Summit Farms
9600 Fruit Ridge Ave Sparta, MI 49345
43.137572, -85.766580

Topic of Discussion: Managed Varieties: Where we have been, where we are now and where we are going.

Speakers: Wanda Heuser, Bill Dodd, Scott Swindeman, Don Armock and Chris Sandwick

Jump back on trailers

3rd Stop:

Green Tree Orchards
9557 Fruit Ridge Ave NW Sparta, MI 49345
43.138788, -85.770750

Topic of Discussion: HC/ABA Trial, MSU Extension Report, Sunburn Control

Speakers: Ryan and Jordan Rasch, Todd Einhorn, Ty Wittenbach, Amy Irish-Brown

Jump back on trailers

4th Stop:

Windy Ridge Orchards
452 Harding St. Conklin, MI 49403
43.130744, -85.800105

Topic of Discussion: New 7/11 planting. Alternate row spacings and how it will be managed, Irrigation water quality, Precision Crop Load Management using robotics
Speakers: Kyle Rasch, Chris Lattak, Dave Veltema, Phil Schwallier

Jump back on trailers

5th Stop:

Schaefer Cider Co
1051 Harding St. Conklin, MI 49403

End of Tour: Cider Social/Snacks

6:00 pm will be our target time for the social to start. There will be trailers heading back to Patrick's right after the tour for those who need to leave early.

NORTHWEST MICHIGAN HORTICULTURAL RESEARCH CENTER ANNUAL OPEN HOUSE

The Northwest Michigan Horticultural Research Center's (NWMHRC) annual open house is scheduled for Thursday, August 23, 2018. This year's event will include educational sessions, equipment demonstrations, a social hour, and dinner.

We have moved to an every-year equipment show, so vendors and equipment will be on hand all day at this year's open house. We have also added annual equipment demonstrations - we have invited equipment companies to bring in new orchard and vineyard equipment and technologies for demonstration purposes. We hope to be able to showcase new advancements in orchard and vineyard assist technologies at the 2018 NWMHRC Open House.

Free educational wagon tours of the NWMHRC will feature MSU specialists and will take place from 1:00 – 2:15 PM. The tour will include wine grape and tree fruit specialists that will speak on a variety of topics. We will discuss fire blight resistance screening results and demonstrate an orchard platform in high-density apples. We will also showcase some work we have conducted using drones as bird deterrents in sweet cherry orchards. We will also present data on the effectiveness of spotted wing drosophila management strategies that were employed in 2018. Cherry leaf spot efficacy will also be discussed. We will demonstrate some weeding strategies in wine grapes, and wine grape specialists will be on hand to review the season and prepare for harvest.

After the educational sessions, growers are encouraged to meet with equipment vendors and participate in the demonstrations from 2:30 – 5:30PM. We will host as many equipment vendors to hold demonstrations as we can in this time frame. We hope that growers and others will be sure to attend this part of the 2018 open house. Demonstrations will be followed with a social hour from 5:30 – 6:15PM and dinner at 6:15PM.

In past years, the Leelanau Horticultural Society has held their annual meeting, but this year they plan to just host the social hour and dinner. We encourage growers from all over the northwest region to join us for this fun and relaxed event.

The 2018 NWMHRC Open House is co-sponsored by the Leelanau Horticultural Society and Michigan State University AgBioResearch, and Extension, with support from Parallel 45 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 by August 20, 2018. 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 fun and educational event!

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 than 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 than 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 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**. **symposium 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
- Crop Production Services (CPS)
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

- Cherry Bay Orchards
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 (lsilver@gtcd.org) or Lizzy Freed (lfreed@gtcd.org) at the Grand Traverse Conservation District. Ph: 231-941-0960

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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

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>