Northern Michigan FruitNet 2018
Northwest Michigan Horticultural Research Center

Weekly Update

FruitNet Report – July 27, 2018

CALENDAR OF EVENTS

8/23   **NWMHRC Open House**
                                           More details below!

What's new?

- **SWD Update for NW Michigan, 27 July, 2018**

New articles

SWD Update for NW Michigan, 27 July, 2018

Despite the large increases in spotted wing drosophila (SWD) trap count at the NWMHRC, the regional traps for the week of 23 July in the five-county area remain relatively low. In the forty traps outside of the NWMHRC, we caught a total of 99 flies. Last week, we caught a total of 46 flies in the regional traps, which is just about half of the number of flies we caught during this current week (Table 1).

The trap count at the NWMHRC was extremely high, and we hypothesized that the rain event over the past weekend increased fly activity and resulted in the much higher trap count at the station. We also have many unsprayed trees/blocks on the farm. The rain events and more moderate temperatures likely contributed to the doubling of fly numbers in this week's traps compared to last week's numbers. We hypothesize that cooler wetter weather today, Friday (27 July), could also result in higher trap counts next week. The weekend is predicted to be cooler than in recent weeks, and these weather conditions are conducive for SWD activity. Many growers still have one to multiple weeks before harvest ends, and fruit will need to continue to be protected from SWD oviposition.

Table 1. Total SWD trap count for NW Michigan for 2018

	wk of 5/15	wk of 6/4	wk of 6/11	wk of 6/18	wk of 6/26	wk of 7/2	wk of 7/9	wk of 7/16	wk of 7/23
North Manistee	trap set	0	0	0	0	16	2	4	12
Benzie	trap set	0	0	2	0	90	10	10	23
Yuba	trap set	0	0	0	0	40	19	7	17
Central Lake	trap set	0	0	0	0	1	3	0	0
Old Mission	trap set	1	0	1	0	12	3	1	11
Suttons Bay	trap set	0	0	1	1	3	2	4	18
Cedar	trap set	0	0	0	0	50	84	15	14
East Leland	trap set	0	0	0	0	25	0	1	1
Northport	trap set	0	0	0	1	15	3	4	3
NW Station (unsprayed)	NA	trap set	1	2	3	180	110	10	936
		1	1	6	5	432	236	56	1035

The trap count numbers increased this week at the NWMHRC, and we found a total of four larvae out of 144 gallons of fruit that we collected from trees in our efficacy trial today (27 July); two larvae were in our control treatment (i.e. unsprayed trees). Even with high SWD pressure, these low infestation numbers indicate that the hot and dry weather has influenced SWD behavior this season. We will continue to report SWD traps numbers next week.

Articles featured in past FruitNet Reports

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 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 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.

Station	Days ahead of normal			Days ahead of last year		
	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

Project GREEEN Drone Workshops

Background: Thanks to a grant from AgBioResearch at MSU, RS&GIS and Dr. Bruno Basso will be conducting a series of **free** Drone workshops over the next two years, for growers across the state. Through these workshops, growers will develop an understanding of drone- based data collection and analysis with specific application to their commodity groups. Each of the 2-day workshops will target a specific commodity group including: tree & bush fruits, viticulture, nursery stock, and row crops.

Registration: **https://goo.gl/forms/UQDAnHWxBpRtnopz2**

Agricultural Specialization (Commodity Group)	Location	Date
Tree / Bush Fruit	Southwest MI Extension Center, Benton Harbor	August 9 -10, 2018
Grapes	Northwest MI Horticulture Research Center, Traverse City	September 13 – 14, 2018

Nursery Stock	Michigan State University, East Lansing	September 6-7, 2018
Row Crops	TBD	TBD

Overall Attendees will:

- Learn the essential elements required to safely conduct commercial flight and mapping operations in the National Airspace System including flight planning and preparation
- Take part in hands-on drone flights both manual and autonomous.
- Develop an understanding of analysis techniques and applications in precision ag
- Gain a brief overview of Remote Sensing and its management applications.
- Leave the course with a clear understanding of the Drone-to-GIS workflow, including planning and completing missions, processing data and analyzing said data in GIS

Space is limited, if you are interested in attending please register and answer the questions at: https://goo.gl/forms/UQDAnHWxBpRtnopz2

Interested parties must sign up by July 25, 2018, we will confirm your spot by August 1, 2018.

Please contact Erin Bunting (ebunting@msu.edu) or Bruno Basso (basso@msu.edu) for more information

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