



Ohio Fruit ICM News

In This Issue

Notes From the Editor..1

OPGMA Summer Field Day.....1

Brown Marmorated Stink Bug.....2-3

Apple scab.....4

Pawpaw Conference in Kentucky.....4

OSU Fruit Contacts...5-6

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OSUE Resources:
<http://ohioline.osu.edu/>

Selected Newsletters from OSU Extension:

Buckeye Yard and Garden Line:
<http://bygl.osu.edu>

OSU VegNet:
<http://www.ag.ohio-state.edu/~vegnet/>

OPGMA Summer Field Day

Notes from the editor: I would like to thank both Howard Siegrist and Melissa Swearingen for editing The Ohio Fruit ICM News in 2010 and 2011. Their dedication to OSU Extension and Ohio's fruit industry is greatly appreciated.

Many of you may not know me. I have been with OSU Extension for nearly 17 years now, 12 years in Clermont County and 4 and half years in Delaware County. In April, I turned a new chapter in my extension career by becoming a small fruit specialist with OSU South Centers.

Ohio Fruit ICM News has been a good service from OSU Extension. I will do my best to keep it going. Please email your articles, announcements, or comments to me at Gao.2@cfaes.osu.edu Refer to the list of OSU personnel if you have questions for us.

*Gary Gao, Ph.D.
Small Fruit Extension Specialist
and Associate Professor
OSU South Centers*

2011 OPGMA Summer Field Day:
Ohio Produce Growers and Marketer Association (OPGMA) announces its 2011 Summer Field Day. The date is June 22, 2011 and the program goes from 8 a.m. - 3 p.m.

Here is the information from OPGMA: "Join your peers for this educational and networking activity. Allied industry vendors will be sharing their newest equipment, packaging, chemicals, seeds, and services.

*Registration Information
\$25 for 1st company attendee
\$10 for each additional attendee
Early registration deadline is June 15.*

*Follow this link online
http://opgma.org/sites/default/files/summer_tour/11_Reg.pdf for a registration form. For additional information on attending or exhibiting at the OPGMA Summer Tour, e-mail opgma@ofa.org, or call 614-487-1117 or visit OPGMA online at www.opgma.org*



EMPOWERMENT THROUGH EDUCATION

Brown Marmorated Stink Bug – A New and Potentially Very Damaging Pest

• **Brown marmorated stink bug**, a pest on peaches, apples, grapes, sweet corn, tomatoes, peppers, other crops; is moving into Ohio from the east



Top side of an adult brown marmorated stink bug (photo by D. Shetlar).



Adults of the brown marmorated stink bug on a peach fruit (photo by G. Bernon).



Stink Bug Management on Fruit Crops

Dr. Celeste Welty, Extension Entomologist, The Ohio State University

Orchardists in Ohio need to be prepared to combat the brown marmorated stink bug, a new pest that caused devastating damage to peach and apple orchards in the mid-Atlantic region last year. We are not sure if this pest will be as serious a threat here as it was in West Virginia, Virginia, Maryland, and Pennsylvania, but it is prudent to be prepared. We know that many brown marmorated stink bugs were invading buildings throughout Ohio, particularly in southeastern Ohio, in September and October 2010. As these overwintering stink bugs move outdoors, and as more possibly migrate into Ohio from the east, Ohio crops will be at risk.

One of the key activities that orchardists can do this spring is frequent observation in the orchard as early as bloom and petal-fall, to try to detect stink bugs as soon as they arrive. Their arrival could be as early as April or as late as September. Work by entomologists in the mid-Atlantic region has included testing of traps. The type of traps that have been somewhat successful in detecting the new species of stink bug are blacklight traps and a tall black pyramid trap baited with a general stink bug aggregation pheromone. Stink bugs were often not found in traps until after they had been seen feeding on crops.

We will be testing several types of stink bug traps in Ohio this year, but we cannot rely on traps for first detection of the bug in an area.

There are insecticides that are effective at killing this new stink bug but unfortunately they are products that are not usually used in orchards where integrated pest management is practiced, because most of these products are harsh on beneficial insects. There is a limit to the number of applications that each of these products is allowed. Given that some orchards were sprayed up to 15 times for the stink bug in infested areas in 2010, it is important to be aware of the allowed limit on the effective products.

Over the past 3 months, a 'Section 2(ee)' label for control of the brown marmorated stink bug has been announced for six insecticides that were already registered for use on apple and/or peach. A 2(ee) label is for a recommended pest or use that was not specified on the existing full federal label. The recent 2(ee) labels are for Lannate, Carzol, Danitol, Thionex, Lorsban Advanced, and Cobalt. Cobalt is a relatively new product that is a pre-mix of chlorpyrifos (the a.i. in Lorsban) and gamma-cyhalothrin (the a.i. in Proaxis, a relative of Warrior).

Continue on next page

Continued from page 2:

Although there is limited information available about insecticide efficacy for this new stink bug species, work in the mid-Atlantic area has identified several insecticides that are most effective. These are listed below along with their limit per year, and pre-harvest interval. In addition, two other products that show promise for stink bug control but which do not list stink bugs as a target pest on the federal label or 2(ee) labels are: Supracide (methidathion) which can be applied only once only during the dormant or delated dormant season on apples and pears, and Malathion which is not allowed on apples but which is allowed in 3 applications on peaches with a 7-day PHI.

Brown Marmorated Stink Bug Control Options

Product	Apple		Peach	
	Number of applications allowed	pre-harvest interval	Number of applications allowed	pre-harvest interval
Lorsban Advanced (chlorpyrifos)	1	(dormant only)	1	(dormant only)
Cobalt (chlorpyrifos + gamma-cyhalothrin)	1	(dormant only)	1	(dormant only)
Carzol (formetanate HCl)	1	(not after petal-fall)	-	-
Lannate (methomyl)	5	14	6	4
Thionex (endosulfan)	2-3	21	2	30
Danitol (fenpropathrin)	2-4	14	2-4	3
Actara (thiamethoxam)	3-4	14/35	2	14
Belay (clothianidin)	1	7	2	21
Baythroid (cyfluthrin)	1	7	2	7

Trap Report For Fruit Crops in Wayne and surrounding Counties (May 3, 2011)

Ron Becker, Program Coordinator, Ag & IPM, OSU Extension, Wayne County

Peaches are pretty much in bloom, all the apples are pink to early bloom. Strawberries and blueberries are also starting to bloom. For the reports below, the traps were set out two weeks ago, checked last week and again this week. Codling moth (CM) numbers are an average of three traps per block, red banded leaf roller is per trap with one trap per orchard, and spotted tentiform leaf miner (STLM) is per trap with one trap per orchard. Traps were just put up this week in the peaches and grapes. One of the Wayne County blocks of apples showed spider mites that were red in color, though definitely not European red mite. I believe they were the predatory mite *Zetzellia mali*. Although, we did also find active two spotted spider mites in a field of Strawberries in Wayne County as well. Numbers were very low. Orange rust was also found on blackberries and raspberries. Pustules have just formed. The concern with strawberries as the blossoms start to open is getting on the fungicide to prevent gray mold.

Holmes County

CM (Codling Moth) - 0

RBLR (Redbanded Leafroller) - 0

STLM (Spotted Tentiform Leafminer) - 0

Wayne County

CM - 0

RBLR - 0

STLM - 70

Medina County

CM - 0

RBLR - 0

STLM - 0

Apple Scab

Apple scab is one of the most serious diseases of apple. Disease development is favored by wet, cool weather that generally occurs in spring and early summer. Both leaves and fruit can be affected. Infected leaves may drop resulting in unsightly trees, with poor fruit production. This early defoliation may weaken trees and make them more susceptible to winter injury or other pests. Infected fruits are blemished and often severely deformed. Infected fruits may also drop early.

Symptoms: Symptoms first appear in the spring as spots (lesions) on the lower leaf surface, the side first exposed to fungal spores as buds open. At first, the lesions are usually small, velvety, olive green in color, and have unclear margins. Lesions may appear more numerous closer to the mid-vein of the leaf. If heavily infected, the leaf becomes distorted and drops early in the summer. Trees of highly susceptible varieties may be severely defoliated by mid to late summer.



Apple scab lesions of apple leaves.

Fruit symptoms are similar to those found on leaves. The margins of the spots, however, are more distinct on the fruit. The lesions darken with age and become black and “scabby.” Scabs are unsightly, but are only skin deep. Badly scabbed fruit becomes deformed and may fall before reaching good size.



Apple scab lesions of apple fruit.

Control:

1. The use of resistant or scab immune varieties is the ideal method for controlling scab. Currently there are several apple varieties that are totally resistant to scab.
2. Rake and destroy fallen leaves.
3. Where resistance to scab is not present, fungicide application is the primary method of control. For the most current fungicide recommendations and spray schedules, commercial apple growers are referred to Bulletin 506-A2, Midwest Commercial Tree Fruit Spray Guide.

Sept. 9-10, 2011 “Pawpaw: Its Past, Present and Future, 3rd International Pawpaw Conference, Frankfort, KY.” The Conference will be limited to 180 attendees. Registration \$175 per person, preregistration deadline is August 1, 2011. The Conference will be sponsored by the Kentucky State University Land Grant Program, the Ohio Pawpaw Growers Association and the PawPaw Foundation. The Conference will feature “Pawpaws Around the World” (a discussion of national and international pawpaw variety trials), pawpaw processing and marketing advances, as well as talks and poster sessions about pawpaw research, extension, and entrepreneurial activities. The Conference will include a “Pawpaw Culinary Extravaganza” featuring pawpaw menu items from chefs, as well as other unique Kentucky cuisine. This Conference will be a unique experience for scientists, nurserymen, entrepreneurs, and enthusiasts to share information about the production and uses of pawpaw. In addition to presentations on pawpaw, the Conference will also offer an opportunity to taste pawpaw fruit and tour the Kentucky State University pawpaw orchards. The Conference will have a number of invited speakers; however, there will also be a poster session and show-and-tell session about pawpaw for participants. For registration information and conference updates see the website: <http://www.pawpaw.kysu.edu/3rdinternationalpawpawconference.htm>

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OSU's Fruit Contacts

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<p>David Marrison, County Director, Assistant Professor & Extension Educator for Agriculture & Natural Resources OSU Extension – Ashtabula County, 39 Wall Street, Jefferson, OH 44047</p>	<p>Phone: 440-576-9008 Email: Marrison.2@osu.edu</p>	<p>Grape production in northeaster Ohio.</p>

OGEN – Ohio Grape Electronic News

<http://www.oardc.ohio-state.edu/grapeweb/>

If you are a commercial grape grower or are thinking about getting into vineyard business, you can subscribe to Ohio Grape Electronic News by emailing Dave Scuclock at Scurlock.2@osu.edu

A little bit about me: Prior to joining OSU Extension, I worked at Purdue University for a short period of time. I received a Ph.D. and a master's degree in viticulture from The Ohio State University. I also have a BS in pomology from Shanxi Agricultural University in China. With my current job, I will focus on grapes, brambles, blueberries, and currants and gooseberries at OSU South Centers. It is very exciting for me to get back to my "old roots." I look forward to meeting you all! Gary Gao

Ohio Fruit ICM News is achieved online at:

<http://southcenters.osu.edu/horticulture/newsletters-and-publications/2008-ohio-fruit-icm-news/>

**If you have articles or events for possible inclusion in the upcoming issues of this Newsletter, please submit to:
Dr. Gary Gao at Gao.2@cfaes.osu.edu**

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