

# **Northern Michigan FruitNet 2013**

## **Northwest Michigan Horticultural Research Center**

### Weekly Update

**August 13, 2013**

#### **CALENDAR OF EVENTS**

- |             |  |
|-------------|--|
| <b>8/15</b> | <b>2013 Soil Seminar – Educational Workshop</b><br>Sears, MI<br><b>See attached flyer for more details and registration form</b> |
| <b>8/15</b> | <b>Roadblocks to MAEAP Verification Workshop</b><br>Evans Brothers Fruit Company<br><b>See attached for more details</b>         |
| <b>8/22</b> | <b>NWMHRC Open House</b>   |
| <b>8/22</b> | <b>Parallel 45/MSUE Viticulture Update</b><br><br>New wine cultivars with Dr. Paolo Sabbatini<br>NWMHRC                          |
| <b>8/27</b> | <b>Peach and Plum Variety Showcase</b><br>SWMREC   |
| <b>9/14</b> | <b>Roadblocks to MAEAP Verification Workshop</b><br>Putney Beef and Fruit<br><b>See attached for more details</b>                |

## GROWING DEGREE DAY ACCUMULATIONS AS OF August 12 AT THE NWMHRC

Year	2013	2012	2011	2010	2009	2008	23yr. Avg.
<b>GDD42</b>	2466	3085	2556	2932	2214	2426	2545.7
<b>GDD50</b>	1630	2078	1699	1934	1335	1554	1649.9

### Growth Stages at NWMHRC (August 13 8:30 a.m.)

**Apple:** Red Delicious – 54mm

Gala – 49 mm

Yellow Delicious – 50 mm

**Pear:** Bartlett: 40 mm

**Grapes:** Green fruit

### Northwest Michigan Regional Report

N.L. Rothwell, NWMHRC

Tart cherry harvest is winding down in Northwest Michigan, and many growers will have a breather before apples and winegrapes.

The big push to move through tart cherry harvest is over, and most farms have finished or will soon finish harvest for 2013. Overall quality has been good, but there are reports of softer fruit this week compared to last week. The cool weather helped preserve quality, particularly compared to the hot and windy conditions we had just prior to harvest. Balaton harvest is also underway at this time. Apples are sizing, and many varieties are already showing nice color with our cool nights. Early varieties will start to be picked in the coming two weeks. As mentioned last week, many growers were pleased with their thinning efforts, but some hand thinning was still needed in some blocks. Growers are also starting to harvest peaches here in northwest Michigan.

Weather has been pleasant for the past week although cooler than typical August temperatures. Daytime temperatures are in the 70s and dropping back into the mid-50s at night. We had 0.34" of rainfall last Wednesday, 7 August. Overall conditions are still dry across the region. We have accumulated 2466GDD base 42 and 1630GDD base 50 so far this season.

**Apple.** As mentioned above, apples are looking good across the region. With the cool temperatures and lack of moisture, disease pressure has been low. Insect counts have also

been on the low side, potentially from the cooler nights and mornings that are slow to warm. We trapped an average of 1 **codling moth** (CM) per trap here at the NWMHRC, but growers have been catching higher numbers in their own orchards this week: 15-50+ moths per trap. Growers should be trapping in their own blocks to ensure a more accurate population size, and to be sure insecticide applications are properly timed. Last week, CM trap counts jumped up compared to the prior two weeks when trap counts were particularly low and many orchards trapped no CM. This week, trap counts are even higher, and these second generation moths are now mating and females are laying eggs. The CM model on Enviroweather will help growers make well timed insecticide applications targeting second generation larvae as we approach harvest: [http://enviroweather.msu.edu/run.php?stn=nwm&mod=f\\_cm](http://enviroweather.msu.edu/run.php?stn=nwm&mod=f_cm). Fruit needs to be protected from internally feeding pests through harvest: CM and **obliquebanded leafroller**. **Apple maggot** catch is also higher in our traps here at the NWMHRC where we caught five flies on one trap and three flies on another trap.

**Cherry.** With harvest wrapping up, some growers are making a post harvest application for **cherry fruit fly** and **cherry leaf spot** (CLS). However, with the cool temperatures, many growers are waiting to make their CLS application as the growth of this pathogen has been slow under these conditions. Many of our test trees in our efficacy trial look good for this late into the season. Growers should try and keep their leaves on through September to make sure trees go into winter with good carbohydrate reserves.

For insects, **American plum borer** moth catch is up again this week, and we trapped an average of 19 moths/trap. **Peachtree borer** catch is also up this week: we caught an average of 13 moths/trap. **Spotted wing drosophila** (SWD) continues to be caught in cherry orchards, and fruit needs to be protected through harvest. We caught more flies this week at the NWMHRC than in weeks past. We captured the following number of flies in five traps this week: 0, 0, 1, 7, and 15. We will check all of our 60+ traps in northwest Michigan and, we suspect that trap counts will be higher at these other sites as well. We are running efficacy tests on materials with three-day PHIs at this time, but the data will not be available in time for this season. Peach growers need to remember that SWD can infest peaches, at a much lower risk than raspberries or cherries, but peaches will need to be protected against SWD.

Lastly, **brown marmorated stink bugs** (BMSB) have been trapped in Michigan in riparian areas but NOT in commercial fruit fields, orchards, or vineyards. Overall, we have identified two locations with BMSB capture in low numbers in the southern part of the state. We are surveying all of the state tree fruit growing regions, 100+ traps, and no other catch has been reported at this time. These are very low catches, and this information is not meant to alarm growers but to let them know that BMSB catch has occurred in the state. Our extensive monitoring system will inform growers if catches increase or if further precautions to protect fruit are needed.

### **Wine Grapes**

Duke Elsner, Grand Traverse County MSUE

Some cultivars in the research vineyards are just at the beginning of veraison. We have seen what appears to be hail damage to leaves and berries in a few vineyards. Injured berries show a bruised or sunken area, splits in the skin and in some cases developing seeds are protruding

from the splits. These injured fruits will be susceptible to botrytis rot. Growers should check carefully for areas of vineyards which may have been hit by hail and apply treatments for botrytis. Vanguard, Endura, Scala SC, Luna Experience, Elevate, and Inspire Super have the highest efficacy ratings for botrytis bunch rots according to the E-154 Michigan Fruit Management Guide.

**Powdery mildew** has increased in incidence and severity during the past week, but there are still many vineyards with very little of this disease.

Cool weather conditions have greatly limited the adult feeding activity of **Japanese beetles**. Most of the large **hornworm caterpillars** are nearing the end of their leaf-feeding period of this year and their defoliation of vines will soon be over.

### **MICHIGAN SWD REPORT - August 13, 2013**

Spotted wing Drosophila (SWD) catches are increasing in fields and orchards where harvest is completed and insecticide residues are minimal.

#### **Nikki Rothwell, Karen Powers, and Statewide SWD Monitoring Team**

Adult spotted wing drosophila (SWD) catch continues as we move through the month of August, and we are catching an average of 23.6 flies per trap this week. Last week our trap average was 8.2 flies per trap. We take a weekly average from the 120 traps in the MSU Extension SWD Monitoring Network over the past week where 52% of the traps were positive for SWD, up from 42% last week. As we have seen for all of the growing season, the southwest part of the state continues to catch the highest numbers of flies than other regions of Michigan. However, trap counts are increasing in other parts of the state. At the Northwest Michigan Horticultural Research Center, we had trap counts that ranged from 0-15 per trap, and the double digit counts were much higher than the one or two flies we have caught in previous weeks. Southeast Michigan is also seeing more SWD in the past few weeks, and this week's catches ranged from 0-19 flies/trap. Traps in West Central Michigan are still catching relatively low numbers of SWD; most traps range from 0-2 flies/trap while one trap captured 7 flies this week.

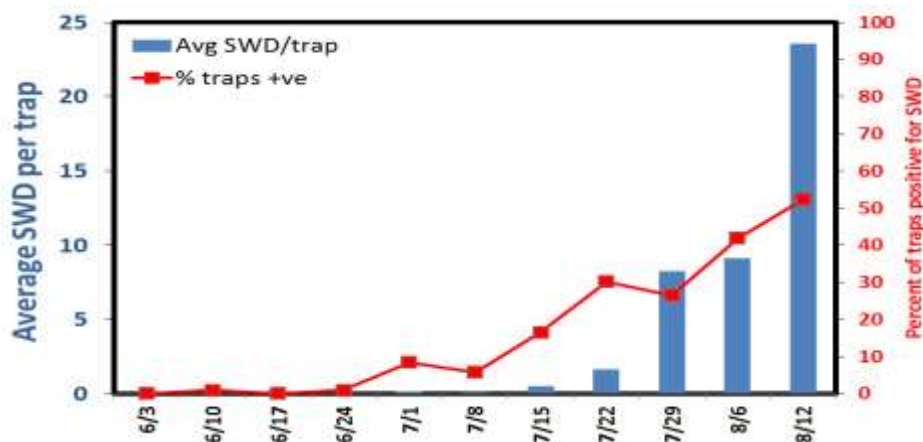
We anticipate trap counts to increase in all crops where harvest is finished, particularly in blocks where no more insecticide sprays will be applied for the duration of the season. As in past seasons, the trend has been to see SWD catch increase toward the end of the year due to populations building throughout the growing season. Overall counts are highest in small fruits where no recent insecticide sprays have been applied, and blocks that still are receiving insecticides are catching similar numbers compared to previous weeks.

In the past week, Berrien County continues to have the highest numbers of SWD in the state. Trap counts in Berrien County range from very few traps catching single digit flies to the majority

of traps capturing 75-150 flies/trap. One trap in cherries and raspberries caught 575 flies/trap. In Van Buren County, catches range from 4-15 flies per trap. As mentioned above, some trap counts increased dramatically in Allegan County, most likely as a result of harvested crops and no insecticide residue in those fields. Traps in Allegan are catching variable numbers of SWD: 1) traps capturing a low number of flies, 3-13 flies/trap, 2) traps capturing a moderate number of flies, 25-64 flies/trap, and 3) one trap that captured over 230 flies/trap. Monitoring of fruit using the salt test method is revealing *Drosophila* larvae in some raspberry and blueberry samples.

Fly counts in Ottawa County (mainly blueberry and raspberry) are also variable with some traps capturing 0 flies while others are catching 9-17 flies/trap. In Kent, Oceana, and Mason Counties, trap counts are catching 0-7 flies per trap and are the lowest catches in the state. In northwest Michigan, SWD have been captured in Leelanau, Antrim, Grand Traverse and Benzie counties, and numbers have increased in the past week. As mentioned above, more flies were captured at the NWMHRC on Monday 12 August than in previous weeks, and we anticipate our trap counts to also increase in our 60+ traps around northwest Michigan. Most of our traps were placed in cherry, and as a result, most of our SWD catches have been in tart and sweet cherry.

Harvest is winding down for many crops across the state, and as a result, growers can end their spray programs to protect ripening fruit. However, peach harvest is still ongoing, and although peaches are at lower risk of SWD infestation than other small fruits, peach growers should be diligent about protecting fruit. Most of the cherry harvest is complete, but growers in the far north or Balaton growers need to be sure to keep fruit protected through the harvest period. Growers should make their decisions to spray based on the presence of SWD flies and ripening or ripe fruit that are susceptible, plus the history of pest management inputs to each field. For more on SWD identification, monitoring, and management see our SWD website at [www.ipm.msu.edu/SWD.htm](http://www.ipm.msu.edu/SWD.htm)



## MANAGING MITES IN RASPBERRIES AND BLACKBERRIES

Monitor and manage mites to protect cane health and yield. Predatory mite populations may be down, providing less suppression of pest mites.

Posted on **August 6, 2013, MSUE News**, by **Rufus Isaacs**, Michigan State University Extension, Department of Entomology



Most caneberry growers in Michigan have had little need for mite management because of the abundance of predatory mites that keep pest mite populations in check. However, the current increased level of insecticide against spotted wing *Drosophila* is starting to cause some outbreaks of two-spotted spider mites, and these can compromise raspberry cane health and lead to reduced yield. This is especially likely inside high tunnels that tend to block the immigration of predatory mites.

[Two spotted spider mite](#) (TSSM) is the main species of pest mite encountered in Michigan caneberries, and this pest can quickly reach high abundance if the predator mites are not sufficiently abundant to suppress their populations. TSSM can be monitored through the season using a hand lens on 10-leaf samples taken weekly. Look on the underside of the leaves for the small spherical translucent eggs and the stationary/slow-moving immatures or adults of TSSM that have two dark spots in their bodies. In contrast, the predatory mites are light colored and they do not have the dots, and tend to move quickly across the leaf surface. These mites will require a hand lens to see, as the mites are less than a millimeter diameter. A general rule of thumb is that if the predator to pest mite populations are 1:10 or higher, then the predators should keep spider mites in check.

Treatment for two-spotted spider mite is considered unnecessary unless populations reach a threshold of one or more TSSM on 50 percent of the leaves. If predator mites are not present, the pest mite populations can far exceed this threshold. If that happens, growers will notice stippling damage on the leaves as the pest mite populations build. If it gets out of control, there can be severe leaf bronzing. Canes will typically recover from this damage eventually and put out new leaves, but the goal of mite management is preventing that situation from happening in the first place. This can be done through inundative release of predatory mites, but this

approach has not yet been well-tested in Michigan farms and the releases are best done when the TSSM population is low and has not yet reached damaging levels.

Maintaining some broad-leaf weed/ground cover can also provide some habitat for predator mites, and this can also provide food for them to persist on. Fields with clean cultivation and completely weed-free management are more likely to experience mite outbreaks.

If chemical control is needed, caneberry growers have a number of miticides registered for use against TSSM. These can be grouped into those products that have activity on the immature and adult mites (Acramite, Vendex, Kanemite, soaps) and those with activity primarily on eggs and immatures (Savey, Zeal). For growers producing fall red raspberries, it may be important to highlight that Savey can be used when honey bees are active, although we still recommend that applications are done in a way that does not lead to direct application to bees, and so early morning or late evening application is suggested. The insecticidal soaps such as M-Pede, Safer, and other formulations are potassium salts of fatty acids, with activity on eggs, immatures, and adult mites. They have 0 day PHI restrictions and 12 hour re-entry. Soap products require thorough coverage, including on the undersides of the leaves to be effective. Miticides for use in raspberry have 0-3 day preharvest intervals.

*Dr. Issacs' work is funded in part by [MSU's AgBioResearch](#).*

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).

## **ANNUAL NWMHRC OPEN HOUSE**

The Northwest Michigan Horticultural Research Center's (NWMHRC) annual open house is scheduled for Thursday, **August 22, 2013**. This year's event will include an equipment show, wine tasting and dinner, and the Leelanau Horticulture Society's annual meeting. In addition, we are hosting one of the Michigan State University's College of Agriculture and Natural Resources' (CANR) *What's Now? What's Next?* town hall-style meetings from 1:00-3:00 p.m. in the conference room of the NWMHRC. This special event is open to the public and is designed to facilitate communication between MSU supporters and the following MSU administrators: Dr. Fred Poston, Dean of CANR, Dr. Doug Buhler, Director of MSU AgBioResearch, Dr. Tom Coon, Director of MSU Extension, Dr. Kelly Millenbah, Associate Dean Academic and Student Affairs for CANR, and Mark Burnham, MSU Vice President for Governmental Affairs. Attendees are encouraged to provide input as to how the College of Agriculture and Natural Resources, MSU Extension, and AgBioResearch can continue to move Michigan forward through research, education, and outreach.

The grounds to the exhibit area will open at 1:00 p.m., and equipment vendors will be on site. Free educational wagon tours of the NWMHRC featuring MSU specialists will take place from 3:00-4:30. The tour will include winegrape and tree fruit specialists that will speak on a variety of topics: disease management, vine health, high density Montmorency plantings, cover crops, and Enviroweather. Growers are encouraged to meet with equipment vendors from 4:30-5:30, and the social hour will begin at 5:30 with dinner and the Leelanau Horticultural Society's annual meeting to follow at 6:15.

As in past years, the equipment show, social hour, and dinner is sponsored by the Leelanau Horticultural Society and Parallel 45 with the educational portion sponsored by AgBioResearch, MSU Extension, and the NW Michigan Horticultural Research Foundation. To reserve or purchase a dinner ticket, please call (231) 256-9888 or email Annette at [kleinsc7@msu.edu](mailto:kleinsc7@msu.edu) by **August 19, 2013**. The dinner will be catered by *Ethnic Garden Catering* and will feature locally produced food; cost for dinner tickets is \$10 per person.

For more information, contact the NW Michigan Horticultural Research Center at 231-946-1510 or Leelanau County MSU Extension at the number above. We hope to see many of you at these important events!

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## **WEBSITES OF INTEREST**

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://agbioresearch.msu.edu/nwmihort/faxnet.htm>

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 has moved to MSU News**     <http://news.msue.msu.edu>

**Tart Cherry Raw Product Reports – 2013**

<http://www.cherryboard.org/Week62013.pdf>