

Northern Michigan FruitNet 2014

Northwest Michigan Horticultural Research Center

Weekly Update

June 24, 2014

CALENDAR OF EVENTS

6/24	IPM Update Leelanau Co.– Bardenhagen Farm
6/24	IPM Update Grand Traverse Co. – Wunsch Farm
6/25	MFFPA Guesstimate
7/1	CIAB Grower Meeting Peninsula Township Hall 9:00 – 11:00 a.m.
7/1	CIAB Grower Meeting Milton Township Hall Kewadin, MI 1:00 – 3:00 p.m.
7/1	CIAB Grower Meeting NWMHRC 7:00 – 9:00 p.m.
7/2	IPM Updates End
7/3	RidgeFest 2014
7/10	MSU Clarksville Research Center Annual Tree Fruit Research Showcase Field Day
7/12	Household Hazardous Waste Leelanau County Government Center
7/22-24	35TH Annual Ag Expo Michigan State University
9/4	NWMHRC Open House – 35th Anniversary

GROWING DEGREE DAY ACCUMULATIONS AS OF June 23 AT THE NWMHRC

Year	2014	2013	2012	2011	2010	2009	24 Yr. Avg.
GDD42	1040	1078	1535	1047	1432	1021	1156.9
GDD50	600	643	928	590	834	542	663.3

Growth Stages at NWMHRC (June 23, 2014, 10:30 a.m.)

Apple: Red Delicious – 22 mm fruit

Gala – 15 mm fruit

Yellow Delicious – 22 mm fruit

Pear: Bartlett: 13 mm fruit

Sweet Cherry: Hedelfingen: 14 mm fruit

Napoleon: 14 mm fruit

Gold: 13 mm fruit

Tart Cherry: 12 mm fruit

Balaton: 12 mm fruit

Apricot: 27 mm fruit

Grapes: 10-16" shoots

NORTHWEST MICHIGAN REGIONAL REPORT

E. Pochubay, N. Rothwell, and D. Elsner, Extension Educators, MSU

Several days with rain in the last week have sized fruit well and posed challenges for maintaining good spray coverage.

Weather Report. This past week has been much like the rest of the season with some warmer days and some cooler days. This week has been marked by more rainfall than in previous weeks. However, growers have been in the orchards a lot this season trying to keep new tissue covered against fungal pathogens. Last week, the high daytime temperature was on Monday, 16 June when we reached almost 84 degrees F. By Friday, we dropped down to a high of 60 degrees F—a swing of 24 degrees. We have accumulated 1040GDD base 42 and 600GDD base 50. We are still about one week behind our average. As mentioned, we had four days of rain last week. On 16 June, we had 0.07" of rain, 0.38" on 17 June, and 0.13" on 18 June. It rained again on 20 June, and we recorded just under a half inch of rain that day. Rainfall has been variable across the region. Rain was in the forecast for the start of this week as well, and we only received 0.02" of rainfall yesterday. We have a chance of rain today and into tomorrow. Conditions between the rains have been humid, and there have been some infection periods for diseases.

Crop Report. Fruit is sizing well across the region, particularly with last week's rainfall. Early varieties of sweet cherries are beginning to color, and birds are already evident in these blocks. The sweet cherry

crop continues to look good, and the rain will help with size in orchards that have a heavy set. The tart cherry crop is variable across the region. Some orchards have a fairly large crop while others are much lighter. Blocks that had a heavy set in 2013 are considerably lighter this season. There also appears to be variability within a block, and some trees have a big crop but neighboring trees are light. Estimates are between 75-90% of the 2013 crop. Overall estimates have gotten lighter in the past few weeks. The official guesstimate will be held in Grand Rapids on 25 June.

Some growers are still wrapping up thinning efforts for 2014. Many orchards to the south are finished, and growers are feeling confident they did a decent job of thinning. However, some orchards to the north are still in need of more thinning. The phenological difference between northern and southern regions of this part of the state seems to quite spread out this season. We anticipate harvest will be long for all tree fruits due to this spread.

Strawberry harvest has begun in Manistee and Antrim Counties. Growers expect to start picking strawberries later this week in Leelanau.

Pest Report. Variable rainfall in the last week has posed challenges for maintaining good coverage to protect leaves and developing fruit from diseases and insect pests. There were rain showers on Friday 20 June, and average temperatures were cool in the mid to upper 50s throughout the northwest region. The duration of the rain event was not long in most areas and because temperatures were cool, there were few disease infection periods in most areas on Friday. However, this rain event was longer in Bear Lake and Benzonia, and the **cherry leaf spot** model on Enviro-weather reported high CLS infection periods for both locations. Low CLS infections were reported for East Leland and the NWMHRC on Friday. We received very little rain Sunday 22 June and Monday 23 June and once again the event was short and did not result in CLS infection periods in most areas. However, the CLS model for Bear Lake and Benzonia is currently reporting low CLS infections triggered by rain on Monday.

According to the **apple scab** model on Enviro-weather, Friday 20 June rain also resulted in heavy scab infection periods in Bear Lake and Benzonia; no apple scab infection periods were recorded for other locations in our region. Bear Lake and Benzonia are also currently in the midst of a light apple scab infection period that initiated during rain on Monday. Apple scab spores are still discharging at our monitoring site in Leelanau County. We counted an average of 12.5 spores per spore rod that were discharged during Friday's rain and the apple scab model on Enviro-weather is reporting that 93% of spores have been discharged. We are not calling the end of primary scab infection at this time. However, growers that have had little to no scab in their orchards for the past few seasons are likely finished with the primary scab infection period. We will continue to monitor scab spores following rain this week if the rain predicted for Tuesday 24 June and Wednesday 25 June is correct. We hope to call the end of primary this week. Other fruit growing regions of the state have called the end of primary apple scab.

In general, orchards are looking pretty clean in terms of disease symptoms. We have received a few reports of isolated incidences of **powdery mildew** on tart cherry, and some **cherry leaf spot** lesions are beginning to appear on leaves. The weather conditions are worrisome for **American brown rot** infection, and growers should be diligent about controlling this disease if we continue to have warm and wet conditions. ABR can infect fruit that has been injured (bird pecks, canker, etc.). Reports of apple scab severity and incidence have also been very low.

Codling moth (CM) numbers are on the rise here at the station. This week we found an average of 6.5 moths/trap; in the previous two weeks there was only one moth per trap. Growers who already set biofix and reached ~100GDD were spraying Rimon last week to target CM eggs. Some growers reapplied sprays following rain last week. In some orchards where CM biofix was set earlier, the 250GDD timing for

controlling CM larvae may be approaching. We did not find oriental fruit moth in traps at the NWMHRC this week.

Adult moths of **obliquebanded leafroller** (OBLR) are emerging and were found in traps in apples (7.5 moths/trap) and cherries (5 moths/trap) at the station. Although we are finding OBLR in our traps, this pest has a broad host range which makes it difficult to interpret trap catch numbers because we cannot be certain that OBLR are infesting fruit trees or if they are coming from a nearby host plant. Nonetheless, MSU has developed some rules of thumb for OBLR trap catch to determine biofix: a consistent catch of 20 or more moths per trap for two to three weeks usually indicates that OBLR may be a problem, and low-catch of less than 20 moths per flight period generally indicates a non-problematic pest density.

Growers are continuing to protect developing fruit from **plum curculio** (PC). Fruit damaged by PC and other pests and non-pollinated fruit have started dropping.

In cherries, **borers** are still active and the numbers of moths captured in traps are declining. We found all three borer species in traps at NWMHRC this week: **American plum borer** (6.7 moths/ trap), lesser peach tree borer (13.7 moths/trap), and greater peach tree borer (1.7 moths/trap).

Cherry fruit fly adults are emerging and were observed on leaves at the NWMHRC late last week. We have not detected any CFF on traps at this time. Cherries are sizing and some early ripening varieties began taking on color last week. Cherries are likely not susceptible to CFF this early, but as the fruit ripen and soften they will be susceptible to CFF damage in the near future. Birds have moved into early ripening sweet cherry blocks.

Spotted wing *Drosophila* have not been detected in our region, but were found in southwest Michigan last week.

Rose chafers began emerging throughout the region last week and are mating. At the station we have received several calls regarding this pest. Although there are insecticides that provide good control of the beetles, rose chafers are highly mobile and can re-infest treated areas quickly.

Wine Grapes

Some delayed reactions to winter cold injury are now evident- shoots that started out well but have now failed to thrive. For example, in a Riesling block at the Research Center, healthy shoots on the fruiting wire are well over a foot in length and continuing to show vigorous growth at the tip; affected shoots have stopped growing at 4-5 inches. The problem is likely cane, cordon or trunk injury resulting in reduced ability to support shoot growth. The shoots having problems now will possibly die as the season progresses, or at best the fruit they bear will lag behind in development.

Many varieties are approaching bloom. The next 3-4 weeks is a very important time for protecting fruit **from powdery mildew, downy mildew and black rot**, depending on the susceptibility of particular varieties. In vineyards where a lot of basal shoots have been retained to promote vine recovery from cold injury, there is a very dense canopy of leaves low on the vines. This will result in reduced air flow, high humidity and slow drying of foliage, encouraging fungal disease. This situation also makes it difficult to achieve good pesticide penetration into the canopy. Adjustments to nozzle orientation, spray volume and/or sprayer speed may be needed to make efficacious pesticide applications under these conditions.

Rose chafer adults are now active in vineyards, with relatively high populations in some areas. **Potato leafhoppers** have been found in some downstate sites, so they may appear in local vineyards soon. There have been a few reports of **grape tumid galls**, which are red swellings on the leaves, stems or

tendrils caused by the presence of tiny gall fly larvae. This is a spotty problem that seldom requires treatment.

Saskatoons

Saskatoons are in the green berry growth stage, with some red starting to show on the most advanced fruit. **Apple curculio** adults and larvae are feeding on fruit, along with **saskatoon sawfly larvae**. Leaf-curling aphid activity is continuing, but the level of infestation seems lower than the previous year. Several insecticide choices are available, but Sevin should not be used now as it will cause fruit drop.

Saskatoon-juniper rust infections of fruit are now evident, and protecting fruit from further infection is very important at this time. As ripening and harvest is approaching, the fungicide choices now need to have a short pre-harvest interval, such as Abound (0 days), Pristine (0 days) and Quash (7 days).

FIRST SPOTTED WING DROSOPHILA FLIES OF 2014 DETECTED IN MSU EXTENSION MONITORING NETWORK

Spotted wing Drosophila (SWD) traps should be deployed already and growers need to protect ripening or ripe berries against this pest.

Posted on **June 23, 2014, MSUE News**, by **Rufus Isaacs**, and Julianna Wilson, Michigan State University Extension, Department of Entomology

Monitoring traps for spotted wing Drosophila (SWD) that were checked during the week of June 15 have revealed the first 2014 activity of this pest in Michigan. These traps were checked the week before and none were found, but over the past week traps placed at the edge of berry crop plantings and in adjacent wild habitat have detected activity of male and female SWD. This timing of first capture is a few weeks later than 2012 and 2013, suggesting that the harsh winter slowed down the spring development of SWD. However, at some of the sites where SWD were trapped, the flies are somewhat more abundant than first captures in previous years.

From a total of 85 traps checked from 23 fields, five male and 21 female SWD were found. The captures were widely distributed across Southwest Michigan from Berrien, Van Buren, Allegan and Ottawa counties. During this first week, SWD have been caught in traps baited with yeast-sugar mix, with the new Trece SWD lures over apple cider vinegar, and also those baited with the Trece lures over soapy water.

With one week of captures, it is difficult to say much about trends in the catches, but this first activity indicates that scouts, crop consultants and growers should be on alert of this pest as their susceptible fruit crops start to ripen. SWD can infest berries only when they are ripening or ripe, so currently ripe strawberry fields and early summer raspberries should be a focus of SWD monitoring and management efforts. A simple salt solution of 1 cup of salt per gallon of water can be used to assess fruit for larval infestation. As blueberries, cherries, and other susceptible crops ripen, growers will need to make management decisions based on fly activity and crop ripeness stage. Information on SWD monitoring and management can be found at MSU's central website at www.ipm.msu.edu/SWD.htm. This site also contains an [updated SWD management guide for blueberry growers](#).

Now that first catches have been made, the [Michigan State University Extension](#) fruit team will begin a weekly report on SWD activity from around the state based on the network of traps and sampling of fruit at cooperating farms. These reports will be released on Tuesdays through the summer as part of the MSU Extension Fruit email digests. You can sign up for the Fruit digest for free at the [MSU Extension Fruit & Nuts webpage](#). Look for the envelope icon that says "Sign me up for MSUE News."

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

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USE SUMMER NAA TO ENHANCE RETURN BLOOM ON APPLE VARIETIES

Follow these guidelines when applying NAA on apple varieties to improve return bloom.

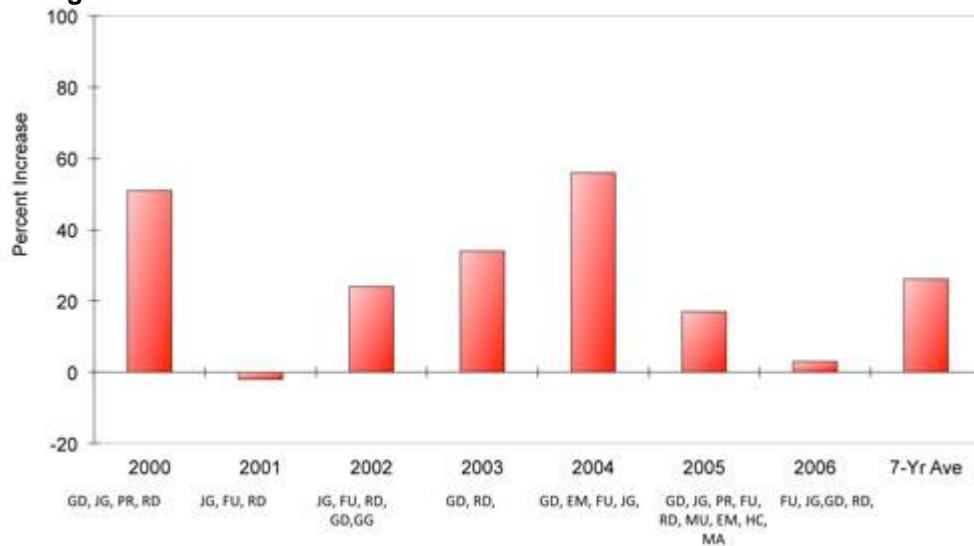
Posted on **June 18, 2014, MSUE News**, by [Phil Schwallier](#), and Amy Irish-Brown, Michigan State University Extension

Every year it can be desirable to enhance return bloom on apple varieties that tend to be biennial. This is especially important on trees that have a heavy crop load. Most years, treatments of summer NAA applied at five, seven and nine weeks after bloom will increase return bloom even on varieties that have heavy crop loads and tend to have poor return bloom. This timing is made after the thinning window and any potential thinning from NAA has passed. Fruits are often 1 inch in diameter and won't respond to any NAA thinning action like smaller fruit (10 millimeters). Flower bud initiation has already begun, but can be enhanced by NAA treatments during the next 30 days after the thinning period ends.

Summer Ethrel can also enhance return bloom by treatments of 200 to 600 ppm made at the same timing of five, seven and nine weeks after bloom. However, summer Ethrel can thin 1-inch diameter fruit as well as advance maturity of early maturing varieties.

A study was initiated in 2000 on biennial varieties. These varieties (Goldens, Jonagold, Paula Red, Red Delicious, Fuji, Gingergold and Empire) were treated with three applications of NAA at 5 ppm (Fruitone N). Over seven years on average, return bloom was improved by 23 percent and some years as much as 55 percent. These trees were selected because they had heavy crop loads and were not thinned chemically (Fig. 1).

Figure 1. NAA return bloom study 2000 to 2006 percent increase in return bloom/UTC near Grand Rapids, Michigan



Summer NAA

Apply 5 ppm (2 ounces per 100 Fruitone N) of NAA starting five weeks after full bloom and apply two additional spray treatments at seven and nine weeks after full bloom. The rate of NAA applied per acre should be adjusted to tree row volume (TRV) levels. The applications can be concentrated, but treatments will benefit from increased water amounts. Try to not concentrate water amounts greater than four times. The NAA can be added right to the cover sprays during that time period. Some years, these treatments do not perform well, especially during droughty years.

Varieties that have a moderate to high biennial bearing tendency should be considered for bloom enhancement sprays (Table 1). Growers have reported to [Michigan State University Extension](#) that they have the best results by treating with summer NAA every year, regardless of crop load. Summer NAA treatments will not cause any adverse effects to the trees or crop. Treatments during extremely hot temperatures – maximum temperatures above 90 degrees Fahrenheit – should be avoided. If surfactant or oil is included with the application, consider reducing the NAA amount by one-third. Fruitone L has been reported to be slightly more effective than Fruitone N. Follow the guidelines listed in the rates calculations section below.

Table 1. Apple variety biennial tendency

Variety	Biennial bearing tendency
Cameo	Moderate
Cortland	Low
Empire	Moderate
Fuji	High
Gala	Low
Golden Delicious	High

Honeycrisp	High
Jonagold	High
Jonathan	Low
Macoun	Moderate
McIntosh	Low
Mutsu	High
Northern Spy	Moderate
Paula Red	Moderate
Red Delicious	High
Rome	Low

Rate calculations

- The target rate per acre is 8 ounces Fruitone N (5 ppm) on full size trees (100 percent TRV).
- Determine the target blocks TRV. Example: 75 percent TRV
- Adjust the NAA rate per acre by the TRV. Example: $0.75 \times 8 \text{ ounces} = 6 \text{ ounces per acre}$
- Apply at 4X water concentration or less.
- If surfactants or oil is included, reduce NAA by one-third.
- Avoid applications during extreme hot temperatures.

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TRAINING APPLE TREES IN TALL SPINDLE DURING DEVELOPING YEARS

Train trees in a timely manner in the initial years and reap the rewards in subsequent years.

Posted on **June 19, 2014, MSUE News**, by **Ron Perry**, Michigan State University Extension, Department of Horticulture

Regardless of the training system or spacing, growers developing young orchards need to train trees in a timely manner in the developing years to reap the rewards in following years. This practice is most critical for those developing trees in high density orchards where tree spacing is tight. Following these principles is challenging given the competition for resources in a commercial orchard. The goal in the high density orchard is to get trees in a state of balance, or equilibrium, regarding vegetative and reproductive growth. Only the grower can determine the level of balance and how to achieve this goal.

Variety, rootstock vigor, soil and nutritional status all contribute to determining how to handle trees. Many growers are, for the first time, developing tall spindle trees on dwarfing rootstocks with tree spacings of 3 x 11 or 12 feet. The key to success of these orchards is to retain weak branching and recycle vigorous branches. Another key is branch bending to slow down linear growth and influencing newly formed axillary buds into becoming reproductive (formation of fruit spurs).

Removing competitive laterals in upper portion of the leader

This is often over-looked in the early part of the season, but is important in keeping the upper portion of the leader growing and maintaining strength and vigor. One key to productivity of the tall spindle is approaching heights of 12-13 feet by the fourth growing season. Attaining this tree-height goal achieves the high productivity needed per acre to help cover the expenses of establishment as soon as possible. In many Southern Michigan regions, this is naturally attainable with only pinching a couple laterals once they have grown about 6 inches in length. If laterals are allowed to compete, reaching target tree heights is more challenging. For orchards in Northern Michigan, which often are established on coarse soils, removing competing laterals is extremely critical to maintaining leader dominance and vigor. In many cases in this region, pinching back several laterals 8-12 inches below leader or apical bud may be necessary (Photos 1-2).



Photos 1-2. Before (left) and after (right) removing competing laterals on tall spindle apple trees.

Bending branches below the horizontal

In Michigan, the late June through late July period becomes critical for flower bud initiation of axillary buds in apples, perhaps a week later in this cooler than normal year. The process is followed by flower bud differentiation which occurs through the remaining part of the season where floral primordia begin to actually develop and differentiate. We know from past research that flower bud initiation can be influenced by training and management practices. Most importantly, we know that bending branches down below the horizontal not only slows branch development down, but also encourages flower bud initiation. This is most important when trees are planted at 3-foot spacings.

Branches can be weighted down or held down with string, rubber bands or floral wire (18-20 gauges). String can be time-consuming. I prefer either rubber bands or floral wire (Photos 3-5). My only issue with floral wire is that you will need to be diligent in following up later in the season to move wires to upper portions and avoid girdling. Since I often don't have the labor, I prefer the ultraviolet light-resistant rubber bands sold by orchard supply vendors.



Photos 3-4. Before (left) and after (right) bending strong branches down using rubber bands; mid-section of leader of 2-year-old tall spindle trees (Wunsch Farm, Old Mission Peninsula, Traverse City, MI).



Photo 5. After training 2-year-old tall spindle tree; note branch bent down below horizontal in lower tier.

In the tall spindle, the goal is to bend as many branches down below horizontal as possible, concentrating on those which are more vertical and strong. In the vertical axe where trees are planted further apart (5 x 15 feet), the lower 4-5 feet can remain horizontal while the upper portions of the leaders are bent down as in the tall spindle.

I know that many growers fear the training work, but it pays off and lasts the initial four to five years. Once trees attain maturation, you have done the job of achieving the necessary goal of “balance” (Photo 6). As I often tell my students, training branches in the initial years rather than pruning strong branches during the winter avoids wasting resources.



Photo 6. Achieving a tree in balance between fruit and branch development (third growing season).

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

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DOWNY MILDREW PRESSURE IS HIGH IN NORTHERN MICHIGAN HOPYARDS

With ample rain, warm temperatures and high humidity, hop growers should be diligent in applying protectant fungicide applications against downy mildew.

Posted on **June 19, 2014, MSUE News**, by [Erin Lizotte](#), Michigan State University Extension

Weather conditions across Michigan have been conducive to downy mildew development in [hops](#). Downy mildew infections in northern hopyards have already begun the secondary reproductive cycle which produces the spores that spread this difficult disease. The causal agent of downy mildew, *Pseudoperonospora humuli*, overwinters in dormant buds or crowns, moving into buds during early spring, and then into the tissue of the basal spikes as shoots expand. The pathogen produces copious spores on the underside of infected leaves. Infection is favored by mild to warm temperatures of 60 to 70 degrees Fahrenheit when free moisture is present for at least 1.5 hours, although leaf infection can occur at temperatures as low as 41 F when wetness persists for 24 hours or longer.



Front and back of relatively new downy mildew infection on hops, taken June 18, 2014. Photo credit: Erin Lizotte, MSU Extension



Front and back of a hop leaf with an advanced and sporulating downy mildew infection. Note the gray, tufted spore masses on the underside of the leaf, taken June 18, 2014. Photo credit: Erin Lizotte, MSU Extension

Copper, boscalid, pyraclostrobin, cymoxanil, fosetyl-Al, metalaxyl, phosphorous acids, dimethomorph, mandipropamid, mefenoxam and a number of biopesticides have varying activity against downy mildew. Cymoxanil, dimethomorph and mefenoxam have performed best in the Pacific Northwest, but have not been evaluated in Michigan.

For more information on management strategies for downy mildew, please refer to the [Michigan State University Extension](#) article, "[Downy mildew of hops already reported in Michigan](#)." For a list of products containing these active ingredients, refer to the "[Pesticides registered for use on hops in Michigan, 2014](#)" resource.

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MSU CLARKSVILLE RESEARCH CENTER (CRC) WILL BE HOLDING ITS 2014 TREE FRUIT RESEARCH SHOWCASE

The MSU Clarksville Research Center (CRC) will be holding its 2014 tree fruit research showcase and field day on **July 10** from **9AM to 5PM**. Come join us to see the latest, cutting edge research from the MSU tree fruit team. Phil Schwallier and Dr. Ron Perry will discuss and demonstrate hedging systems for high density fruit and discuss new thinners. Dr. Amy Iezzoni will show and discuss some of the latest tart cherry selections being developed and tested at CRC including selections resistant to leaf spot and the strategy for breeding for Armillaria resistance. Dr. Greg Lang will showcase high density training systems for sweet cherry and other stone fruits and the use of protective covering systems, such as high tunnels, for fruit production. Drs. Ron Perry, Matt Grieshop and others will demonstrate Solid Set Canopy Delivery Systems in apples and cherries and highlight the innovative applications of these systems for pest management and microclimate modification. Lunch will be provided and the event is free to the public. More information, an event flyer and a (free) registration form will be released in mid-June.

Movie at the State Theater

Monday, June 30, 2014 • 6:00pm



Oryana is sponsoring a film at 6 p.m. at the State Theater by Swiss filmmaker Marcus Imhoof, “More Than Honey.” This film is about the relationship between humans and honeybees, about nature and our future and was nominated for an Oscar for Best Foreign Language Film at the 86th Academy Awards.

(Note: This film is showing at the State Theater, 233 E Front Street, Traverse City. Tickets are \$8.50 for Adults, \$7.50 for Seniors 65 and Over, and \$6.50 Students and Kids 12 and Under.)

TREE FRUIT IPM UPDATE SERIES – 2014

Emily Pochubay and Nikki Rothwell
Michigan State University Extension

After a one-year break, Michigan State University is back to offering on-farm IPM workshops in Leelanau, Grand Traverse, Antrim, and Benzie counties in northwest Michigan for the 2014 season. Workshops begin the first week of May in hopes of providing commercial tree fruit growers with a review of good practices for developing sustainable pest management programs as well as key information on early

season disease protection. Workshops through the first week of July will highlight management of the season's current potential pest challenges dictated by weather and pest biology. Attendees are encouraged to bring examples of pests and damage found on the farm to these workshops for identification and discussion. These IPM workshops are free and do not require registration. Certified crop advisor continued education credits and pesticide recertification credits will be available. Tree fruit growers are welcome to attend meetings at any location and time that is most convenient. We are looking forward to interacting with you all at these meetings. For more information, please contact Emily Pochubay at pochubay@msu.edu or (231) 946-1510.

IPM Update Locations

Leelanau County

Location: Jim and Jan Bardenhagen, 7881 Pertner Rd, Suttons Bay
Dates: May: 6, 13, 20, 27; June: 3, 10, 17, 24; July: 1
Time: 12PM – 2PM

Grand Traverse County

Location: Wunsch Farms, Phelps Road Packing Shed, Old Mission
Dates: May: 6, 13, 20, 27; June: 3, 10, 17, 24; July: 1
Time: 3PM – 5PM

Antrim County

Location: Jack White Farms, 10877 US-31, Williamsburg
(south of Elk Rapids on the southeast side of US-31)
May: 7, 21; June: 4, 18; July: 2
Time: 10AM – 12PM

Benzie County

Location: Blaine Christian Church
May: 7, 21; June: 4, 18; July: 2
Time: 2PM – 4PM

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WEB SITES 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/>

Information on apples:

<http://apples.msu.edu/>

Fruit CAT Alert Reports has moved to MSU News

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

NW Carb 2014 6-23-14

