

Northern Michigan FruitNet 2017 Northwest Michigan Horticultural Research Center

Weekly Update

FruitNet Report – April 11, 2017

CALENDAR OF EVENTS

- 4/17** **Spring Sweet Cherry Pruning
Demonstration**
Kings Orchards in Central Lake, MI - 10AM
Lutz Farms, Kaleva, MI - 2PM
- 4/18** **IPM Kickoff**
NWMHRC
- 5/19** **Save the Date: Apple Thinning Meeting**
NWMHRC, 10 – 1 PM, **RSVP by May 17**
More information to come!

What's New?

- **Spring Sweet Cherry Pruning Demonstration – UPDATE**
- **Pruning Workshop: *for Home Gardeners***

Spring Sweet Cherry Pruning Demonstration - UPDATE

April 17, 2017

The NWMHRC will host Drs. Greg Lang and Todd Einhorn for a high-density sweet cherry pruning demonstration on April 17, 2017 at Kings Orchards in Central Lake, MI, at 10AM and Lutz Farms in Kaleva, MI at 2PM.

10AM - Kings Orchard, 5200 Church Rd, Central Lake, MI 49622

2PM - Lutz Farms, 8328 8 Mile Road, Kaleva, MI 94645

At the demonstration at Kings Orchard, we will visit a new planting of vigorous trees and will discuss pruning strategies to manage excessive growth. Canopy management and renewal pruning will be the topics of discussion in a mixed variety block of Kings' bearing trees. Finally, with regard to spotted wing drosophila management in sweets, this demonstration also offers the opportunity for growers to visit the Kings' unique block that was planted specifically with pre-harvest pest management spray strategies in mind.

At the demonstration at Lutz's farm, we will visit their 2015 planting with rootstock Gisela 12. Their varieties include Benton, Regina, and Sam. Trees are planted with 15 feet between rows x 5.5ft between trees. Trees are trained to a TSA.

Sweet cherry growers won't want to miss this opportunity to visit this cutting-edge operation in northwest Michigan. Stay tuned for more details.

Respirator Guidelines to Meet New Worker Protection Standards

Growers will need a medical evaluation and respirator fit test to handle and apply some pesticides this season.

Emily Pochubay and Amy Irish-Brown, MSU Extension

Requirements for a medical evaluation, fit testing, and specific training for use of respirators and the associated record keeping became effective on January 2, 2017. At this time, most growers are aware of this revision to the Worker Protection Standard (WPS) regulation that requires pesticide handlers and applicators to wear a respirator during mixing/handling, spray applications, and potential other uses as outlined on pesticide labels. Additionally, those who use pesticides with respirator requirements must receive documentation from a physician or licensed health care professional (PLHCP) that has 'respirator evaluation' as part of his/her license to ensure that the pesticide handler is medically able to use a respirator. Not all PLHCPs are qualified to provide the respirator evaluation, but primary care physicians should be able to refer patients to appropriate medical personnel. Alternatively, growers can contact local occupation and environmental health professionals who are more likely to have the

credentials needed to provide the appropriate respirator medical evaluation and documentation. Please review the following guidelines to help address some of the recent questions we have received from growers.

Who needs to receive a medical evaluation and how often?

Employees that could be exposed to hazardous airborne contaminants may be required to wear a respirator; respirators and respirator use requirements will be outlined on individual pesticide labels. Some pesticides may require respirators for employees that mix spray material and/or require applicators to wear a respirator during applications of certain pesticides. Employers are responsible for ensuring that employees receive the appropriate equipment, evaluation, respirator fit test, training, and record keeping that conforms to OSHA standards.

According to the EPA, the medical evaluation is required one time per employee unless another evaluation is required due to one of the following reasons:

- The medical determination is only good for a specified length of time.
- The employee reports medical signs or symptoms related to respirator use.
- The PLHCP, supervisor, or program administrator recommends a re-evaluation.
- Fit-test or other program information indicates a need for re-evaluation.
- When changes in the workplace increase respirator stress on an employee.
- The initial medical examination demonstrates the need for a follow-up medical examination.

Who provides the evaluation? What kind of evaluation and documentation are needed?

A physician or licensed health care professional (PLHCP) with respirator evaluation as part of their license will provide the appropriate evaluation using a medical questionnaire or exam that conforms to the OSHA standard. Contact the PLHCP to determine whether a questionnaire or exam will be used and to receive appropriate paperwork. Prior to completing the questionnaire or exam, employers must provide employees with:

- The type and weight of the respirator that the handler will use.
- How long and how frequently the handler will use the respirator.
- How much physical work the handler will do while using the respirator.
- Other PPE the handler will use.
- The temperature and humidity extremes of the working environment.

Contact a primary care physician to receive a referral for a licensed professional, if necessary. Another low-cost (~\$25) and fast alternative for a medical evaluation is OshaMedCert (<http://www.oshamedcert.com/Default.aspx>), an online service that involves filling out a form and sending it for approval or denial by a PLHCP; individual's health information remains confidential throughout the process. A respirator fit test

(see below) will be needed after receiving the medical determination from OshaMedCert.

A written medical determination of the respirator evaluation for each employee is required before the employee can use the respirator. The employer must keep the medical determination documentation for two years. According to the EPA, the required written information to be provided by the PLCHP to the employer must only include:

- Whether or not the employee is medically able to use a respirator.
- Any limitations on respirator use in relation to the medical conditions (if any) of the employee or workplace conditions.
- Need for any follow-up medical evaluations.
- A statement that PLCHP provided the employee with written recommendation; in some cases, this recommendations may simply state that the applicator/person that will use the respirator is capable of wearing a respirator.

Again, the information outlined above is the *only* information that should be provided in the PLHCP's recommendation to the employer to protect the employee's private medical information and avoid violation of HIPAA laws.

What's Next? Respirator Fit Tests.

After receiving a medical evaluation, a fit test is needed to ensure that the respirator forms an adequate seal with an employee's face to provide appropriate inhalation exposure protection. A new fit test is required annually or whenever there is a change to the respirator or a physiological change to the employee that could affect the seal between the respirator and the user's face. Furthermore, fit tests are required for each type of respirator that will be used as indicated by pesticide labels. Finally, employees must undergo the fit test using a respirator with the exact specifications of the respirator that will be used on the job.

Fit tests must follow OSHA protocols, and there are two methods for fit testing. The quantitative fit test (QNFT) requires special equipment and a trained person to conduct the testing. Fit test kits are also available to perform qualitative fit tests (QLFT) by a person that can accurately prepare test solutions, calibrate equipment, perform the test properly, recognize invalid tests and ensure test equipment is working properly. Sources for fit tests include pesticide suppliers or companies such as [Gempler's](#) or [Grainger](#).

A primary care physician may be able to provide additional options and referrals for fit test providers in the area. We confirmed that Munson Medical Center's Occupational Health and Medicine Clinic (550 Munson Ave. Traverse City, MI 49686; Ph: 231-935-8590) is equipped to perform the appropriate respirator exam (~\$80.00) and the fit test (~\$25.00) in one visit by appointment only. Spectrum Health Services in other areas of Michigan provide similar services. Patients that wish to only receive a fit test need to provide appropriate respirator exam result documentation prior to the test.

Additional information regarding respirator requirements and other WPS revisions can be found in the EPA's *How to Comply with the 2015 Revised Worker Protection Standards for Agricultural Pesticides* (<https://www.epa.gov/sites/production/files/2016-10/documents/htcmanual-oct16.pdf>).

2017 Tree Fruit IPM Kick-off

April 18, 2017, 5:00 – 8:00 PM

Northwest Michigan Horticultural Research Center

Please join Michigan State University Extension at the Northwest Michigan Horticultural Research Center on Tuesday, April 18 from 5:00 – 8:00 PM for the annual Tree Fruit IPM Kickoff! This year, we are pleased to host Ontario Ministry of Agriculture's Application Technology Specialist, Jason Deveau, using ZOOM teleconferencing. Deveau will discuss spray strategy techniques including application rates, calibration, coverage, and canopy management – the foundations of optimizing spray economy and effectiveness.

Following last year's challenging fire blight scenario, MSU's Dr. George Sundin will join us to present considerations for fire blight management this season. Dr. Sundin will also discuss the implications of new data on SDHI efficacy for cherry leaf spot management. Eric McCumber will provide a summary of the key Worker Protection Standard changes for 2017 and preparations for future changes. We will cover the annual pesticide label changes and updates and have a brief discussion on the future of borer pest management. This event is free of charge, and pesticide recertification credits and certified crop advisor credits will be available. We are looking forward to kicking off the 2017 season with you!

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|--------------------|---|
| 4:45 | Welcome and Refreshments |
| 5:00 – 5:15 | Pesticide Label Changes and Updates
<i>Emily Pochubay, MSU Extension</i> |
| 5:15 – 6:00 | Fire Blight and Leaf Spot Considerations for 2017
<i>Dr. George Sundin, Dept. of Plant, Soil, and Microbial Sciences, MSU</i> |
| 6:00 – 6:45 | Crop-Adapted Spraying
<i>Jason Deveau, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) via ZOOM Teleconference</i> |
| 6:45 – 7:00 | Break |
| 7:00 – 7:45 | Worker Protection Standard Update
<i>Eric McCumber, MDARD</i> |

7:45 – 8:00

Borer Management Challenges in Stone Fruit

Dr. Nikki Rothwell, MSU Extension and AgBioResearch

8:00

Fill out pesticide recertification and certified crop advisor sheets.

Manage oriental fruit moths using mating disruption

A guide for using mating disruption to effectively manage oriental fruit moths in Michigan tree fruit.

Posted on **April 4, 2017** by [Larry Gut](#), and Mike Haas, Michigan State University, Department of Entomology



Introduction

Oriental fruit moth, *Grapholita molesta* (Busck), is a major pest of peach and other stone fruits in Michigan and can also be problematic in apple in most production regions. Mating disruption is a highly effective tactic to consider when developing a management plan for oriental fruit moth. There are over 20 oriental fruit moth mating disruption formulations registered in the United States and an estimated 150,000 acres worldwide are treated with these technologies. Mating disruption is safe for humans and other non-target organisms including beneficial insects and, depending on the situation, can be used alone or in tandem with conventional insecticides. An important reason to employ mating disruption as a management option for oriental fruit moth is to avoid insecticide resistance problems that occur from repeatedly using insecticides from the same resistance class, which are often the pyrethroids due to their relatively low cost compared to newer types of insecticides.

What is mating disruption?

Mating disruption relies on the insect's own mate-finding abilities to prevent or greatly reduce the number of successful unions between male and female moths. By impeding the number of successful matings, fewer eggs are laid, leading to fewer larvae (worms) and less chance of fruit injury. When female oriental fruit moth prepare to mate, they let the males know by releasing a chemical called pheromone, which is active at extremely low concentrations and specifically attractive to just male oriental fruit moth. This "scent" floats through the air as a plume that the male finds with the use of his antennae, locating the female and mating with her.

Mating disruption products work by adding large quantities of synthetic pheromone to the orchard in a manner that either outcompetes calling females for the attention of males or impairs the ability of the male to respond to the pheromone in a normal manner. Disruption of oriental fruit moth can occur via either of the two principal mechanisms, depending on the release rate of pheromone from each dispenser. In both scenarios, control is achieved because males cannot locate females and mating gets disrupted.

Management considerations

Orchard shape and size are important considerations when implementing a mating disruption program. The ideal orchard would be square to rectangular and at least 5 acres in size. Long, narrow orchards have too much "edge," which is not ideal for effective mating disruption due to dilution of the pheromone at the edges and the increased opportunity for mated females to move from nearby, non-disrupted orchards into the pheromone-treated block.

Orchards that are very young and do not have a well-developed canopy are not great candidates. Additionally, an orchard with many missing trees is not ideal for mating disruption. The best strategy is to apply mating disruption on a whole-farm or area wide basis. This approach entails growers applying pheromone to all of their stone and pome fruit plantings and convincing neighboring growers to do the same.

An effective oriental fruit moth disruption program also requires monitoring with pheromone-baited sticky traps. If the male moths can find the traps, then it is likely they can also find the calling females and mate with them. Thus, if oriental fruit moth are not captured in traps, this is an indication that the mating disruption program is working.

The reliability of the monitoring program increases as more traps are deployed. The minimum trapping density is three traps in smaller blocks (less than 10 acres) and five traps in larger blocks. At least one trap should be placed close to a border. A few oriental fruit moth are often captured in border traps, as pheromone coverage on borders is sometimes lower and less uniform than required for complete disruption. If moths are captured on the border, inspect trees for signs that larvae have entered shoots, (i.e., flagging or shepard's crook) or fruit damage and apply a border spray of insecticide if an infestation is detected.

Oriental fruit moth damage to shoots is a more direct measure of mating disruption success than monitoring male moth capture in traps and should be assessed even when no moths are caught. Shoot counts are an especially important measure of efficacy early in the season. Examine 20 shoots on 20 trees per block, looking for flagging or other signs of damage. An insecticide spray is likely needed if 1 percent or more of the shoots are infested or if fruit damage is detected.

Commercially available products

Oriental fruit moth mating disruption products fit into one of three broad categories:

1. High density, sprayable liquids.
2. Moderate density, hand-applied dispensers.
3. Low density, aerosol emitters.

Each option is effective and the choice comes down to which alternative best fits into your orchard management plan. Considerations for each option are shown in the table below.

Commercially available oriental fruit moth mating disruption products		
Product type	Advantages	Disadvantages
Hand-applied (plastic tube, membrane, clip, wax dollop)	Apply once in beginning of season. Efficacy well-established.	Must have labor available. May not last season-long for late-ripening fruit.
Sprayable Micro-encapsulated (MEC)	Apply with standard spray equipment. Option to treat on an as-needed basis. Option to tank-mix with pesticides.	Multiple applications required for season-long control. Variable longevity. Rain will wash off product.
Aerosol (mister/puffer)	Apply once in beginning of season. Easy to apply. Programmable, option to apply pheromone only when moths are present.	Possibility of mechanical problems. Pheromone coverage on edges can be problematic. Treating a large area is best.

Application

Hand-applied dispensers

Hand-applied dispensers are the most widely used products for oriental fruit moth disruption. As the name implies, they are manually placed in trees at densities of 100-200 devices per acre. In orchards with canopy heights of less than 12 feet, dispensers can be applied at mid-canopy (7-8 feet). In orchards with taller trees, apply at least half of the dispensers in the upper third of the canopy. Place dispensers on sturdy branches

to ensure they remain at the desired height throughout the season. Inform workers about the presence of dispensers so they do not remove them during spring pruning.

Dispensers are commonly put in the trees in the spring prior to the first oriental fruit moth flight. There is also the option of treating the first generation with insecticides and then applying the dispensers a few weeks later. However, the spring pheromone application is most effective, especially if combined with a single insecticide spray. Some dispensers will last season-long (about 120 days), while others will need to be applied a second time after about 80 days. Refer to the product label.

Apple growers will likely have to contend with oriental fruit moth and codling moth. An option for disrupting the two pests is to use a hand-applied product that contains the pheromone of both species. The application rate for codling moth is typically higher than that for oriental fruit moth. Thus, it may be more economical to apply the dual product at the lower rate of 100-200 dispensers per acre and then supplement the treatment with an additional 100-200 codling moth only dispensers.

Sprayable products

Sprayable products consist of pheromone encapsulated in microscopic polymer capsules from which the pheromone is slowly released over time. Several million capsules are applied per acre that together deliver 9-20 grams of pheromone over a period of three to five weeks, depending on environmental conditions. Shorter longevity occurs when pheromone release is accelerated by high temperatures or capsules are washed off foliage by rain.

Sprayable pheromone will have a range of active ingredient strengths listed on the label, allowing for several options to manage oriental fruit moth. A single high-rate application at the start of each generation's flight may provide generation-long disruption. Two applications will probably be required if emergence is prolonged, it rains or during hot summer periods.

A proven alternative to applying a higher rate once or twice per flight is to use the lowest labeled rate and apply more frequently, say every seven to 10 days. This ensures a fresh supply of pheromone is present even when rains have washed away earlier sprays. A third option is to use insecticides supplemented with one or a few targeted pheromone applications when high moth captures are recorded in traps.

Aerosol emitters

A low-density approach stores and releases the pheromone via aerosol emitters that dispense large quantities mechanically. These devices provide a controlled constant release rate and a stable environment for the pheromone prior to its release. Each unit releases milligram quantities of pheromone every 15 minutes over a 9- to 12-hour cycle. Aerosol emitters for oriental fruit moth are deployed at a density of 1 unit (up to 2 per acre in heavily infested orchards) prior to the start of the first adult flight. An aerosol

product that emits the pheromones of both oriental fruit moth and codling moth is also available and is deployed at a density of 1-2 per acre.

One concern with using this technology is that the mechanical failure of a unit would leave large areas unprotected. Thus, it is a good idea to routinely inspect the devices to make sure they are functioning properly. Another potential weakness is the low deployment density may leave areas of little or no pheromone coverage, especially on borders, where mate-finding might occur. Since edges can be problematic in aerosol-treated crops, emitters are generally hung in the upper canopy to facilitate spread of the aerosol across the orchard. Treating large contiguous areas of 40 acres or more is recommended for the best results and supplemental treatment of the perimeter with hand-applied dispensers can help protect borders.

[Michigan State University Extension](#) encourages growers to utilize mating disruption in their oriental fruit moth management program, particularly in peach production where there is a need for breaking the cycle of repeated pyrethroid use against oriental fruit moth. By following the guidelines in this article, effective oriental fruit moth management can be achieved.

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

Video presents results of Riesling early leaf removal

Learn results on Riesling with cluster zone leaf removal around bloom to reduce fruit set and consequently reduce cluster compactness.

Posted by **Paolo Sabbatini**, Michigan State University Extension, Department of Horticulture, MSUE News

2015 Michigan Grape and Wine Industry Council
funded research projects

Project:
Leaf removal: A tool to improve crop
control and fruit quality in vinifera
grapes

Presented by:
Paolo Sabbatini, MSU Horticulture



Viticulture in Michigan is limited by a cool and humid climate, often evidenced by harvest season cluster-rot, poor ripening and reduced technological maturity for economically important wine grape varieties characterized by the compactness of the berries held on the cluster rachis. Thanks to funding from the [Michigan Grape and Wine Industry Council](#), growers can watch a short video on “[Leaf removal: A tool to improve crop control and fruit quality in vinifera grapes.](#)” This video presents results on Riesling (the most-planted white wine variety in Michigan) on cluster zone leaf removal around bloom to reduce fruit set and consequently produce a controlled reduction in cluster compactness, improving fruit technological maturity and harvest and reducing bunch rot.

The defoliation treatments were effective in reducing the bunch size, consistently showing a reduced number of berries when compared to the control. The removal of six basal nodes appeared to be a stress threshold above which the vines were no longer able to effectively maintain a supply of resources to the reproductive organs of the vine. The reduction of leaf area, achieved with defoliation of six basal nodes, did not significantly affect the final yield per vine, but did affect the number of bunches per vine. Early removal reduced yield per vine, and such yield reduction corresponded to an increased level of berry sugar accumulation as well as to a reduced fruit acidity.

The development of this project helped growers to better understand using a practical tool in canopy management (leaf removal) that can have a great impact on yield per vine and fruit ripening. Although manual defoliation is a time-consuming operation, the value of its positive effects in improving quality traits is fundamentally important and proved to far outweigh the initial expense by providing drastically improved quality and yield. The positive impact on the formation of looser clusters is also important, especially in wet years, which reduced the incidence of bunch rot and increased the quality of the fruit (basic fruit chemistry, color and skin/flesh ratio).

Early leaf removal proved to be a valid technique for reducing crop, improving fruit quality and decreasing the incidence of bunch rot, taking the place of multiple fungicide applications reducing the amount of chemical sprayed on a vineyard and the labor cost associated with it.

To access “[Leaf removal: A tool to improve crop control and fruit quality in vinifera grapes](#)” and other wine grape research videos on a variety of topics, go to the [Michigan State University Extension Grapes Research page](#).

The Protection Plan for Managed Pollinators in Michigan draft release

Michigan has released its draft plan to protect managed pollinators from pesticide threats. This joint effort is designed to provide clear actions that can be taken to reduce pesticide exposure to bees.

Posted by **Sarah Scott**, and Meghan Milbrath, Michigan State University Extension, Department of Entomology, MSUE News



Image courtesy of Sarah Scott, MSU.

The [Michigan Department of Agriculture and Rural Development](#) (MDARD), along with [Michigan State University](#) and [Michigan Farm Bureau](#), is releasing its [draft Protection Plan for Managed Pollinators in Michigan](#) (referred to as the plan), which aims to increase communication to reduce the risk of pesticides to pollinators across our state. The steering committee is seeking feedback from the public on the proposed draft to produce a document that has the most positive impact and acceptance among Michigan citizens.

The draft plan can be found online at [The Protection Plan for Managed Pollinators in Michigan](#). The document includes voluntary strategies for growers, beekeepers, landowners and pesticide applicators to mitigate the risk of pesticides while still supporting a robust agricultural economy. Michigan's plan follows the [National Strategy to Promote Pollinator Health](#), which includes the Pollinator Research Action Plan and the Pollinator-Friendly Best Management Practices for Federal Lands.

Our plan follows the [National Association of State Departments of Agriculture guidelines](#) for creating a managed pollinator protection plan. Over time, the plan will be reviewed to determine how well it is working to help protect managed pollinators.

The plan is meant to provide a way to mitigate the risk of pesticides to bees and other managed pollinators while supporting the use of crop protection. This will be

accomplished by establishing a framework for open communication and coordination between individuals who are applying pesticides and beekeepers that have colonies in areas that could be impacted, and supporting best management practices. The key goals of the document are:

- Mitigate potential exposure of honey bees to pesticides.
- Foster positive relationships between beekeepers, growers and applicators.
- Allow for crop and honey production.
- Refine public understanding of pollinator health issues, factors affecting pollinators and what can be done to mitigate negative outcomes on pollinator populations.
- Find ways to minimize risk to pollinators that citizens, businesses, agencies and Michigan residents can follow.

If you would like to provide input and feedback on the plan, please complete the [Protection plan for managed pollinators in Michigan feedback survey](#), or email any comments to MMP3@msu.edu by June 1, 2017. [Sign up for the plan mailing list](#) to stay up-to-date on developments or changes to the plan.

For more information on other states' Managed Pollinator Protection Plans, resources on Michigan's Plan or pollinators in Michigan, visit MSU's [Michigan Pollinator Initiative Managed Pollinator Protection Plan page](#). The final draft of the plan will be available at [MDARD's Managed Pollinator Protection Plan website](#).

Chestnut Orchard Establishment Workshop

Join us to learn about commercial chestnut production in Michigan this April!

Erin Lizotte, MSU Extension

The Michigan chestnut industry has been growing steadily over the last decade, with a lot of interest in production from new growers. To address this interest, Michigan State University Extension will be holding a one-day workshop to introduce attendees to the opportunities and challenges of commercial chestnut production. The workshop will include: an introduction to the history of the industry in Michigan; an economic analysis of production; orchard establishment and design; pest management; and harvesting, marketing, and storage.

The Chestnut Orchard Establishment Workshop will be held on April 20th from 10:00 am-4:00 pm at the Clarksville Horticultural Experiment Station, in Clarksville Michigan. The cost of the event is \$50 and includes lunch and support materials. To register, visit <https://events.anr.msu.edu/chestnutworkshop2017/>

Those attending are encouraged to visit www.chestnuts.msu.edu before the event for a primer on chestnut production. The '[Production considerations](#)' section may be particularly helpful.

Pruning Workshop: *for Home Gardeners*

LEARN THE SCIENCE AND ART OF PRUNING:

Pruning is an important cultural practice for maintaining the health, vigor and appearance of woody plants. It involves both art and science - art, in shaping plants to enhance the landscape; and science in knowing how, when, where and why to prune for maximum benefit.

MSU Extension will host a pruning workshop on **Friday, April 28, 2017 from 8:30 a.m. - 12:30 p.m.** at the **NW Michigan Horticultural Research Center** (just north of Traverse City, near Bingham in Leelanau County). This workshop is geared towards homeowners and gardeners, and will help you master the science (and a bit of art) of pruning. **MSU Extension Sr. Educator, Rebecca Finneran**, will lead this workshop. Participants will spend time in the classroom learning best pruning practices and the best equipment for each job, and then move outdoors to apply the learning with hands-on pruning. Participants should bring their own hand-held pruning shears if available, and wear weather- appropriate clothing to be both indoors and outdoors; rain or shine.

The cost is **\$35 per person**, and includes education, instruction and light refreshments. Spaces are limited and preregistration is required.

HOW TO REGISTER:

Register online at: <https://events.anr.msu.edu/pruningworkshop>

CONTACT:

For more information, contact **Annette Kleinschmit** at 231-256-9888 or kleinsc7@msu.edu .

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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:

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

Information on apples:

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

Information on grapes:

<http://grapes.msu.edu>

Fruit CAT Alert Reports:

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