

# Northern Michigan FruitNet 2013

## *Weekly Update*

### Northwest Michigan Horticultural Research Center

June 18, 2013

#### GROWING DEGREE DAY ACCUMULATIONS AS OF June 17th AT THE NWMHRC

Year	2013	2012	2011	2010	2009	2008	23yr. Avg.
<b>GDD42</b>	927	1352	896	1259	838	918	1008.4
<b>GDD50</b>	539	793	487	709	407	494	559.6

#### Growth Stages at NWMHRC (June 17, 4:00 p.m.)

**Apple:** Red Delicious – 18 mm

Gala – 18 mm

Yellow Delicious – 16 mm

**Pear:** Bartlett: 15 mm

**Sweet Cherry:** Hedelfingen: 12 mm

Napoleon: 12 mm

Gold: 11 mm

**Tart Cherry:** 11 mm

**Balaton:** 11 mm

**Apricot:** 24 mm

**Grapes:** 10-16 " shoots

#### NORTHWEST MICHIGAN REGIONAL REPORT

N.L. Rothwell, NWMHRC

Diseases have made their way to northern Michigan following cool and wet conditions; insects are still hard to find. Temperatures remain on the cool side across the northwest, and fruit continues to size slowly. Tart cherries have not increased in size in over seven days, and apples have just grown a little. Despite the accumulation of degree days, we are not far off our 20+-year average, but fruit development is moving very slowly. So far this season, we have accumulated 927GGD base 42 and 539GDD base 50. No rain was in the forecast last week, but most of the region had a surprise shower that amounted to 0.92" of rain at the NWMHRC. Most growers were likely covered for this event, but since this rainfall was not predicted, we hope this event will not result in increased disease incidence as it was an infection period for both **apple scab** and **cherry leaf spot**.

**Apple. Apple scab** lesions are starting to show up across the region from early infection periods. According to the model, we are at 100% maturity and 95% discharge. From this last rain, in most years, we would typically call the end to primary scab, but since they are still catching spores on the Ridge and in SE Michigan late last week, we think that growers should keep covered up through the next rain event. Additionally, growers that have lesions on their leaves will need to be protected beyond primary scab to prevent fruit scab later in the season.

**Fireblight** also started to show up last week in many different varieties. Most of this disease is a result of those perfect fireblight conditions during bloom when we had warm temperatures coupled with rain or fog events. However, some of the blight is a result of a hail event. Growers with a

history of fireblight should be looking for the typical shepherd's crook that shows up when terminals have been infected.

Again this week, we have caught very few **codling moth** here at the NWMHRC—only an average of 2.5 moths per trap. Because these numbers are so low, we are hesitant to set a biofix although we have caught moths on three successive dates. Many growers throughout the region have already set a biofix date, and some were set at the end of May. Population size plays a huge role in the numbers of moths captured at each farm, which is why Michigan State University Extension recommends that growers should be trapping on individual blocks on their own farms. Very few other insects were caught in apple this week: zero **obliquebanded leaf rollers**, seven **spotted tentiform leaf miners**, and an average of two **Oriental fruit moths**.

**Cherry.** Cherry diseases have also become apparent across the region late last week. First, we are starting to see more **bacterial canker** showing up in both tart and sweet blocks. Anecdotally, more leaf symptoms are appearing in tart blocks while both leaf and fruit symptoms are showing up in sweet cherry blocks. As mentioned on Friday, growers with canker on the fruit need to be scouting for **American brown rot** (ABR) fungus. This fungus is an opportunist that will move into fruit that has been damaged, such as bird pecks or in this case, fruit that has been infected with bacterial canker. American brown rot is a disease that is difficult to control as we approach harvest, and sporulating green fruit now presents an even bigger challenge for growers. Gem, a strobilurin, is an anti-sporulant. In blocks where cankered cherries are infected with ABR and are sporulating, we are recommending growers come in at the next cover with a full rate of Gem. This material is also good on **cherry leaf spot** and ABR, but the anti-sporulant properties will minimize the spores on already infected fruit. Growers should save their Indar applications for closer to harvest.

We are also recommending Gem for orchards that have been infected with the **European brown rot** (EBR) fungus. From samples collected around the region, we have confirmed that many that have the collapsing of spurs with and without leaf flagging is in fact European brown rot. This disease favors cool and wet conditions, which have not been in short supply so far this season. The orchards hardest hit are near the tips of peninsulas and orchards that do not have good airflow. These orchards did not dry off quickly with all of this spring's fogs and wet conditions, and the EBR fungus was able to infect Montmorency spurs. European brown rot is a close relative to American brown rot, and both fungi are in the genus *Monolinia*. We have not observed EBR to infect the fruit, but we have no reason to suspect this disease does not have the capability of causing fruit rot; therefore, we are recommending growers with substantial EBR infection use Gem to minimize sporulating spurs, leaves and pedicels with the intention of minimizing fruit infection later in the season. Gem at the full rate will be a good next application to minimize EBR sporulation and because this material is also good against cherry leaf spot and ABR.

**Cherry leaf spot** lesions have been observed in NW orchards. As we head into second cover, coppers are a good rotational fungicide, particularly as temperatures remain cool. Coppers used at a rate of 1.2lb of metallic Cu have provided excellent efficacy against leaf spot. Syllit (dodine) is also a good option at this time. If growers used one of the new fungicides at first cover, an alternative mode of action should be used at this second cover timing.

Insect activity is minimal in cherry. We caught our first **obliquebanded leaf roller** in traps here at the station, but very few area scouts have caught OBLR this week. Given the size of the larvae we have been collecting, we expect pupation of these larvae in the coming week--we just need a bit of warm weather. For growers using the P.I.T.S model for timing insecticide applications against plum curculio in tarts, we have accumulated 365GDD since the full bloom date of 17 May. Any larvae laid in cherries prior to the 375GDD base 50 from full bloom will drop out of the cherries and will not be present at harvest. **American plum borer** flight is on the decline, but **lesser peachtree bores** were still caught in relatively high numbers this week: average of 10 moths per trap. We have captured no **peachtree borers** (greater peachtree borers) yet this season.

## Grape Report

Duke Elsner, Grand Traverse County MSUE

In the last week the first adult **rose chafers** appeared in area vineyards. They were reported to be in high numbers at one site in Antrim County, but the numbers seem to be low elsewhere. Just one warm day without much wind and this insect can arrive in large numbers. Mature vineyards are not usually impacted to a great degree if the beetles stay on the leaves – the skeletonization from their feeding typically does not result in significant injury. However, in new or young vines they can cause a real problem with leaf area loss. Last year we even saw rose chafer feed on grape blossom clusters where the populations were high so it would be wise to keep an eye on their activity this year.

Through late last week there were still no adult **potato leafhoppers** in the research vineyards at the NWMHRC, but we have received reports of some typical foliar feeding symptoms at other sites.

**Powdery mildew** ought to be out there somewhere, given the number of rainy periods earlier this season. It still has not appeared on un-sprayed vines at the research vineyard, and I have not seen it in my travels during the last week.

The next MSUE/Parallel 45 meeting is coming up, on **Friday, July 12, from 3-5 p.m.** We are still in the process of determining the location and topic for the meeting. Feel free to contact me with suggestions or offers to host the meeting.

## FIRST CAPTURE OF SPOTTED WING DROSOPHILA IN MICHIGAN FOR 2013

### Early capture of spotted wing Drosophila emphasizes the need for monitoring and preparing for fruit ripening period.

Posted on **June 11, 2013, MSUE News**, by **Rufus Isaacs**, Michigan State University Extension, Department of Entomology

A single female [spotted wing Drosophila](#) (SWD) was collected in a trap checked on **June 6, 2013**, in Michigan's Allegan County. This fly was found in a yeast-sugar baited trap at a tree line adjacent to a commercially-managed blueberry field. The timing of this capture is about two weeks later than our first catch in 2012, reflecting the cooler spring season. Also, as part of our research on SWD, there are a large number of traps in the region where this fly was found, so we have a very low proportion of traps catching this pest (about 1 percent of traps). In the previous few years of our experience with SWD, there were low captures for many weeks before the population increased when fruit became ripe. It is too early to tell how this will look for 2013.

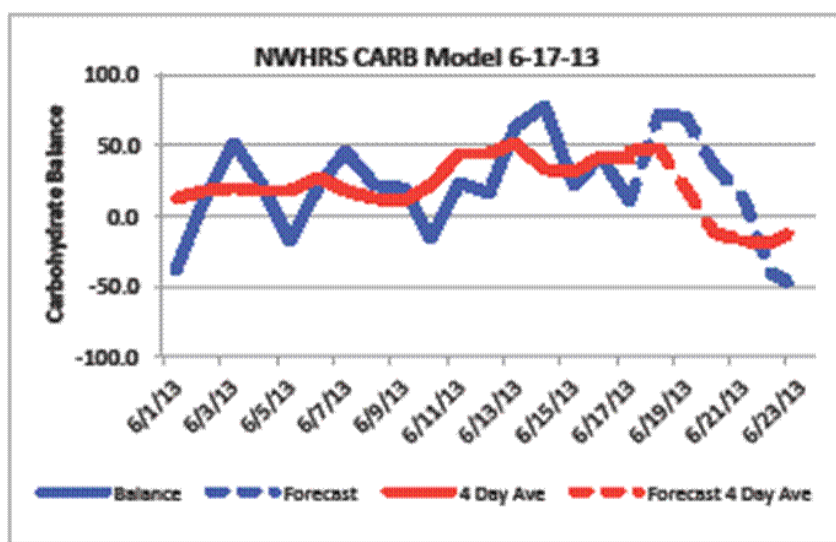
Most fruit fields and orchards are still with green fruit, meaning that SWD cannot yet infest berries, so for most fruit growers there is **no need to spray insecticides for control of this fly yet**. For strawberry growers who do have ripe fruit, monitoring those fields and checking ripe berries for larvae should be a first step before taking any action as the numbers of SWD are currently extremely low. However, this can be considered an early warning that SWD is starting to become active and that monitoring programs should be in place to determine when SWD becomes active in different regions and in your farm. [Michigan State University Extension](#) has a monitoring network in place across the major fruit production regions and we will be reporting those catches weekly as part of the [MSU Extension Fruit News](#).

If you are checking traps, be aware that the female SWD that have no spots on the wings look quite similar to a native vinegar fly that could be confused with SWD. See the MSUE News article "[Spotted wing Drosophila monitoring should be started soon – know what to look for](#)" for a good photo of the look-alike next to SWD.

This article was published by [Michigan State University Extension](#). For more information, visit <http://www.msue.msu.edu>. To contact an expert in your area, visit <http://expert.msue.msu.edu>, or call 888-MSUE4MI (888-678-3464).

### APPLE THINNING CARB MODEL

Based on the model, we are entering a period of small stress at this time. However, apple size is large depending on location and variety; here at the NWMHRS, Macs are at 25mm, Galas and Red Delicious are at 18mm, and Golden's are at 11mm. Phil Schwallier is recommending standard rates for apples in the optimal thinning window and aggressive rates when apples are too large.



Remember that the recommendation in the table below are recommendations based on the optimal thinning window:  
10-15mm.

NWMHRS	Solar Rad	Min	Max	Carb Balance	4 Day Ave	Recommendation
6/10/13	12.1	58	74	-17.1	20.3	Increase 30%
6/11/13	22.0	56	77	22.6	43.5	Increase 30%
6/12/13	19.0	55	81	14.2	43.1	Increase 30%
6/13/13	24.7	53	65	61.4	49.9	Increase 30%
6/14/13	29.9	47	71	75.9	31.7	Increase 30%
6/15/13	13.6	49	73	20.9	30.7	Increase 30%
6/16/13	24.9	56	78	41.5	40.3	Increase 30%
6/17/13	13.0	56	71	10.0	38.9	Increase 30%

6/18/13	25.0	46	69	70.9	46.2	Increase 30%
6/19/13	25.0	43	73	69.2	18.0	Increase 30%
6/20/13	21.0	50	79	34.3	-12.2	Use Standard Rate
6/21/13	21.0	56	84	10.3	-19.0	Use Standard Rate
6/22/13	13.0	62	86	-41.7	-20.3	Reduce 15%
6/23/13	13.0	64	87	-51.7	-9.1	Use Standard Rate

## THREE OPTIONS TO DEFRUIT YOUNG APPLE TREES

**Remove fruit that negatively affect apple tree growth by using one of these options recommended by Michigan State University Extension.**

Posted on **June 11, 2013, MSUE News**, by **Phil Schwallier**, and Amy Irish-Brown, Michigan State University Extension

Newly planted and young apple trees often set croploads that have negative effects to the vegetative growth of the tree in these early establishment years. Removing these fruits can be accomplished by three options as recommended by [Michigan State University Extension](#).

If bloom is light, carefully **pruning off the flowers with pruning scissors** will eliminate the crop. Be careful to remove only flowers and not leaf tissue or growing points. Perform this task when conditions will remain dry for 24 hours to avoid causing fire blight infections sites. This is a good choice if other tree-training tasks require time in the orchard already.

**Two spray applications of Sevin plus MaxCel** at petal fall and again at 10 millimeters will thin young trees aggressively without stress to the tree. Use 1 quart Sevin plus 2 quarts MaxCel per 100 gallons.

**Another spray choice is Sevin plus NAA** at petal fall and again at 10 millimeters. This will also thin effectively, but NAA is a harsh thinner and some stunting of the tree will occur. Rates to use are 1 quart Sevin plus 15 ppm NAA. If conditions at these thinning times are excessively hot (more than 90 degrees Fahrenheit), some leaf drop may occur with the NAA combo. Red Delicious and Fuji are sensitive to NAA, therefore consider using the MaxCel combo on these varieties.

This article was published by [Michigan State University Extension](#). For more information, visit <http://www.msue.msu.edu>. To contact an expert in your area, visit <http://expert.msue.msu.edu>, or call 888-MSUE4MI (888-678-3464).

## EVENTS

### CHERRY VARIETY & HIGH-TECH RESEARCH SHOWCASE

You are invited to attend this year's *Cherry Variety and High-Tech Research Showcase* on **Tuesday, July 9th** at the MSU Clarksville Horticultural Experiment Station starting at 10:30 a.m. with an apple thinning mini-workshop. A break for lunch at noon will be followed by educational sessions on cherries beginning at 1:00 p.m. There is **no** registration fee. This showcase is sponsored by MSU Extension, Summit Tree Sales, and International Plant Management. For more details, see [attached flier](#).

### 2013 HOPS FIELD DAY & TOUR – AUGUST 9

MSU Extension is offering a **Hops Field Day and Tour** on **Friday, August 9 from 8 am – 5pm**. Participants will meet at the MSU Horticultural Research Center (6686 S Center Highway, Traverse City, MI 49684), board a chartered bus and travel to **Empire Hop Farm** on the Leelanau Peninsula to tour one of the largest hop yards in Michigan. The group will then travel to **Fresh Roots Organic** hop yard, and then continue onto **Brewery Terra Firma**, Michigan's first farm brewery, for lunch and a tour. In the afternoon participants will travel by bus to tour **New Mission Organic's** hop yard and processing operation, near Omena.

Throughout the tour hop growers will be on site to discuss all aspects of hop production; initial costs, plant care, disease and insect management, short and tall trellis systems, trellis construction, and organic and conventional growing practices. **Dr. Heather Darby**, professor from the **University of Vermont**, will be in attendance to discuss hop growing practices, challenges and recommendations from the Northeast United States. The group will then return to the Research Center for research trial updates, followed by an educational beer tasting led by **Scott Graham**, Executive Director of the **Michigan Brewers Guild**.

The **cost is \$80** per person which includes lunch and transportation by charter bus. **Pre-registration is required and space is limited to the first 56 registrants. Spots are filling fast** on the 2013 Hops Field Day and Tour on August 9th, so register soon! For more info or to register, go online to [hops.msu.edu](http://hops.msu.edu).

If you have any questions, contact **Rob Sirrione**, at the Leelanau MSU Extension office at 231-256-9888 or [msue45@msu.edu](mailto:msue45@msu.edu).

We thank our gracious program sponsors: Empire Hop Farm, Michigan Brewers Guild, Michigan Hop Alliance and Brewery Terra Firma.

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## **WEBSITES OF INTEREST**

Insect and disease predictive information is available at:

<http://enviroweather.msu.edu/homeMap.php>

60 Hour Forecast

<http://www.agweather.geo.msu.edu/agwx/forecasts/fcst.asp?fileid=fous46ktvc>

Information on cherries is available at the new cherry website:

<http://www.cherries.msu.edu/>

Fruit CAT Alert Reports have moved to MSU News

<http://news.msue.msu.edu>