

Northern Michigan FruitNet 2016 Northwest Michigan Horticultural Research Center

Weekly Update

FruitNet Report – June 29, 2016

CALENDAR OF EVENTS

5/4 – 6/29	Antrim County IPM Updates, 10AM – 12PM Jack White Farms (details below)
5/4 – 6/29	Benzie County IPM Updates, 2PM – 4PM Blaine Christian Church (details below)
7/1	Natural enemies, new insecticide options, perimeter spray programs-- Rufus Isaacs, MSU Hawthorne Vineyards on Old Mission Peninsula, 3-5PM
7/13	Income Taxes for Foreign Agricultural Workers (H-2A) NWMHRC, 8AM – 4:30PM
8/25	NWMHRC Open House

What's New?

- **SWD Trap Update – June 28, 2016**
- **Michigan spotted wing Drosophila report for June 28, 2016**
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SWD Trap Update – June 28, 2016

Catch Date	Location	Crop	Total No. of SWD
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5/31	Centerville Twshp.	Tart Cherry	1
6/16	S. of Suttons Bay	Tart Cherry	1
6/17	Old Mission	Woodlot	2
6/20	M-72 W corridor	Tart Cherry	2
6/21	Old Mission	Sweet and Tarts	3
6/21	Elk Lake Rd.	Wild Raspberry	1
6/22	N. of Suttons Bay	Tart Cherry	1
6/22	Eastport	Wild Cherry	1
6/24	Northport-Omena	Tart Cherry	3
6/27	M-72 W corridor	Tart Cherry	7
6/27	Benzie	Tart Cherry	1
6/27	Benzie	Gooseberry	1
6/28	Elk Lake Rd.	Tart Cherry	1
6/28	Centerville Twshp.	Tart Cherry	1
6/28	Old Mission	Honeysuckle, Sweet Cherry, Tart Cherry	5
6/29	Elk Lake Rd.	Tart Cherry	2
6/29	Yuba		1
6/29	S. of Suttons Bay	Tart Cherry	2
6/29	Bingham	Mulberry, Raspberry	3
6/29	East Leland	Strawberry	2
6/29	Centerville Twshp.	Sweet Cherry	3

Total catches per region:

Centerville Twshp. - 5

S. of Suttons Bay - 3

Old Mission - 10

M-72 W corridor - 9

Elk Lake Rd. - 4

N. of Suttons Bay – 1
Eastport - 1
Northport-Omena - 3
Benzie – 2
Yuba – 1
Bingham – 3
East Leland – 2

Monitoring for SWD Larvae in Cherries Before Fruit Enters the Processing Facility – PDF WITH PHOTOS ATTACHED TO THIS EMAIL

Guidelines for inspectors to detect fruit infested with SWD larvae at the receiving station or prior to entering the processing facility

N. Rothwell and E. Pochubay, K. Powers, NWMHRC

Spotted wing Drosophila (SWD) is the primary pest of concern for the 2016 harvest season in cherry orchards. This pest has the reproductive capacity to build populations quickly in the field, and controlling large numbers of SWD is a challenge in commercial orchards. Most tart and sweet cherries are susceptible to SWD infestation at this time, and growers will need to maintain tight spray programs to control this pest to deliver SWD-free fruit to the processing facility. Furthermore, processors and receivers would prefer to detect SWD-infested fruit before it enters the processing facility. Below are some guidelines for setting up a procedure to inspect for SWD-infested fruit at a receiving station or prior to fruit entering the processor.

It is recommended that a salt solution be used for rapid fruit sampling for SWD. Inspectors should collect subsamples of fruit from the harvested tanks of cherries. Fruit that is infested by SWD will have some distinctive characteristics, which may not be readily identified without practice; however, once inspectors have seen SWD-infested fruit, they develop a good eye for detecting them. For instance, cherries with SWD larvae will have oviposition scars – tiny circular puncture holes that grow as the cherry starts to break down (Figure 1). These puncture holes are distinct and unlike the crescent shaped oviposition scars caused by plum curculio. Often, especially when the SWD infested fruit are intact, the fruit have a leaky appearance around the oviposition scars, and droplets of cherry juice emerge from the scars when the fruit is slightly squeezed (Figure 2). SWD eggs are laid into fruit; however, these eggs are quite distinctive and can be differentiated from other pest species eggs (ex. cherry fruit fly) as SWD eggs have two breathing tubes. These tubes are often visible with the naked eye, and these tubes can be observed sticking slightly out of the fruit (Figure 3).

Additionally, fruit that has SWD larvae will also have a bruised appearance, and sometimes slightly sunken where the eggs were laid. Montmorency cherries have a darker color (less than bright red color) in the area when the females laid the egg in the fruit. Infested fruit often have a vinegary or overripe smell, which may not be detected unless the level of infestation is quite high or when the fruit has not been placed in water. Once the inspector performs a quick visual inspection (as mentioned above), the subsample of fruit should be placed into a salt solution to test for live SWD larvae (Figure 4); larvae will wiggle out of the holes in the fruit or at the very least the larvae will stick their posterior ends out of the fruit giving the cherry a 'whisker-like' appearance (Figure 5).

Salt Solution Recipe and Methodology

- Dissolve 1 tablespoon salt per 1 cup warm water. Warm water reduces the time it takes for the larvae to exit the fruit; cold water will reduce larval activity.
- Fruit should be slightly squeezed before placing it into the salt solution. SWD larvae do not like to be disturbed and will more readily exit the fruit when pressure is applied to them. Inspectors should not squeeze the fruit enough to break the skin of the cherry as the flesh of the Montmorency has whitish colored veins that can be mistaken as SWD larvae (Figure 6). Inspectors should only squeeze the cherries enough to disturb the internal larvae.
- Place fruit in a shallow pan, and cover with salt solution. Fruit will float at the surface, so the inspector should be sure to swirl the fruit every few minutes to make sure all fruit are exposed to the salt solution
- Fruit should remain in the salt solution for at least 10–15 minutes to observe larvae exiting the fruit.
- Inspectors should have a good hand lens (at least 15-20x, 30x is better; the higher the magnification, the better) and good lighting to see small larvae. Even the most seasoned entomologist will have difficulty detecting first instars as they are better observed under a microscope. However, if no microscope is available, second instars and older larvae are visible with the naked eye. If a quantitative sample is necessary, inspectors should count the larvae quickly while they are still alive and moving.

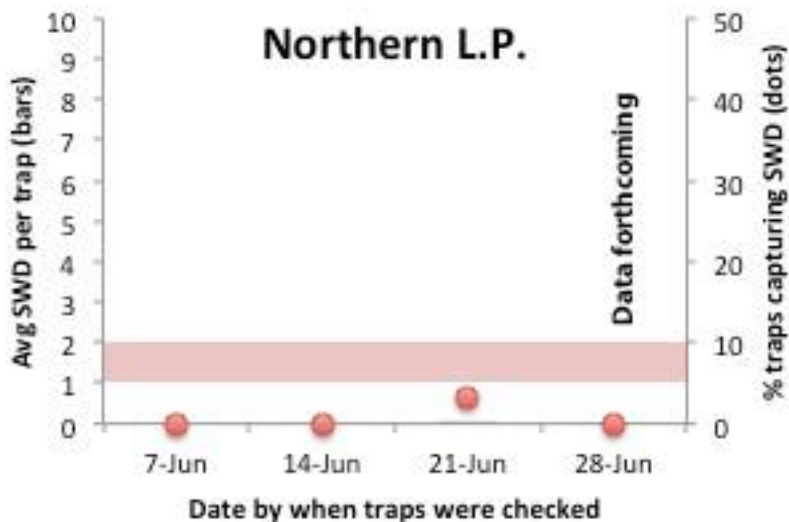
The larval stage of SWD can be difficult to identify. The SWD larvae look like a maggot (Figure 7), which unfortunately look like cherry fruit fly larvae. However, if there is a relatively large infestation/multiple larvae, we can assume that all or most larvae found in a sample are SWD as past infestations have shown SWD can lay multiple eggs and multiple larvae can pupate inside a single fruit. The NWMHRC would be happy to assist in identification, so please do not hesitate to call (231-946-1510).

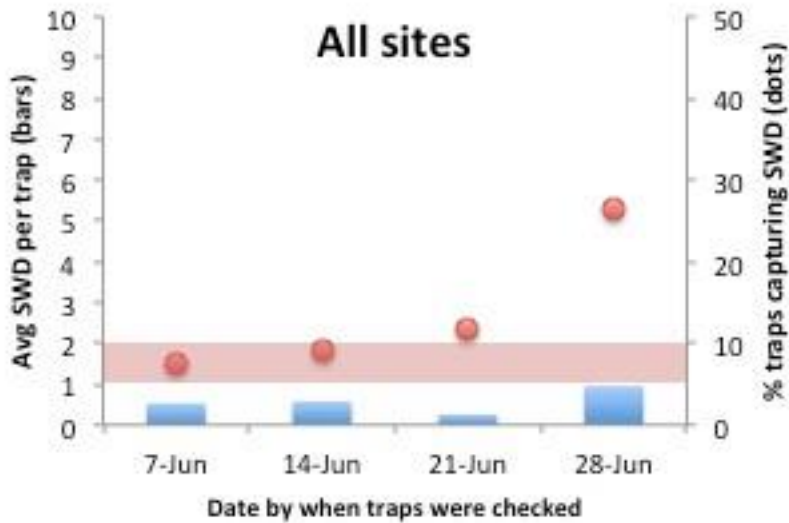
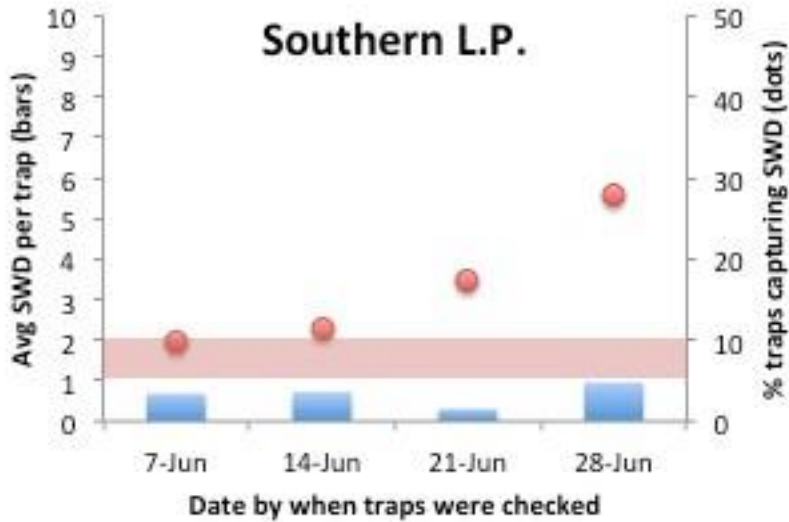
Michigan spotted wing Drosophila report for June 28, 2016

Traps are detecting spotted wing Drosophila throughout the network; susceptible crops need to be protected.

Posted by **Julianna Wilson**, Rufus Isaacs and Larry Gut, Michigan State University Extension, Department of Entomology, MSUE News

This is the Michigan State University Extension spotted wing Drosophila (SWD) Statewide Monitoring Network report. Traps are now up at more than 150 different locations for the 2016 season. This week, 38 females and 27 males for a total of 65 SWD flies were captured in monitoring network traps in the southern Lower Peninsula. SWD adults have been captured in traps baited with commercial lures in strawberry (Ottawa County), blueberry (Allegan, Berrien, Ottawa counties), raspberry (Allegan, Berrien, Van Buren counties), grape (Berrien County) and cherry (Allegan, Antrim, Berrien, Grand Traverse, Kent, Macomb and Oceana counties) blocks. Although average trap catch is still relatively low in most areas – less than one SWD fly per trap over the entire network – ripening fruit are likely to be at risk if not protected against infestation.





Bars represent the average number of SWD flies caught in monitoring network traps each week. Dots represent the percent traps that captured SWD that week. The shaded bar across each graph represents the proposed threshold for triggering management of the pest in susceptible crops. Northern Lower Peninsula (LP) encompasses all network traps in counties north of and including Clare in the Lower Peninsula. Southern LP encompasses all network traps in counties south of Clare in the Lower Peninsula.

Regional summaries of fly captures over the last four weeks suggest populations are still low in the northern Lower Peninsula (Antrim, Benzie, Grand Traverse, Leelanau), but the number of traps capturing SWD flies continues to rise in the fruit growing counties being monitored in the southern Lower Peninsula.

Traps in the network are baited with commercially available lures and placed in

susceptible crop fields or orchards, or in a location adjacent to susceptible crops, in areas where SWD infestation has been recorded in the past. Commercial plantings include strawberry, blueberry, raspberry, grape, tart and sweet cherry, peach and plum. Counties included in the 2016 trapping network are Allegan, Antrim, Benzie, Berrien, Genesee, Grand Traverse, Ingham, Ionia, Kalamazoo, Kent, Leelanau, Lenawee, Livingston, Macomb, Mecosta, Monroe, Oakland, Oceana, Ottawa and Van Buren.

For the most current recommendations for monitoring this pest, please refer to [“Monitoring traps for catching spotted wing Drosophila.”](#) You can find out more about how to identify and manage this pest in fruit crops by visiting [MSU’s Spotted Wing Drosophila](#) website.

ETHEPHON ON CHERRIES

N.L. Rothwell, District Horticulturist

J. Nugent, Retired District Horticulturist

E.A. Pochubay, NWMHRC Fruit IPM Educator

Ethephon is a plant growth regulator (PGR), and results from its use vary with chemical concentration and time of application. As with many PGRs, ethephon = has systemic properties which allows it to penetrate plant tissue and is eventually decomposed to produce ethylene. In cherry systems, ethephon is used to promote fruit loosening to assist with mechanical harvest of fruit. Ethephon, sold under the trade name Ethrel, is a standard management practice in both tart and sweet cherry harvest.

Ethephon releases ethylene, which penetrates plant cells and binds to receptors that affect expression of various genes. In the case of cherries, ethephon affects the gene that controls the synthesis/activation of cell wall loosening enzymes, thus dissolving the pectins between cells in the abscission layer. This chain-like reaction leads to cell separation in the developmentally-programmed abscission zone between pedicel and fruit or pedicel and spur. In short, ethephon loosens the cherries from the stem, which results in a gentler ‘shaking’ of the tree to remove the fruit.

In years past, we have observed ethephon-induced damage in hot and dry weather. Ethephon can have excessive activity under hot and dry conditions, which can result in tree injury. We remind growers that we have observed ethephon damage under hot and dry conditions in the past, especially in sweet cherries. Of sweet cherry varieties, Golds were observed to be the most sensitive. If temperatures are in the high 70s to mid- or upper 80s and sunny during the 72 hours following application, this weather could be conducive for causing Ethrel damage; the magnitude of ethephon response is increased at higher temperatures following application. Tree vigor also influences the degree of response achieved by an ethephon application. Trees low in vigor or under stress due to drought, cold damage, San Jose scale infestation, disease, virus, phytotoxic

injury, etc. will respond to a greater extent, and gumming and leaf abscission may result. Hence, growers may choose to reduce rates in orchards that are stressed, particularly if temperatures will be higher with the potential to cause injury.

Crop load is also a factor when determining what rate to use. Heavy crop loads are typically more difficult to loosen compared with light crop loads. Many orchards have a heavy crop load this season, and these growers may need to use a higher rate or leave extra time to achieve optimal loosening. Again, an increased rate could cause injury if temperatures are high following the application. Furthermore, growers should be prepared that if an orchard is taking a longer time to loosen, then the orchard may need to be treated with an insecticide that is effective against spotted wing drosophila to prevent larvae in fruit. Please review the 2016 Fruit Management Guide, the Managing Spotted Wing Drosophila in Michigan Cherry bulletin, and insecticide labels for additional information on efficacious insecticides and pre-harvest application intervals. Balancing SWD management and harvest will take increased consideration at the grower level and good communication between growers and processors.

The following recommendations should be used when applying ethrel to cherries:

1. **Rate:** Vary the rate depending on anticipated temperatures for 72 hours after application, days before harvest, tree stress and past experience. Lower rates decrease the likelihood of tree injury. *If temperatures 72 hours after application are predicted to be in the 80s, growers should reduce the Ethrel rates.*
 - A. **Light sweets** -- When applied concentrate (80 gal water/acre or less), 1 to 2 pt/acre applied 10-14 days before anticipated harvest should provide adequate loosening. Rates up to 2.5 pt/acre may be necessary for harvesting in less than 10 days. When applied dilute, use no more than $\frac{3}{4}$ pt/100 gals or 3 pt/acre. Reducing rates in light sweet cherries, particularly Golds, is recommended if predicted temperatures are in the 80s after application.
 - B. **Dark sweets** -- When applied concentrate, use 1.5 to 2.5 pt/acre applied 10-14 days prior to anticipated harvest. Rates up to 3 pt/acre may be necessary for harvesting in less than 10 days. When applied dilute, use no more than 1 pt/100 gal or 4 pt/acre.
 - C. **Tart cherries** -- When applied concentrate, use 0.5 to 1 pt/acre applied 7 to 14 days prior to anticipated harvest. When applied dilute, apply no more than $\frac{1}{3}$ pt/100 gal or 1 pt/acre.
2. **Time of Application:** Apply approximately 7 to 14 days before anticipated harvest. Do not harvest within 7 days of application (Ethrel has a 7-day PHI).
3. **Temperature:** Avoid application when high temperatures are expected to exceed 80° F or remain below 60° F for the 72 hour period after application. Growers should use lower than normal rates when highs are expected in the 80s.
4. **Tree stress:** Do not spray trees that are low in vigor or under stress conditions.
5. **Do not** spray trees that had serious gumming the previous year.

6. **Crop load:** Heavy crop loads (i.e. low leaf to fruit ratio) are more difficult to loosen than lighter crops. There is a heavy crop load in many orchards this season, and growers may need to use relatively higher rates or expect a longer time to achieve desired loosening. In trees with a light crop, reduced rates are recommended and rate reductions in light blocks will still achieve adequate loosening while minimizing the potential for injury in hot conditions this season.
7. **Concentrate spraying:** Applying ethephon with concentrate sprayers (i.e. 80 gallons of water/acre or less) achieves the same level of loosening at lower rates per acre than does dilute applications. Uniform coverage is important.
8. **Tree size:** Suggested rates/acre are based on full-sized trees. Adjust rates downward when treating blocks with smaller trees.

Growers should pay particular attention to the temperatures after the time of ethephon application. As evident from past experiences, hot temperatures can do damage to cherry trees. Growers that have had problems in the past years should reduce rates, especially if the trees showed serious gumming and leaf loss.

Miticides options for controlling mites in cherry

Emily Pochubay and Nikki Rothwell, NWMRHC

Mite populations at the research station remain low at this time, but we have received reports that mite numbers are building in orchards in the region. With a relatively drier season, this year poses the potential for higher than normal pest mite densities. Furthermore, insecticides targeting the complex of late season pests, particularly pyrethroids for SWD control, could contribute to mite flaring; growers should be prepared for the possibility that orchards may need a miticide this season. Pyrethroid insecticides are toxic to mite predators, and their use can lead to a flare up of pest mites. Fortunately, there are several registered miticides available for use on cherry (Table 1). However, growers should check labels for pre-harvest intervals and registered uses if a miticide is applied before and/or after harvest. Please refer to the 2016 Fruit Management Guide for additional information on miticide efficacy.

Scouting for mites should be begin prior to harvest, with enough time to determine if a miticide will be needed prior to harvest. This pre-harvest monitoring period should begin early enough to consider

Figure 1. Binomial Sampling Charts for TSSM and ERM

European spruce mites			European red mites		
No. of leaves with 2 or more mites	% of leaves with 2 or more mites	Average No. mites per leaf	No. of leaves with 1 or more mites	% of leaves with 1 or more mites	Average No. mites per leaf
10	40	2.1	10	40	0.7
12	50	3.0	12	50	1.1
15	60	4.1	15	60	1.6
17	70	5.4	17	70	2.6
20	80	8.5	20	80	4.7
21	84	10.1	22	90	11.4
			24	95	15.3

Examine 25 leaves per site at each of 3 to 5 sites per block

Charts are adapted from "Orchard Pest Management" published by GOOD FRUIT GROWER, 1993

that some miticides have a long PHI. One method of monitoring TSSM motile populations consists of sampling 25 intermediate-aged leaves at 3-5 sites within a block. Count the number of leaves that have two or more TSSM motiles from each sample, and follow the binomial charts to estimate the number of mites per leaf (Figure 1). Treatment thresholds for TSSM are 8-10 mites per leaf from July through post-harvest

Table 1. Miticides to use on cherry crops to target certain mite pests (Table modified from *Miticides options for controlling mites in fruit* by John Wise, Rufus Isaacs, Larry Gut published on April 26, 2016).

Compound	PHI Cherry	Life stage target	Life stage target	Seasonal timing	Residual control
Savey	28	ERM	Egg/larvae	Early***	8-12 weeks
		TSSM	Egg/larvae	Mid (or threshold)**	6-8 weeks)
Onager	28	TSSM	Egg/larvae	Mid (or threshold)**	6-8 weeks
Apollo	21	ERM	Egg/larvae	Early***	8-12 weeks
		TSSM	Egg/larvae	Mid (or threshold)	6-8 weeks
Agri-Mek	21	ERM, RM	Motiles*	Early****	8-12 weeks
		TSSM	Motiles*	Mid (or threshold)	6-8 weeks
Gladiator	21	ERM, RM	Motiles*	Early****	8-12 weeks
		TSSM	Motiles*	Mid (or threshold)	6-8 weeks
Vendex	14	ERM	Motiles*	Mid (or threshold)**	4-6 weeks
		TSSM	Motiles*	Mid (or threshold)	4-6 weeks
Zeal	7	ERM	Egg/larvae	Early (or threshold)**	8-10 weeks
		TSSM	Egg/larvae	Mid (or threshold)**	6-8 weeks
Envidor	7	TSSM	Egg, motiles*	Mid (or threshold)	6-8 weeks
Nexter	7	ERM, RM, TSSM	Motiles*	Mid (or threshold)**	6-8 weeks
Acramite	3	ERM	Motiles*	Mid (or threshold)**	6-8 weeks
		TSSM	Motiles*	Mid (or threshold)	6-8 weeks
Danitol	3	ERM	Motiles*	Mid (or threshold)**	4-6 weeks
		TSSM	Motiles*	Mid (or threshold)	4-6 weeks
Magister	3	TSSM	Eggs, motiles*	Mid (or threshold)	3-5 weeks

* Motile forms include mite larvae, nymph and adult stages.

** Optimally used petal fall through August when mites reach threshold.

- *** Optimally used pre-bloom through first cover.
- **** Optimally used petal fall through second cover.

Peach and Plum Variety Showcase

Date: August 23, 2016

Time: 4:00 p.m. - 7:00 p.m.

Location: SW Michigan Research & Extension Ctr, 1791 Hillandale Rd., Benton Harbor, MI 49022

Contact: MSU Extension Tree Fruit Specialist Bill Shane: (269) 208-1652 or shane@msu.edu

You are invited to see and taste the newest, traditional, and unusual peach and plum varieties and experimental selections.

This extensive stone fruit display will be assembled from samples contributed by commercial growers, nurseries, and university breeding programs across Michigan and elsewhere. Fruit on display will include yellow and white fleshed peaches and nectarines, donut, aprium, and plumcot types. Attendees will see new varieties and experimental selections from the Stellar, Flamin' Fury, Rutgers University, University of Wisconsin, Cornell University, and Michigan State University breeding programs. Breeders, commercial nursery, growers, and university researchers will share their experiences and recommendations with these new varieties.

This showcase will take place in Berrien County at the SW Michigan Research & Extension Center, 1791 Hillandale Rd., Benton Harbor, MI 49022 from 4:00 PM to 7:00 PM. The schedule is: 4:00 PM Fruit variety displays open for viewing and tasting; 4:30 PM Fruit variety discussions; 6:00 PM Supper. There is no charge. Supper provided courtesy of International Plant Management and Summit Sales, Lawrence, MI.



Directions to SWMREC: Travel on I-94 to Exit 30, which is Napier Avenue. Turn east on Napier Avenue and go 2 1/2 miles to Hillandale Road. Turn south (right) and travel to the entrance of SWMREC (about one-quarter mile on the east (left) side of Hillandale Road).

You are welcome to bring samples of new, unusual, and experimental peaches and plums varieties to add to the display. The SW Research and Extension Center will be open for self-guided tours to see over 60 projects on fruit and vegetables including high tunnel production, grapes, hops, peach training systems, variety trials, and peach breeding.

This showcase is organized by the Michigan Peach Sponsors, Summit Sales, International Plant Management, and Michigan State University Extension.

Income Taxes for Foreign Agricultural Workers (H-2A) – Meeting

Meeting Dates and Times:

Tuesday, July 12, 2016

Ottawa County Fillmore Complex Main Conference Room 12220 Fillmore Street West Olive, MI 49460

Wednesday, July 13, 2016

MSU Northwest Michigan Horticultural Research Center 6686 S. Center Highway Traverse City, MI 49684

Michigan's agricultural industry has been seeing a decline in recent years of the traditional labor resources that have been used in the past. The use of the H-2A Guest Worker Program has seen a significant increase in use recently with continued significant growth in coming years. With this increase there is a need for legal and tax professionals to have an understanding on how to prepare taxes for H-2A guest workers, common pit-falls and challenges.

This Continuing Education Program will provide a four hour presentation with three hours of hands-on workshop to help tax professionals understand how tax law impacts foreign agricultural workers and their employers and give them a better understanding of the challenges faced by tax professionals, employers and the workers themselves as they strive to comply with federal and state tax laws.

The information included also applies to all taxpayers who use ITINs when filing tax returns and/or have spouses and/or dependents living outside the United States.

This program will use IRS Publications 519 and 51 and others as a guide throughout this training. Participants will gain an understanding of tax preparation for H-2A Guest Workers, the appropriate method to fill-out an ITIN documentation/application, how to appropriately calculate the time a guest worker has been "in country" over the past 3-

years to determine the correct tax documentation needed to be filed in the present tax year. Participants will also receive an overview of the tax deductions, credits available and not available to H-2A Guest Workers.

This program will also discuss payroll and tax withholding issues and responsibilities of an Employer and H-2A Laborer that all tax and legal professionals should be aware of when working with their clients.

Registration fee is \$125.00 per person which includes lunch, refreshments, handouts and materials. **Register online** by July 8, 2016 at <http://events.anr.msu.edu/H2ATaxPrepWorkshop/>. Online registration offers payment by credit card or check. Or to register by mail, mail completed registration form at right with check payment no later than July 5. Please indicate the location you would like to attend.

More information can be found in the attached PDF flyer.

Attend the 2016 spotted wing *Drosophila* berry grower training on June 30

Take the guesswork out of your spotted wing *Drosophila* (SWD) control program. Learn how to use a systems approach to control SWD.

Posted by [Carlos García-Salazar](#), Michigan State University Extension, MSUE News



Blueberry growers learning to use Enviro-weather for SWD management.

[Spotted wing Drosophila](#) (SWD) have been trapped for several weeks, and this pest is ready to attack Michigan berry fields. It is time to prepare your control strategy to stop SWD. Early detection and action is critical for successful SWD management. To help berry growers control this pest, [Michigan State University Extension](#) has developed an intensive [2016 Spotted Wing Drosophila Workshop](#) using information on SWD biology, insecticides, weather conditions and other tools. Integrating information and tools from different sources to create a robust system is called a systems approach and is a highly effective way to handle any problem.

This workshop will be on Friday, June 30, 2016, from 9 a.m. to 4 p.m. at the Ottawa County Fillmore Complex Boardroom, [12220 Fillmore Street, West Olive, MI 49460](#). There is a \$30 registration fee for this workshop, which includes materials and refreshments. [Pre-registration](#) is required. Four RUP credits will be available for certified pesticide applicators. For a complete description of the program and to register, go to: [2016 Spotted Wing Drosophila Workshop](#).

This workshop is designed for berry growers, field managers, pest consultants and anyone involved in insect pest management in berry crops. Its goal is to teach growers to manage SWD using a systems approach. Participants will learn SWD biology and behavior, recommended insecticides and their strengths and weaknesses, how weather conditions impact insecticide performance and how to use the [MSU Enviro-weather](#) website's weather information and tools to develop a successful integrated pest management (IPM) program to control SWD.

Even if you have attended SWD trainings in the past, this training will provide new information, helping you upgrade your IPM skills. You will be able to effectively manage SWD at your fields during the 2016 season.

For more information, contact Mary Frein at the [Ottawa County MSU Extension office](#) at 616-994-4540 or frein@anr.msu.edu.

MSU Extension programs and material are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status, or veteran status. Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities.

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>