

Northern Michigan FruitNet 2013

Northwest Michigan Horticultural Research Center

Weekly Update

June 4, 2013

GROWING DEGREE DAY ACCUMULATIONS AS OF June 3rd AT THE NWMHRC

Year	2013	2012	2011	2010	2009	2008	23yr. Avg.
GDD42	651	990	592	983	608	590	695.6
GDD50	373	541	293	544	278	278	355.3

Growth Stages at NWMHRC (June 3, 4:00 p.m.)

Apple: Red Delicious – 8 mm

Gala – 8 mm

Yellow Delicious – 8 mm

Pear: Bartlett: 9 mm

Sweet Cherry: Hedelfingen: 11 mm

Napoleon: 10 mm

Gold: 10 mm

Tart Cherry: 9 mm

Balaton: 9 mm

Apricot: 17 mm

Grapes: 4-8 " shoots

NORTHWEST MICHIGAN REGIONAL REPORT

N.L. Rothwell, NWMHRC

Despite the up's and down's with temperatures, fruit development continues to move along but insect activity is slow; growers have also been on top of disease control with the wet conditions.

Temperature swings have been common during this spring season. Last Friday, daytime temperatures jumped up into the 80s, but by Sunday morning, we started the day with temperatures in the mid-40s. Fruit continues to develop slowly with these changing temperatures, but insect and disease development has also been slowed under these conditions. Fruit is starting to size in all tree fruits: apples are at 8mm while some varieties of sweet cherries are up to 11mm and apricots are approaching 20mm. We have accumulated 651GDD base 42 and 373GDD base 50, which are comparable to our 23-year average.

We also received some rainfall last week and into the weekend. On Tuesday, 28 May, the NW Station weather site recorded 0.26" of rain, and on 30 May, we had another 0.13". On Saturday and Sunday, we had over a half inch of rain over this two-day period. This long wetting period resulted in infections periods for the major tree fruit diseases. We also recorded freezing temperatures at two weather stations in the NW early in the morning of 3 June: East Leland site recorded four hours below freezing and the Bear Lake station had two hours just around 32 degrees F. The East Leland weather station also recorded 31.8 degrees F from 5-6am on 4 June. We have heard of isolated reports of hail from the 30 May rainfall event.

Apple. As most apples are entering the target zone for thinning, 10-15mm, growers have the carbohydrate model and weather conditions on their minds. Unfortunately, the weather forecast is

predicted cool temperatures for the remainder of the week, and the carbohydrate model is showing that trees will be in a surplus situation, which will make thinning more difficult. Most growers will likely wait for temperatures to warm this weekend to begin the thinning. If temperatures do not rise, growers will have to be more aggressive with thinning applications and combinations. The **apple scab** model shows that we are at 99% spore maturity here at the research station if we were at green tip in Macs on 30 April. We have 79% spore discharge and will need more warmth and rainfall to discharge the remainder of spores. Growers need to continue to cover for primary scab until we know that all spores have been discharged. We have observed some **powdery mildew** starting to show up in apple; growers need to protect against this disease as we have no fungicides that will eradicate this disease once it is established.

We have not observed any **fireblight** strikes in the region. Growers should remember that Kasumin cannot be used in late blooming or in orchards with tag bloom—the last day that Kasumin could be used was 31 May (last Friday), even in non-bearing orchards.

As mentioned above, insect development has been slow. We continue to catch **spotted tentiform leafminers** in fairly low numbers, and we have observed **obliquebanded leafroller** activity. We caught our first **codling moth** (CM) at the NW Station on Monday. These insects likely flew on Friday or Saturday evening with the warm nighttime temperatures. Other growers and scouts in the area started to catch CM last week. Setting a biofix may prove to be a challenge with these warm-cold temperatures swings. With the predicted cool stretch ahead of us, we will be hard pressed to set a biofix at the NW Station yesterday as we will likely catch no moths in this coming week. Growers should be trapping for CM in their own orchards because of the variable population sizes in different orchards across the region. **Plum curculio** (PC) was likely active last week when temperatures were warm and there was plenty of moisture to increase this insects' activity level; however, the cool weather will likely slow PC down again.

Cherry. We are starting to see spottiness on cherry leaves, but the verdict is out if these spots are due to spray injury, **bacterial canker** showing up from the cold, wet weather earlier this spring, or early forming **cherry leaf spot** lesions (CLS). We will be keeping an eye out for mycelial growth on these spots in coming weeks. Most growers are at first cover timing for disease control in tart cherry, and this timing is critical for **powdery mildew** control as well as continued coverage for CLS. For first cover, the new products (Luna Sensation and Merivon) might be a nice fit as they provide excellent control of both PM and CLS. These materials are rated excellent against CLS, and killing all fungi in the orchard early at this first cover timing is a first step achieving good season long control of CLS. Again, we do not have any eradicant materials for PM, so early season control is critical in preventing PM infection in cherry.

European brown rot has been particularly damaging in some orchards this season—in both Balaton and Montmorency blocks. We will be taking samples of orchards that have been hard hit by this disease, which is favored by cool and wet conditions. If growers would like their orchard sampled, please call the NW Station (231-946-1510). Once this pathogen has moved systemically into the spurs, there are no control options available.

With cherries out of or coming out of the shuck, this fruit needs to be protected against egg-laying female **plum curculio**. We have seen sweet cherry orchards with the moon-shaped egg laying scars. Growers should be checking hot spots for these scars. For growers using the P.I.T.S model in tart cherry (not applicable in sweet cherry), we have accumulated 205GDD since the biofix date of full bloom on 17 May. Remember that any eggs laid in tart cherry fruit prior to the 375GDD base 50 from Montmorency full bloom will cause the fruit and/or the larvae to fall off the tree, and insects laid at this early timing will not be present at harvest.

We are still finding **obliquebanded leafroller** larvae in cherry. However, the optimal timing for control this pest in sweet cherries has past; growers will have to wait until the summer generation larvae are present to control this population, which is at the pre-harvest timing. Growers that have had problems with this pest in the past and were not able to make a petal-fall application should be monitoring for OBLR prior to harvest to make sure there are no larvae in the tanks at harvest.

Grape Report - NW Michigan

Duke Elsner, Grand Traverse County MSUE

Remarkably, we had frost in some locations on the mornings of June 3rd and 4th. There was probably no damage to vineyards in good locations. Shoot growth had been rapid due to adequate rainfall and warm temperatures in recent weeks, but growth slowed due to a recent cooling trend. It is time for shoot thinning and suckering while shoots are still easily broken off from canes and trunks.

Although several rains and adequate temperatures have created several **powdery mildew** infection periods during the past two weeks, no symptoms have been seen to this point, even on un-sprayed vines. We rarely see **downy mildew** in NW Michigan, but this year's conditions have been more favorable than usual for this disease- it should be scouted for closely in susceptible cultivars. No significant insect activity has been found to this point. I have seen some insignificant injury from leaf feeding **weevils**. In the next two weeks **rose chafers** and **adult potato leafhoppers** are likely to arrive in vineyards. **Grape berry moths** have not yet been trapped in the area.

IMPORTANT IPM UPDATE TOMORROW: DR. SUNDIN WILL BE HERE!

As many of you know, for the 2013 season, we moved all IPM Updates to the NWMHRC due to limited staff. These updates start at 1pm and are worth 2 credits toward pesticide recertification. Tomorrow, **June 5**, Dr. George Sundin will be on hand to talk about first cover fungicide applications in cherry and apple scab control. Please take the time to come over tomorrow-- we hope to see you there.

WHY INTREPID HAS USE RESTRICTIONS AND ADVICE FOR COMPLYING

In some Michigan counties, growers need to know what wild plants grow in their area in order to use Intrepid insecticide.

Posted on **May 29, 2013, MSUE News**, by **Mark Longstroth**, Michigan State University Extension

Intrepid is an insecticide labeled for use in many fruit, vegetable and field crops in Michigan. Intrepid is an insect growth regulator and a reduced-risk product. This means it poses less of an environmental risk than broad spectrum insecticides. Intrepid is very effective against moth larvae. It must be ingested (eaten) to be effective. It causes the affected larvae to try and molt. This can be fatal if the caterpillar is not ready to molt.

The Intrepid label has an Endangered Species section that states that for users in Allegan, Monroe, Montcalm, Muskegon, Newaygo and Oceana counties, you must follow the "[Endanger Species Protection Bulletin](#)" for the county where you are applying Intrepid and for the month you are applying the material. With Intrepid, the [Endangered Species Protection Bulletin](#) is for the Karner Blue Butterfly. The Karner Blue is found around the Great Lakes in Indiana, Michigan, Minnesota, New York, Ohio and Wisconsin. The restriction states, "Do not apply this product within one mile of sandy habitats that support wild lupine plants." [Michigan State University Extension](#) recommends that if you farm in these counties, you go to the [Endangered Species Protection Bulletin](#) website and print off the bulletin for your county for the month that you plan to apply Intrepid. You need to learn to identify wild lupine and the dry sandy areas where it grows. These bulletins are part of pesticide label and must be followed to legally apply Intrepid.



A wild lupine in Idaho. Photo credit: Mark Longstroth, MSU Extension

When I share this with growers, many give me a puzzled look and ask, “What is a lupine?” They have never seen or heard of it before. Lupines are a large genus in the pea family with many species in North America. Lupines are distinct and easily recognized. They have distinct palmate leaves and the flowers are born on upright spikes. The flowers are easily recognized as pea flowers. Flower color is violet, blue or even pink or white and the fruit are short, fuzzy pea pods.

Lupinus perennis L. is the lupine that is native to Michigan. Michigan’s wild lupines are found primarily on dry, sandy soils in open or partially shaded habitats. Many of the areas where the lupine grows are oak savanna and pine or oak barrens. Lupines may also grow in power line right-of-ways, and other open areas that are maintained as early successional landscapes by suppressing the growth of shrubs and trees. Without natural or artificial disturbance, savanna and barrens communities develop into shrub or forest communities. In shaded habitat, lupines may survive, but with poor vigor and without flowering.

So why are we protecting a plant if we are worried about a butterfly? The Karner Blue butterfly larvae feed on the lupine and nothing else. Counties that do not have the restriction are counties where the lupine has not been found. If you do have sandy habitats that support wild lupine within one mile of your fields, you should choose another insect control option. Intrepid is the only product with this restriction, and the similar product Confirm has no such restrictions.

POTATO LEAFHOPPERS LIKELY TO ARRIVE IN CHESTNUT ORCHARDS SOON

With the stormy weather the last few days and more in the forecast, potato leafhoppers are likely to arrive in Michigan soon. Chestnut growers should be scouting to detect their arrival.

Posted on **May 31, 2013, MSUE News**, by **Erin Lizotte**, Michigan State University Extension

It’s that time of the year! Potato leafhoppers are arriving around Michigan with the first grower reporting potato leafhoppers in an orchard this afternoon, May 31, 2013. Like many plants, [chestnuts](#) are sensitive to the saliva of potato leafhoppers that is injected by the insect while

feeding. Damage to leaf tissue can cause reduced photosynthesis, which can impact production and quality and damage the tree.

At this point in the season, scouting should be performed following storm systems originating in the southern United States. Early detection is important to prevent injury. For every acre of orchard, growers should select five trees to examine and inspect the leaves on three shoots per tree (a total of 15 shoots per acre). The easiest way to observe potato leafhoppers is by flipping the shoots or leaves over and looking for adults and nymphs on the underside of leaves. Pay special attention to succulent new leaves on the terminals of branches. Growers may also hang yellow sticky traps in the orchard to catch potato leafhoppers. Be sure to hang traps on both the edge and interior of the block.

For more information on how to identify potato leafhoppers and symptoms of damage, as well as management recommendations, please refer to the Michigan State University Extension article "[Potato leafhopper management in chestnuts.](#)"



Left, A cupped leaf with necrotic edges caused by potato leafhopper feeding. Photo credit: Erin Lizotte, MSU Extension. Right, An adult potato leafhopper. Photo credit: Mario Mandujano, MSU

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).

2013 INTERNATIONAL FRUIT TREE ASSOCIATION'S SUMMER STUDY TOUR

The 2013 International Fruit Tree Association's Summer Study Tour will be visiting Pennsylvania this July 16 and 17 with the theme of 'Heritage and Innovation'. In an attempt to make it more feasible for young specialty crop farmers to attend, generous sponsorship has made a limited number of scholarships available.

If you or someone you know is interested in applying for a scholarship to attend the IFTA Study Tour in Gettysburg, please complete the [attached form](#) and return it to me by email cyl1@psu.edu or fax 717-334-0166. The contact information is also listed at the bottom of the application. The registration **deadline** is Monday, **June 10, 2013**.

Mentors, feel free to distribute this to your young grower organizations.

Hope to see you in Adams County, PA this July!

Catherine Y. Lara
Specialty Crop Innovations Program Manager
Young Grower Alliance Coordinator

Penn State Extension
Adams County
670 Old Harrisburg Road, Suite 204
Gettysburg, PA 17325

Generally I'm in the office: Mondays-Thursdays
Phone: 717-334-6271, ext. 315
Email: cyl1@psu.edu
Web: extension.psu.edu

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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>