



Ohio Fruit ICM News

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Useful Websites:
OSU Extension Fact
Sheets and Bulletins:
<http://ohioline.osu.edu/>

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

Dr. Celeste Welty's Fruit
Page:
http://bugs.osu.edu/welty/Fruit_home.html

Notes from the editor:

How time flies when you have fun! Actually, time also goes by too quickly regardless of whether I have fun or not. I just need to find a few more hours in a day to make more things happen!

Our Southern Ohio Summer Grape Growing Workshop in August and "Grape and Wine Workshop – A Practical Approach" in November at OSU South Centers in Piketon were quite successful.

As we get ready to ring in 2012, here are my best wishes to all of our readers for a very happy and prosperous new year!

*Please email your articles, announcements, or comments to me at gao.2@cfaes.osu.edu
Gary Gao, Ph.D.
Small Fruit Extension Specialist and Associate Professor
OSU South Centers*

To be added to our Ohio Fruit News Listserv: email Julie Strawser-Moose at moose.14@cfaes.osu.edu

Review of Fruit Diseases in 2011 by Dr. Mike Ellis

The abnormally wet year resulted in a great deal of disease pressure.

Strawberries- wet, cool weather resulted in small berries that all ripened about the same time. Not so much disease, but poor quality and a short season.

Peaches- Peaches were great. Excessive rain (every day) in the spring resulted in little or no frost damage, therefore, most producers had a full crop of peaches. Most people had good to excellent control of brown rot by alternating effective fungicides. Indar still appears to provide good control if used in an alternating program.

Apples- Orchards had some frost damage in the spring, but most apple growers had a pretty good crop. Excessive wet weather made it a horrible scab year. I am proud of our growers. Most had very good scab control and some had



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Fruit Diseases continued:

way more scab than they should have. Excessive rain in the spring prevented many growers from making timely sprays for primary scab. Our growers are not using sterol inhibitors (except for Inspire Super or Indar) for scab control and we emphasize the use of protectant fungicides such as Captan or Mancozeb on a 7-day schedule for primary scab control. Fire blight was bad in some orchards and non-existent in others. Pennsylvania had the worst scab year they have ever had. They are trying to figure out what went wrong. Fungicide resistance had to at least be partially responsible.

Brambles- except for winter injury (especially in blackberry) brambles did pretty good. Orange rust continues to be a constant threat to blackberry and black raspberry production.

Grapes- despite a very wet spring, Southern Ohio seemed to do pretty good. One grower just north of Cincinnati has 60 acres of vinifera and hybrids. He says he has the best crop of grapes he has ever had. This was largely due to a good fungicide program. Northeast Ohio and the eastern US in general has had a very bad year for grapes. **SIMPLY TOO MUCH WATER** all season long and especially late in the season.

Most people who got their white grapes off as soon as they could have made acceptable wine from them. This is not the year to let them hang for high sugars. Sour rot is a very bad problem throughout the northeast. Some vineyards or specific varieties will not be harvested for wine this year due to sour rot. There has been a great deal of talk about the use of Potassium Metabisulfite for control of sour rot. I am trying to learn what I can about it, but it is hard for me to believe that it would work, especially after the rot begins.

Grape downy mildew was very bad and started early. Growers with good fungicide programs did a very good job of controlling it and those that did not had a lot of downy mildew.

Grape anthracnose is showing up at several locations across the state and I feel that it has become a significant problem. I have had vineyards at Snyder Farm, OARDC for 32 years and have never seen anthracnose in them. This year it was epidemic in all my vineyards. I plan to conduct fungicide trials next year for anthracnose. In one fungicide trial for black rot this year, Topguard (a sterol inhibiting fungicide) appeared to provide excellent control of anthracnose.

Insect Update by Dr. Celeste Welty, OSU Department of Entomology

As we began 2011, our concern for insect management was whether two new species would be present and damaging in fruit plantings: the brown marmorated stink bug and the spotted wing *Drosophila*. We had a grant to evaluate traps for stink bug monitoring in raspberries as well as in three vegetable crops (pepper, tomato, sweet corn). Only two out of 18 counties had any positive captures: Franklin County (Columbus in central Ohio), and Meigs County, in southwestern Ohio. We did see stink bug injury on apples in a research orchard in Columbus, but not all was due to the new species, based on collection of several species during harvest. In September we heard the first report of a fruit fly infestation in raspberries that was likely the spotted wing *Drosophila* but this has not yet been confirmed. Otherwise, the insect and mite problems in 2011 were typical of most years. Mites were more variable than usual; populations were very light in some orchards but heavy in others. We see an increasing trend of oriental fruit moth being found in more apple orchards. Quite a few of our growers are using pheromone mating disruption in combination with insecticides for insect management.



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A new insect pest: the Spotted Wing Drosophila

(Celeste Welty, OSU Dept. Entomology)

The spotted wing *Drosophila* looks a lot like the common vinegar fly that is found on overripe, fallen, or decaying fruit, in fields, compost piles, and kitchens. The common vinegar fly is also called a fruit fly, and is the same species used in genetics labs. The important difference between the common vinegar fly and the new species is that the new species attacks healthy ripening fruit that is still on the plant.

The spotted wing *Drosophila* has been known in Hawaii since 1980. It was detected in California in 2008, then in Florida, Washington, and Oregon in 2009. It was found in Michigan, North and South Carolina, and Utah in 2010. In 2011 it was detected in many more states. Our first confirmed detection in Ohio was in September 2011, from raspberries in VanWert County in northwestern Ohio.

The spotted wing *Drosophila* attacks a series of host plants. In early summer, it is found on cherries (Figure 1).



Figure 1. A cherry fruit with damage by the spotted wing *Drosophila*.

In mid-summer, it is found on raspberries and blueberries. In late summer, it is found on grapes. It can also be found on peaches, plums, strawberries, blackberries, tomatoes, kiwi, pears, and apples.

The spotted wing *Drosophila* damages fruit by egg laying and larval feeding. The fly lays its egg on fruit. The damage appears first as a tiny scar on the skin of fruit. The skin collapses in 2 to 3 days, and mold often begins to grow on the injured fruit. Larvae feed inside the fruit for 5 to 7 days, then pupate. Each adult female lays a total of about 350 eggs. There are many generations per year.

The spot on each wing that the species is named for is found only on males (Figure 2).



Figure 2. The spotted wing *Drosophila*, adult male.

Females of this species (Figure 3) can be separated from females of the common vinegar fly by characteristics of the ovipositor at the tip of the abdomen, as examined under a microscope. The species name is *Drosophila suzukii*.



Figure 3. The spotted wing *Drosophila*, adult female.

Management of the spotted wing *Drosophila* is by a combination of sanitation and insecticides. It is important to destroy leftover fruit. Growers in the Pacific Northwest are finding that Delegate and Malathion are the most effective at killing the pest and least disruptive to natural enemies.
(Continued on page 4)

The Spotted Wing Drosophila: ***(Continued)***

Diazinon, as well as pyrethroids such as Baythroid, Danitol, Mustang Max, Pounce, Asana, and Warrior are also being used. A rotation of Malathion and Mustang Max has been the choice of many growers. Imidan and Delegate have done well in Michigan trials. Because this pest attacks crops close to harvest time, growers must be mindful of the pre-harvest interval when selecting an insecticide product.

Several companies have issued 2(ee) labels to add the pest 'spotted wing Drosophila' as a recommended target pest, if the product was already registered for a crop. Products with these 2ee labels are Baythroid XL, Delegate, Mustang Max, Pounce, and Danitol.

It is possible to monitor for the presence of spotted wing Drosophila with bait traps. Bait traps can be made out of a clear plastic cup, hung on a wire hanger. The top of the cup should be covered to keep large insects from getting in. Holes that are one-quarter inch diameter need to be punched near the top to allow Drosophila to get in. Use apple cider vinegar as the bait, one inch deep.



Add a drop of dish soap as a surfactant. Place on the shady side of a fruit plant, 3-5 ft. above ground in orchards. Every week the trap contents should be dumped over a fine strainer, to discard the cider bait, and keep the trapped insects. The trap contents need to be examined to see if any spotted wing Drosophila were trapped. The threshold is capture of a single adult of spotted wing Drosophila. Beware that these traps can attract a wide range of flies and other insects, which must be sorted through. An alternative to home-made traps is now available; it is made by Contech and distributed via Great Lakes IPM. The Contech trap is small (about 6 ounce capacity), has just 2 openings, and has a red paper cover that is attractive to Drosophila (Figure 4).



Figure 4. A bait trap for spotted wing Drosophila, which uses apple cider vinegar as a bait, and is enhanced by red color.

Recent research on blueberries in Michigan showed that yeast plus sugar was a better bait in the early season than apple cider vinegar. Traps can be made slightly more attractive by placing a yellow sticky card inside the trap but these are more difficult to manage.

If you detect the spotted wing Drosophila in your Ohio crops, please alert the entomologists either directly or via local Extension educators.

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2012 OPGMA Congress

The 2012 **Ohio Produce Growers & Marketers Association Congress** is scheduled for January 16-18 in Sandusky, Ohio.

The OPGMA is also pleased to welcome the **North American Raspberry & Blackberry Association** as they hold their annual conference in conjunction with the OPGMA Congress.

In today's tough marketplace, you need every advantage to ensure your company's success. The OPGMA Congress and North American Raspberry & Blackberry Conference provide access to the answers you need to today's business challenges. Learn new concepts and techniques to grow your business, get market insights, and discover new business opportunities. Find everything you need for your business in one easy place. The OPGMA Congress and Raspberry & Blackberry Conference have one purpose: to help you succeed.

Please log on to the OPGMA's website for registration information:

<http://www.opgma.org/>

The time to act is now!



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OSU's Fruit Contacts

Name and Title	Phone, email and web	Expertise
Dr. Mike Ellis, Professor Dept. Plant Pathology 224 Selby Hall □ □ OARDC 1680 Madison Avenue Wooster, OH 44691	Phone: 330 □ 263 □ 3849 Email: ellis.7@osu.edu Website: www.oardc.ohiostate.edu/fruitpathology/	Tree fruit and small fruit disease control.
Dr. Roger Williams, Professor Dept. Entomology 202 Thorne Hall □ □ OARDC 1680 Madison Avenue Wooster, OH 44691	Phone: 330 □ 263 □ 3731 Email: williams.14@osu.edu Website: http://www.oardc.ohio-state.edu/newentomology/personnel/single.asp?strid=765	Small fruit insect and mite control
Dr. Doug Doohan, Associate Professor Dept. Hort. & Crop Science 205 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	Phone: 330-202-3593 Email: doohan.1@osu.edu Website: www.oardc.ohiostate.edu/weedworkshop/default.asp	Weed control in fruit crops
Dr. Imed Dami, Associate Professor & Viticulture State Specialist Dept. Hort. & Crop Science 216 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	Phone: 330-263-3881 E □ mail: dami.1@osu.edu Website: oardc.osu.edu/grapeweb/	Viticulture research and statewide extension & outreach programs. Recommendation on variety selection. Imed is the primary research contact of the viticulture program.
Dr. Diane Miller, Associate Professor Tree Fruit Specialist Dept. Hort. & Crop Science 203A Williams Hall 1680 Madison Ave. Wooster, OH 44691	Phone: 330-263-3824 Email: miller.87@osu.edu	Tree fruit research and Extension
Dr. Celeste Welty, Associate Professor and Extension Entomologist Extension Entomology Rothenbuhler Labs 2501 Carmack Rd. Columbus, Ohio 43210	Phone: (614) 292-2803 Email: welty.1@osu.edu http://bugs.osu.edu/welty/index.html	Tree fruit insect and mite control.

OSU's Fruit Contacts

Name and Title	Phone, email and web	Expertise
<p>Dr. Gary Gao, Small Fruit Specialist and Associate Professor OSU South Centers 1864 Shyville Rd. Piketon, OH 45661</p>	<p>E-mail: Gao.2@cfaes.osu.edu Website: southcenters.osu.edu/</p>	<p>Management of blackberries and raspberries, blueberries, currants and gooseberries, grapes, and strawberries.</p>
<p>David Scurlock, Viticulture Outreach Specialist 118 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691</p>	<p>Phone: 330-263-3825 Email: Scurlock.2@osu.edu Website: oardc.osu.edu/grapeweb/</p>	<p>Evaluation of site suitability for vineyard establishment and all aspects of grape production practices in northern Ohio. David is the primary extension contact of the viticulture program.</p>
<p>Dr Jozsef Racsko, Tree Fruit Coordinator and Outreach Specialist 205A Williams Hall OARDC-Wooster Wooster, OH 44691</p>	<p>Phone: (330) 263-3883 Email: Racsko.1@osu.edu</p>	<p>Tree fruit production</p>
<p>Brad Bergefurd, Horticulturist OSU South Centers 1864 Shyville Rd. Piketon, OH 45661</p>	<p>Phone: 740-289-2071, Ext. 136 Email: Bergefurd.1@osu.edu</p>	<p>Small fruit crops and wholesale produce auction development and operations.</p>
<p>Steve Prochaska, Extension Educator and Associate Professor, OSU Extension - Crawford County 112 E Mansfield St Bucyrus, OH 44820</p>	<p>Phone: 419-562-8731 Email: Prochaska.1@cfaes.osu.edu</p>	<p>Fruit production</p>
<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 the vineyard business, you can subscribe to the Ohio Grape Electronic News by emailing Dave Scurlock at Scurlock.2@osu.edu

Ohio Fruit ICM News is archived online at:

<http://go.osu.edu/ICMNews/>

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



This newsletter is edited by Dr. Gary Gao, Small Fruit Specialist and Associate Professor, OSU South Centers, 1864, Shyville Road, Piketon, OH 45661.

Phone: (740) 289-2071 ext. 123; **Fax:** (740) 289-4591;

Email: Gao.2@cfaes.osu.edu

Website: <http://southcenters.osu.edu/>



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Keith L. Smith, Ph.D., Associate Vice President for Agricultural Administration and Director, Ohio State University Extension
TDD No. 800-589-8292 (Ohio only) or 614-292-1868