

Ohio Fruit ICM News

Volume 16, Issue 4

May 15, 2012

The Ohio State University

Greetings from Gary

Dear Ohio Fruit Growers,
I get quite a few newsletters from different states and it appears that this year's spring frosts and freezes have devastated the fruit industry in Michigan. It is hard enough to read about these losses. I can only imagine how much tougher this devastation is on the grower.

Fruit damage reports for Ohio are slowly trickling in. Apple and grape crops had substantial damage along Lake Erie. This year, the "lake effect" actually did more harm than good. Many plants budded earlier and their flowers were severely damaged by the subsequent cold weather.

Apples, peaches, cherries and grapes suffered significantly along Lake Erie.

Going inland a little, there was damage to apple crops. An early "guesstimate" puts us in the ball park of 50% for an apple crop in the Geauga County area.

The apple crops in Central and Southern Ohio weren't hit as hard. Their crop loss might be around 5-10%, if any at all.

The blueberry crop fared well in Central and Southern Ohio. Although there was damage to flowers and stems on younger plantings, frost damages were much less severe on more mature plantings. It is hard to predict what the total yields will be since blueberries can



Dr. Gary Gao, Editor

compensate for few berries with much larger berries. Hence, the total yield may or may not change.

We want to know how your fruit crops survived this spring. Please email me if you would like to share your information.

Sincerely,

A handwritten signature in black ink that reads "Gary Gao".

Gary Gao, Ph.D.

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Berries in Bloom

By Dr. Gary Gao

In my home garden in Central Ohio, I have several Heritage red raspberry and Jewel black raspberry plants. They started blooming the first week of May and were in full bloom the week of May 6th. Some of my plants have set fruit and, so far, I have not seen much damage.

This is an important time for raspberry pollination so be sure to protect the bees. Research shows that bees are responsible for 90 to 95 percent of raspberry pollination and many insecticides recommended for the pre-bloom or post-harvest periods are highly toxic to bees and should not be used during bloom (Brambles—Production Management and Marketing—Bulletin 782-99).



Heritage Red Raspberry in bloom
Photo by Gary Gao May 10, near Columbus, OH

We have several mature Chester and Triple Crown blackberry plants at Piketon. Their attractive flowers started blooming on May 10th.



Chester Blackberry in bloom at OSU South Centers
Photo by Gary Gao

Triple Crown was also blooming on May 10th. Shown here is a picture of Triple Crown plant with an open flower and flower buds.



Triple Crown Blackberry in bloom at OSU South Centers
Photo by Gary Gao

Blueberries at Late Green Fruit Stage in Piketon

By Dr. Gary Gao

The fruits on the Blueray blueberry plants in the research plots at Piketon have reached the late green fruit stage. During this time, growth of large fruit slows, the fruit becomes pale green and exposed fruit may develop a red blush.

Michigan State University has an excellent growth stages table on their website. It contains photos of each stage and what to expect from the plant during this time. Follow this link for more information: http://blueberries.msu.edu/growing_blueberries/growth_stages_table

It is also time for growers to think about how to control bird damage. Netting, though very expensive, is

the most effective way to control bird damage. Bird scaring devices can help some. However, eventually birds will just get used to the loud noise and the device will lose its effectiveness.

For more information on blueberry production, go to <http://go.osu.edu/blueberry>.



*Blueberry in large green fruit stage at OSU South Centers
Photo by Gary Gao*

Introduction to Commercial Blueberry Production Workshop A Practical Approach

June 14, 2012

6:00 p.m. – 9:00 p.m.

OSU South Centers Endeavor Center Room 165
1862 Shyville Road, Piketon, OH 45661

\$10.00 per person

Download registration brochure and agenda at
<http://go.osu.edu/blueberry>

Jointly Presented By
Ohio State University Extension South Centers
Ohio Agricultural Research and Development Center
The Ohio State University



Apple Thinning

By Peter Hirst, Purdue University

It may seem strange that we're talking about apple thinning when most of the talk this season has been about crop loss. In a season like this when some growers have a partial crop, typically the crop will be in the top part of the tree with fruit borne in bunches.

It's not easy to contemplate thinning when you have a light crop, but if these bunchy fruit are not thinned, they will likely end up pushing each other off as they grow. At the same time, growers should be reluctant to thin too much in the top of the tree since crop is the best way to hold back excessive vigor.

If hand thinning in this situation, I'd suggest reducing triples to doubles. With 2 fruit per spur, fruit are less likely to push each other off later during fruit sizing, but hopefully the crop will help reduce strong vegetative growth.

Effect of Water Quality on Pesticides

By Bruce Bordelon, Purdue University

Water quality has a profound impact on the performance of pesticides used by fruit growers. Purdue Pesticides Program recently published a very nice guide, *The Impact of Water Quality on Pesticide Performance PPP-86*, available at the Education Store, 1-888-EXT-INFO or www.extension.purdue.edu/store/. I highly recommend this guide to all growers.

Fruit growers often apply a post-emergent herbicide beneath the tree or vine row in spring to control winter annuals and other weeds. A pre-emergent herbicide may be included in this application. Glyphosate (Roundup) is the most common post

The following articles appear in the May 8, 2012 issue of Facts for Fancy Fruit Purdue University

Full issues can be viewed at <http://www.hort.purdue.edu/fff/fff.shtml>

emergent systemic herbicide used in fruit crops. In order for glyphosate to be effective, it needs to be absorbed into the weed plant. In soft water, weeds readily absorb glyphosate. However, in hard water glyphosate will be 'tied up' and not absorbed as readily. Hard water, common in many parts of Indiana, contains high concentrations of soluble salts, calcium and magnesium. When these cations are present they react with the negatively charged glyphosate to form compounds that are not readily absorbed by plants. This results in poor uptake and poor weed control. The solution to the hard water problem is to add ammonium sulfate to the spray water before mixing with glyphosate. Ammonium sulfate ions tie up the calcium and magnesium ions forming conjugate salts. Additionally, some of the glyphosate reacts with ammonium to form a compound that some weeds preferentially absorb. Sprayable ammonium sulfate is available in granular and liquid formulations. Follow the label recommendations on the amount of ammonium sulfate to add.

Another problem associated with spray water quality is that many fungicides and insecticides break down quickly in high pH water. Captan, Imidan, malathion, and Omite are examples of compounds that are especially vulnerable to alkaline hydrolysis. Both the Midwest Tree Fruit and Small Fruit and Grape Spray Guides have a discussion of spray tank pH. Spray water can be acidified by adding a specific acidifiant, or with food-grade citric acid. About 2 ounces of food-grade citric acid per 100 gallons of water will lower the pH from about 8.0 to about 5.5.

OSU Fruit Specialists

Name and Title	Contact Information	Expertise
Brad Bergefurd Horticulture Specialist OSU South Centers 1864 Shyville Rd. Piketon, OH 45661	Phone: 740-289-2071, ext. 136 Email: bergefurd.1@osu.edu Website: http://southcenters.osu.edu/hort	Small fruit crops and wholesale produce auction development and operations.
Dr. Imed Dami, Associate Professor & Viticulture State Specialist Dept. of Hort. & Crop Science 216 Gourley Hall—OARDC 1680 Madison Avenue Wooster, OH 44691	Phone: 330-263-3881 Email: 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. Doug Doohan, Associate Professor Dept. of Hort. & Crop Science 205 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	Phone: 330-202-3593 Email: doohan.1@osu.edu Website: http://www.oardc.ohio-state.edu/weedworkshop/	Weed control in fruit crops.
Dr. Mike Ellis, Professor Dept. of Plant Pathology 224 Selby Hall—OARDC 1680 Madison Avenue Wooster, OH 44691	Phone: 330-263-3849 Email: ellis.7@osu.edu Website: http://plantpath.osu.edu/	Tree fruit and small fruit disease control.
Dr. Gary Gao, Small Fruit Specialist & Associate Professor OSU South Centers 1864 Shyville Rd. Piketon, OH 45661	Phone: 740-289-2071. ext. 123 Email: gao.2@osu.edu Website: http://southcenters.osu.edu/hort	Management of blackberries, raspberries, blueberries, currants, gooseberries, grapes, and strawberries.
Dr. Joseph Kovach Associate Professor, Entomology 138 Selby—OARDC Wooster, OH 44691	Phone: 330-263-3846 Email: kovach.49@osu.edu Website: http://ipm.osu.edu	Fruit IPM, high tunnels
David Marrison, County Director, Assistant Professor & Extension Educator for Agriculture & Natural Resources OSU Extension – Ashtabula County, 39 Wall Street, Jefferson, OH 44047	Phone: 440-576-9008 Email: marrison.2@osu.edu Website: http://ashtabula.osu.edu/	Grape production in northeast Ohio.

OSU Fruit Specialists

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Dr. Diane Miller, Associate Professor, Tree Fruit Specialist Dept. of 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.
Steve Prochaska, Extension Educator and Associate Professor, OSU Extension - Crawford County 112 E Mansfield St Bucyrus, OH 44820	Phone: 419-562-8731 Email: prochaska.1@osu.edu	Grape production in northeastern Ohio.
Dr Jozsef Racsko, Tree Fruit Coordinator & Outreach Specialist 205A Williams Hall OARDC-Wooster Wooster, OH 44691	Phone: 330-263-3883 Email: racsko.1@osu.edu	Tree fruit production.
David Scurlock Viticulture Outreach Specialist 118 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	Phone: 330-263-3825 Email: scurlock.2@osu.edu Website: oardc.osu.edu/grapeweb/	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.
Dr. Celeste Welty, Associate Professor & 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.
Dr. Roger Williams, Professor Dept. of Entomology 202 Thorne Hall II OARDC 1680 Madison Avenue Wooster, OH 44691	Phone: 330-263-3731 Email: williams.14@osu.edu Website: http://entomology.osu.edu/	Small fruit insect and mite control.

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News is archived
at**

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ICMNews](http://go.osu.edu/ICMNews)**

If you have articles or events for possible inclusion in upcoming issues of this newsletter, please submit them to:
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Subscribe to OGEN—Ohio Grape Electronic News—for the latest commercial grape growing and vineyard news by emailing:

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NOTE: Disclaimer - This publication may contain pesticide recommendations that are subject to change at any time. These recommendations are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used.

Due to constantly changing labels and product registrations, some of the recommendations given in this writing may no longer be legal by the time you read them. If any information in these recommendations disagrees with the label, the recommendation must be disregarded. No endorsement is intended for products mentioned, nor is

criticism meant for products not mentioned. The author and Ohio State University Extension assume no liability resulting from the use of these recommendations.

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