Northern Michigan FruitNet 2017
Northwest Michigan Horticultural Research Center

Weekly Update

FruitNet Report – August 1, 2017

CALENDAR OF EVENTS

8/4	**First Friday Meeting** NWMHRC, 3-5PM
8/24	**NWMHRC Open House, Equipment Demo and Leelanau Hort Society Annual Meeting and Dinner**

What's New?

- **Wine Grapes, First Friday Meeting and Brambles**
- **SWD Numbers Remain Lower than Anticipated**

NEW ARTICLES

Wine Grapes, First Friday Meeting and Brambles

Duke Elsner, MSU Extension

Wine Grapes
Some varieties are at berry touch, but most are at pea-sized berries. Cluster closure will come along soon for the tight-clustered varieties, so pesticide penetration will become more difficult. Most reports that I've received agree that powdery mildew is very light at

this time. I have only seen downy mildew on wild grapes. A few sites have had potato leafhopper injury at quite noticeable levels.

First Friday Meeting
Parallel 45 Vines and Wines and MSU Extension will be hosting the next "First Friday" meeting in the research vineyard at the Northwest Michigan Horticultural Research Center on August 4, 3-5 PM. The topic for the meeting will be recent activity and future plans for the research vineyard. Thomas Todaro, our new Extension Viticulturalist for northwest Michigan, will be on hand—so come out and meet our new addition to the MSU Extension team.

Brambles
I have received reports of very damaging infestations of Spotted Wing Drosophila (SWD) in red and black raspberries at many sites in the norther lower peninsula. Aggressive management will be needed to save the remaining portion of the summer bramble crop, and then the same diligence will be required for those growing fall raspberries.

SWD Numbers Remain Lower than Anticipated

This season has been conducive for spotted wing drosophila (SWD) population growth: excessive rainfall, humid conditions, and relatively cool temperatures. Additionally, we caught our first flies during the week of 22 May, which was an earlier catch than in previous seasons. Furthermore, other fruit growing regions in the state have seen faster than normal increases in SWD population growth. Despite all of these factors that are favorable for SWD population increases, our adult fly catches in growers' orchards remain relatively low (Table 1). The SWD trap count at the NWMHRC is definitely on the rise, as a result of minimally sprayed blocks used for SWD trials, which is to be expected. However, even with higher adult catch, we have observed good SWD larval control in tart cherry blocks that are adjacent to unsprayed blocks with highly infested fruit.

At this time, we are optimistic that northwest Michigan growers have done an excellent job with SWD control this season. We have been intensely sampling fruit for SWD larvae in commercial blocks, and very few to no larvae have been observed. This news is again positive, but we remind growers to remain diligent with SWD spray programs for the remainder of the season. As more and more orchards are harvested, the growing SWD female population will be looking for fruit for egg-laying. Pressure will be highest on the blocks that will be harvested late and/or if unharvested blocks remain in an area that has been largely harvested (i.e. the last neighbor to harvest his crop will have the highest SWD pressure). Growers should remember to use materials that are rated excellent and have short PHIs. Both Mustang Max and Exirel are rated excellent and have 3 day PHIs. Based on anecdotal observations, we do not recommend stretching intervals of Mustang Max beyond 4 days.

Lastly, there is rain in the forecast for Thursday, and growers should be sure to re-apply insecticide for SWD control, particularly if harvest is extended or delayed. Despite the low adult fly catch across the region, we have continued to detect SWD larvae in sentinel fruit. Sentinel fruit are unsprayed fruit that are placed in a commercial orchards to better understand the pressure from SWD female oviposition. Each week, we have placed 10 cherries in five containers (Figure 1) in a commercial orchards and check for larvae after 7 days. We regularly find SWD larvae in these sentinel fruit, which is a reminder that unprotected fruit (or fruit with ineffective spray residue) can become infested quickly because SWD pressure is high. Hence, growers should be sure to have good coverage to prevent infestation.

Figure 1. Ten unsprayed sentinel fruit in a commercial tart cherry orchard.

NW MI SWD Trap Counts – 8/1/17

Location and # of	wk of 5/15	wk of 5/22	wk of 5/29	wk of 6/5	wk of 6/12	wk of 6/19	wk of 6/26	wk of 7/3	wk of 7/10	wk of 7/17	wk of 7/24	wk 7/31

traps out												
North Manistee - 7	trap set	0	0	0	2	Not checked due to REIs	1	6	14	25	96	
Benzie - 44	trap set	3	2	4	23	50	23	48	103	269	912	
Yuba - 22	trap set	0	0	0	1	16	7	13	23	73	135	
Central Lake - 7	trap set	0	0	1	0	1	0	0	0	47	16	
Old Mission - 26	trap set	1	0	0	0	7	1	0 - Not all traps checked due to REIs	15	93	267	
Bingham - 75	trap set	0	0	0	3	38	92	68	73	777	1935	174
Cedar - 8	trap set	0	0	0	1	12	0	3	4	20	70	
East Leland - 7	trap set	0	0	0	0	0	0	Not checked due to REIs	1	1	2	
Northport - 7	trap set	0	0	1	0	2	3	2	13	55	47	

***Trap numbers are incomplete**

ARTICLES FEATURED IN PAST FRUITNET REPORTS

CIAB Newsletter – Reminder for Growers

Please view the attached document Grower Diversions Reference Chart

CROP ESTIMATES AND MARKET CONDITIONS-On June 22, 2017 the CIAB met to discuss crop size and market conditions for the 2016/17 crop year. Sales, inventories and compliance activities were also discussed by the board along with carryout needs. Information from the meeting is presented below:

Crop Estimates (million lbs):

District	USDA-NASS	CIAB
NW Michigan		130
WC Michigan		26
SW Michigan		28
Subtotal, MI	164.5	184
Washington	25.3	26
New York	9	8
Wisconsin	10.4	9
Utah	29	25
Oregon		2
Pennsylvania		5
TOTAL	238.2	259

USDA-NASS reported their estimate based on surveys in late May and early June. Surveys were not conducted in Oregon and Pennsylvania. The board voted unanimously to adopt the CIAB estimate for the preliminary calculation of the optimum supply formula (OSF) for June. Unregulated districts for the preliminary restriction are Oregon and Pennsylvania.

OSF CALCULATION AND RESTRICTION- Free and restricted inventories are used, along with the crop estimate and sales, in the calculation of the OSF. The inventory breakdown is included below:

Inventory Type	**Million lbs**
Free	**110.5**
Restricted	**65.9**
Total	**176.4**

Inventory by type (as of May 31, 2017):

Product Type	**Million lbs**	**Percent of Total**
Frozen, General use	93.2	53%
Frozen, Dryer stock	42.6	24%
Waterpack	2.1	1.2%
Piefill	9.3	5.3%
Puree	0.6	0.3%
Juice	24.1	13.7%
Dried	2.4	1.4%
Other	1.7	1.0%
Total Carry-in	**176.4**	**100%**

Demand- 3 Year Average Sales- Sales for the marketing year ended May 31, 2017 are 260.8 million lbs. For calculation of the OSF, three year average sales are used to determine demand, plus a market growth factor (10% of 3 yr avg or 37.6 mm lbs). Average sales for the calculation are (in million lbs):

	Gross sales	Exports	USDA- Bonus Sales	Free Sales
2014	235	12	21.9	201.1
2015	257	12	46.8	198.2
2016	260	15	41.3	203.7
3 yr Avg.	**250.6**	**13**	**36.7**	**201**

OSF and Preliminary Restriction Percentage-The following table lays out the preliminary OSF calculation as approved by the CIAB on June 22, 2017. The adjusted surplus amount is divided by the amount of regulated tonnage available to calculate the restricted percentage amount (63.4/240 = 26%). The regulated tonnage number is smaller than the total crop estimate since Oregon and Pennsylvania are not included and also because the CIAB included an estimate for in-orchard diversion of 12 million lbs.

PRELIMINARY OSF CALCULATION-

Supply	
U.S. Crop	**259**
+ Carry In	**110.5**
=TOTAL SUPPLY	**369.5**
3 year sales avg	**201**
+ Target Carryout	**45**
+USDA Adjustment	**36**
=OPTIMUM SUPPLY	**282**
SURPLUS (TOTAL – OPTIMUM)	**87**
-Market Growth Factor	**23.7**
=Adjusted Surplus	**63.4**

Please note: Growers should contact their processor(s) directly about plans for compliance with the restriction percentage.

In-Orchard Diversion- In contrast to last year, the CIAB chose to include an estimate for in-orchard diversions for calculation of the OSF in June. Including this estimate in June increases the preliminary restriction percentage, but also helps to lessen the impact of changes in September when the CIAB sets the final restriction percentage.

SWD- A subcommittee of the CIAB worked this Spring to address concerns about in-orchard diversion practices and growers dealing with SWD (Spotted Wind Drosophila). The subcommittee recommended a proposal to amend in-orchard diversion practices and the proposal was adopted unanimously by the CIAB at its May 3 meeting in Grand Rapids, MI. Since we do not anticipate the proposal to be in place this season, the CIAB has moved ahead with retraining in-field compliance staff so that marketability for diversion is consistent with the FDA tolerance for canned and brined cherries. In practice, this means tart cherries will be rejected for in-orchard diversion only if they contain more than 5 tart cherries with worms, or 7 tart cherries with rot from a sample of 100. If

growers have any questions about this inspection process, please feel free to contact the CIAB office directly.

MARKET EXPANSION- In January the CIAB tasked the Executive Committee with developing a proposal to address competition from non-domestic tart cherries. The committee met several times by conference call and in person to develop a proposal that was both workable and acceptable to as many in the industry as possible. The committee invited guests for input from sectors most impacted by non- domestic competition. Ultimately, a proposal was presented to the full CIAB on May 3, 2017 and it passed unanimously. USDA has agreed to allow the CIAB to adopt the provisions of the proposal in practice while it works its way through the informal rule making process. The most significant changes from the proposal are:

1. Market expansion projects will be eligible to earn diversion credits for 5 years

2. Projects that target non-domestic competition can be approved through the existing NPNM process, or through an expedited process by providing a statement of intent to use domestic tart cherries in place of non-domestic

3. Projects that target non-domestic product can be supplied by more than one handler and multiple handlers can receive credit for that project

CALENDAR of Events July – October, 2017

Aug.	7, 14, 21, 28 - Form #1 Weekly Raw Product
Sept. 1	Form 2 Cherries Acquired from Producers
Sept. 14	CIAB meeting, Fairport, NY
Oct. 2	Form 4 Handler
	Reserve Plan and Final Pack Report
	Form 5A Inventory Reserve Summary
	Form 5B Inventory Location Report

Soil Health Field Day – Antrim County

Presented by the Antrim Conservation District

Friday, August 11, 2017 from 10 AM – 3PM

Shooks Farm, 5833 Shooks Rd. Central Lake, MI 49622

$10 per person. Registration includes a local foods lunch. Registration begins at 9:15AM. MAEAP Phase one credit for attending.

Topics include:

- Up to date science and demos on soil health
- Soil heath to weather the weather extremes
- Beyond the basics with Mycorrhizal Fungi
- Benefits of no-till, cover cropping and strip cropping

Only pre-registration guarantees lunch. For more information and to register, visit www.antrimcd.com or call 231-533-8363

Soil Health Field Day – Kalkaska

Presented by the Kalkaska Conservation District

Thursday, August 10, 2017 from 10AM – 2:30PM

Birgy Farms, 1723 Birgy Rd SW, Fife Lake, MI 49633 (Enter on Puffer Road, SW of house)

$10 per person. Registration includes a local foods lunch with grass-fed beef. Registration begins at 9:15AM. MAEAP Phase one credit for attending.

Topics include:

Soil health to weather the weather extremes
Beyond the basics with Mycorrhizal Fungi
Grazing to improve soil health

Only pre-registration guarantees lunch. For more information and to register, visit www.Kalkaskaconservation.org or 231-258-3307

Predicted 2017 Apple Harvest Dates

Phillip Schwallier, District Horticulture Educator Amy Irish-Brown, District ICM Educator MSU Extension

The predicted harvest dates for every MAWN weather station is now available on Enviroweather web site at Michigan State University. We have less confidence in this year's prediction for the middle of the state. Frost and a long cold bloom make it difficult to predict the exact full bloom dates. Apple set is from two year old and in some places from one-year-old wood that will produce a very mixed maturity at harvest. In general,

2017 Predicted Harvest Dates are roughly a few days ahead of normal except in the north, which might be normal. Predicted dates are a fairly normal except in the north ahead of last year. Bloom dates this spring were early in the south and normal in the north. May was a cold month and a long drawn out bloom period especially in the middle of the state. We do expect mixed maturity at harvest time due to the long bloom.

As always, the weather seems to be unusual each year and 2017 was no different. It began with what appeared to be another very early spring, however, cold May weather delayed bloom to a more normal timing from the middle state to the north. Most areas bloomed early. The cold May was also very dry and June followed with normal to hot temperatures, which give us early to normal predicted harvest dates. Frost damage is considerable and the state's cropload is approximately 65% of normal. The tops of trees are heavy and the bottoms are light. 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.

The normal harvest dates for other varieties are listed in Table 3 for the Grand Rapids area. This year's 2017 predicted dates 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). Use Table 3, 2017 Predicted Harvest Dates for Other Varieties, to time ReTain applications and adjust for varieties and locations.

Table 1. 2017 predicted peak harvest dates.

Full bloom date 2017				**Predicted harvest date 2017**			
Station	**McIntosh**	**Jons**	**Reds**	**McIntosh**	**Jons**	**Reds**	**Observer**
SWMREC	23-Apr	24-Apr	25-Apr	28-Aug	15-Sep	22-Sep	Shane
Deerfield	25-Apr	26-Apr	27-Apr	29-Aug	18-Sep	25-Sep	Tritten
Romeo	28-Apr	1-May	1-May	2-Sep	25-Sep	1-Oct	Tritten
Peach Ridge	1-May	5-May	7-May	5-Sep	27-Sep	4-Oct	Irish-Brown
Hart	11-May	13-	14-	13-Sep	30-Sep	6-Oct	

		May	May				Irish-Brown
NWMHRS	19-May	20-May	21-May	19-Sep	8-Oct	14-Oct	Rothwell

Table 2. 2017 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	10	6	6	2	1	0
Deerfield	10	3	7	3	-1	0
Romeo	11	0	2	5	1	4
Peach Ridge	10	-1	1	2	2	1
Hart	5	3	8	0	2	2
NWMHRS	3	-2	3	1	-8	-7

Table 3. Normal and 2017 peak harvest dates for varieties for the Grand Rapids area

Variety	**Normal date**	**2017 predicted date**
Paulared	8/24	8/19
Gingergold	8/26	8/21
Gala	9/10	9/5

McIntosh	9/15	9/5
Honeycrisp	9/18	9/15
Empire	9/26	9/25
Jonathan	9/28	9/27
Jonagold	9/28	9/27
Golden Delicious	10/2	10/1
Red Delicious	10/5	10/4
Idared	10/10	10/9
Rome	10/15	10/14
Fuji	10/25	10/24
Braeburn	10/25	10/24
Goldrush	11/1	10/31

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