

# *Ohio Grape-Wine Electronic Newsletter*

David Scurlock, Viticulture Outreach Specialist  
Department of Horticulture and Crop Science  
Ohio Agricultural Research and Development Center  
1680 Madison Avenue  
Wooster, OH 44691-4096



[www.oardc.ohio-state.edu/grapeweb/](http://www.oardc.ohio-state.edu/grapeweb/)

## **31 December 2014 (39)**

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## 2015 Ohio Grape and Wine Conference Update

*by Dave Scurlock, OSU/OARDC Viticulture Outreach Specialist*

The link for the 2015 Ohio Grape and Wine Conference registration material can be found on the Ohio Grape Web or clicking on this link:

[http://www.oardc.ohio-state.edu/grapeweb/images/2015\\_Ohio\\_Grape\\_and\\_Wine\\_Conference\\_Registration.pdf](http://www.oardc.ohio-state.edu/grapeweb/images/2015_Ohio_Grape_and_Wine_Conference_Registration.pdf)

There have been some confirmations of additional speakers that were not in the first couple of mailings. One of the additional highlights is Hugh Fraser. Hugh Fraser is an Extension Agricultural Engineer employed by the Ontario Ministry of Agriculture, Food and Rural Affairs in Vineland, Ontario, Canada about 20 minutes from Niagara Falls. Recently, he teamed with others on a 4-year research project on wind machines to help protect grapes against cold injury and co-authored a factsheet on best management practices for using wind machines. Hugh will present some interesting information on Ontario's 15 years of experience with wind machines for cold injury protection of grapes in the Monday afternoon general session.

Hugh Fraser has authored factsheets on best management practices for using bird bangers and other bird control options. Currently, he is involved in two projects evaluating new options to help drive birds away from eating our precious horticultural crops. Hugh will present some of his work on wildlife control in the vineyard on Tuesday. Hugh is from a dairy farm, and has worked with horticultural growers across Ontario for over 25 years.

Matt Kleski, Key Program Specialist Production Adjustment, Compliance and Risk Management Programs Section in Ohio at FSA's State office is going to give an update in the general session on Monday afternoon on the TAP and NAP assistance programs. Deadlines for NAP are approaching fast so be sure to contact your local or state office for more information. Visit [http://www.oardc.ohio-state.edu/grapeweb/images/OGEN20141219\(38\).pdf](http://www.oardc.ohio-state.edu/grapeweb/images/OGEN20141219(38).pdf) FSA has been very helpful to many growers in providing information and financial assistance in the aftermath of the 2014 Polar Vortex. Matt Kleski manages and directs the administration of disaster assistance programs, payment eligibility and limitations, compliance and risk management programs. Matt graduated from The Ohio State University in 2001 with a B.S. Degree in Agriculture with a major in Animal Science and a minor in Agribusiness and Applied Economics. Upon graduation, he was employed as the Director of Communications and Promotions for the Ohio Cattlemen's Association and the Ohio Beef Council. In 2004, he graduated from West Virginia University with a Master's Degree in Agricultural and Environmental Education, where he also worked for WVU Extension, Risk Management.

James B. Belt, is the Agriculture Inspection Manager for Plant Health. James Belt will deliver what I think will be a very interesting presentation on Pesticide investigations, the new fertilizer certifications and the sensitive crop registry. If you grow grapes all of these topics are extremely

important. This presentation will occur on Tuesday afternoon and Jim has indicated that he will leave time at the end of his presentation for questions.

A panel of your peers? During the Tuesday afternoon session we have a grower panel composed of three Ohio grape growers who will give their experiences with winter damage from the Polar Vortex. This is an excellent time to listen and join in on the discussion of what each of these growers experienced and what they are going to do to recover from last winter's damage to the vineyards. The panel will be composed of Nick Ferrante of Ferrante Winery, Seth Merranda of Meranda-Nixon and Walter Borda of Caesar Vineyards and Lee Klingshirn of Klingshirn Winery. Come and listen, learn and ask questions. The winter of 2014 had a devastating impact on all of our vinifera vines and even some of our usually reliable French hybrid vines. Come and add some of your own experiences in your vineyard to the panel discussions. What worked, what didn't and what next?

Dr. Jodi Creasap Gee, Program Director, V&E Program, Kent State University Ashtabula and crown gall specialist will deliver a presentation on "Crown gall: Biology of disease and how we attempt to manage it." Dr. Gee first became interested in grapes from her grandfather, Dr. Tom Quilter, grape grower, winemaker and owner of Shamrock Vineyards in Waldo, Ohio. Dr. Gee said she grew up working with the hybrid varieties which grew surprisingly well there; although admittedly in a location I would now likely discourage a grower from planting a vineyard. The crown gall that regularly affected the Chancellor vines always fascinated me, and as I learned more about the disease, I developed an interest in plant pathology. For my Ph.D, I studied crown gall on grape in Dr. Tom Burr's lab at the New York State Agricultural Experiment Station in Geneva and learned that the more we discover about it, the less we really know!

For those looking to open a winery and those who have recently established one on Sunday, Donniella Winchell, Executive Director of the Ohio Wine Producers is offering the 2015 Wine Conference Preview Day: Sit, Sip and Learn. The goal is to provide information and resources to assist in developing a strong and viable winery business. Registration for this event is available on line at [www.ohiowines.org](http://www.ohiowines.org) or by calling 800-227-6972. Information can also be obtained at [http://www.oardc.ohio-state.edu/grapeweb/images/OGEN20141218\(37\).pdf](http://www.oardc.ohio-state.edu/grapeweb/images/OGEN20141218(37).pdf)

**Extra Notes:** 2015 Ohio Grape and Wine Conference

- Early bird prices are effective only on or before January 30
- There are many options so be sure you have chosen what you really want
- Rooms fill up fast, Book early and mention The Ohio Grape and Wine Conference to get special rates

# Prepare For The Bagrada Bug

*Source: American Vegetable Grower*

By: [Rosemary Gordon](#) | December 5, 2014

The bagrada bug has made quite the intercontinental trek, originating in Africa and now making its presence known in California. Growers in the Golden State are becoming more familiar with this exotic pest — and none are too happy about it. It was responsible for extensive crop damage this year.

In Arizona, the bagrada bug is well established and is seen annually in cauliflower, broccoli, and other cole/brassica crops. It was first identified in Los Angeles, CA, in 2008, but really hasn't been an issue for California growers until this year.

According to Surendra Dara, strawberry and vegetable crops advisor and affiliated IPM advisor at the University of California Cooperative Extension, [the bagrada bug, which is a type of stink bug](#), has been reported in virtually all counties in Southern California and continues to move north.

In addition to brassicas, this year, damage was reported in California on carrots, corn, potatoes, sunflower, and tomatoes — among other hosts, which also includes several weed species. [In a recent report, Dara says the pest was also found in strawberries and grapes but it may have been seen there as it was moving to find suitable food sources.](#)

Researchers and pest control advisors (PCAs) alike say the population of the pest has greatly increased in the state. Dara says it is mainly a problem in the spring and again in the fall but but it depends on climatic conditions.

Weather may be contributing to the pest's proliferation, he says. When warmer temperatures prevail, so do the bugs.

“Dryer and warmer winter and spring conditions than previous years might have contributed to higher numbers and wider distribution of the pest this year,” he adds.

## A Dangerous Pest



The bagrada bug has been wreaking havoc for Western growers producing cole crops.  
Photo credit: John Palumbo

What makes the bagrada bug such a hazard in the field? Numbers, speed, and the extent of damage, Dara says.

“In some cases, they move to cultivated crops in large numbers in a short time and require a prompt management response,” he explains. “When the weed hosts in the wild dry out and bagrada bugs move to crop fields in large numbers, it becomes very difficult to manage them. Depending on the stage of the crop and the number of bugs, damage can be anywhere from a nuisance to complete loss of crop.”

Drilling down to damage specifics, John Palumbo, an entomologist with the University of Arizona, says the bagrada bug infests brassica crops at stand establishment.

“It can cause damage by outright killing newly emerged seedlings, or by feeding on the apical meristem (terminal growth) of established seedlings. This feeding damage results in a plant that will not produce a marketable crown or head. On head-forming brassicas, once the plant grows to the six-leaf stage or larger, susceptibility to feeding damage in the field is negligible. However, on leafy brassicas (kale, arugula, etc.) cosmetic damage on leaves can occur season long.”

Unlike in California, however, Palumbo says the situation with the pest is actually becoming better in the desert Southwest because PCAs and conventional growers have learned how to effectively manage the bug with minimal damage.

“They are achieving this by using effective insecticides in a very aggressive manner and properly timing the applications to minimize plant exposure to the pest,” he says.

### **The Organic Side**

Conventional growers may have several tools in their collective toolbox to help control this pest, but that is not the case for organic producers.

“In an organic production system [bagrada bug] is very difficult to control with the tools we have,” explains Jim Wilkinson, a PCA and a certified crop advisor in Hollister, CA, who manages about 1,200 total acres, with organic brassica crops included in his portfolio.

The good news, according to PCA Charles Nieto, who covers organic acreage in Monterey and San Benito counties for Nieto Ag Consulting, is feeding doesn’t occur on every plant. The bad news is you may get up to 10% to 15% unmarketable heads of broccoli or cauliflower from one field. Nieto says the number of unmarketable heads he has seen in one field has been as high as 20% to 25%.

Bagrada feeding has been a big problem in spring mix, and Nieto says he has lost some acreage due to the pest chewing on the plants’ delicate leaves. The bagrada bug creates a “starburst” pattern on leaves when it feeds on spring mix and, as a result, he has lost areas of fields with mizuna, arugula, baby kale, and red and green mustards.

He also says populations have been so scattered that he will see huge numbers of the pest on one side of the Salinas Valley and about a quarter of that population on the other side.

“This could be because the area with the larger population is closer to the host plant on one side of the valley versus the other,” Nieto says. “Every field you go to is different in terms of the bagrada population.”

### **Control Options For 2015**

Although there are a limited number of tools for organic producers, they do have some options. One cultural control Nieto has been using to keep the pest out of the main crop is the use of a trap crop, specifically sweet alyssum, which typically serves as a beneficial habitat.

He says sweet alyssum is “like candy to the bagrada bug. They will go for that before they go to anything else. We did 1/16 of an acre on one end of a field to use as a trap crop, and I found many bagrada bugs were in the trap crop. Unfortunately, I still found them in the cole crop, though.”

As several weeds are hosts to this pest, it is critical to keep an eye out for specific weed pests such as shepherd’s purse, which also happens to be the biggest weed problem in the Salinas Valley, Nieto says. Keeping the area surrounding brassica crops clear of weeds will help keep bagrada bug out, but comes with a high price tag as weeding is expensive, he adds.

Focusing on specific tools to combat this pest, Dara says he has been conducting some laboratory studies using various microbial, botanical, and other non-chemical alternatives.

“The entomopathogenic fungus, *Beauveria bassiana* (Mycotrol-O, BioWorks) appeared to be better than everything else,” he says. “Some growers have indicated that azadirachtin, a botanical insect growth regulator from neem seed, worked well against nymphs, but I haven’t evaluated it myself. Insecticidal soaps may also have potential. Since this is a difficult pest, using a variety of good tools in combination or rotation is always an important strategy.”

Wilkinson has addressed the problem by using short spray intervals using contact material.

“I have been doing preventive sprays, using short intervals between each spray, containing combinations of contact organic pesticides such as M-Pede (Gowan Company) and PyGanic (MGK) as well as Grandevo (Marrone Bio Innovations). This approach has helped suppress bagrada bug populations.”

On the conventional side, the University of Arizona’s Bagrada Bug Management Tips 2014 indicate that contact insecticides provide the most effective control during stand establishment. Soil-applied neonicotinoids and diamide insecticides don’t adequately prevent feeding damage to newly transplanted or emerging seedlings.

Once stands have become established, growers should use foliar sprays with pyrethroids (e.g., bifenthrin, Lambda cyhalothrin), chlorpyrifos, methomyl, and neonicotinoids (Venom, Valent U.S.A. and Scorpion, Gowan Co.), which can provide effective adult control. (To read more on bagrada bug management tips, go to <http://bit.ly/1ydZYnw>.)

### **Advice For Growers**

As to be expected, the best way to tackle a pest problem is to learn as much as you can about it — in advance.

“Knowing as much as possible about the pest, its biology, vulnerable stages of crops and the pest, and available control options is always very important,” Dara says. “Crop rotation, weed management, avoiding non-crop plants that attract bagrada bugs, regular scouting, timely control with mechanical, chemical, or organic solutions are some of the options.”



## 2014 in the Rear View Mirror

by Dave Scurlock, OSU/OARDC Viticulture Outreach Specialist

The Polar Vortex of 2014 killed our vinifera vineyards to the ground. I do not know of anyone in the State of Ohio who harvested vinifera grapes. French hybrids fared a little better but even the reliable Vidal crop and vines were heavily damaged. American varieties along with the Minnesota cold hardy varieties were the only highlights of 2014. Most Concord yields normal and Minnesota varieties such as LaCrescent and Frontenac begged to ask the question “what’s a Polar Vortex?”

Let’s take a quick look at the weather around the state. There were multiple subzero events around the state. In Table 1 you can choose a quadrant in Ohio that is closest to your location to make your own approximate comparisons. The winter damage this year was statewide. The northwest quadrant of Ohio did record the coldest temperature of -22.6<sup>0</sup>F on February 12 2014.

The winter damage was more severe in 2014 than in previous years due to the sudden temperature drops in January after experiencing a fairly warm 2013 December. The cold hardiness of a vine is a dynamic event. The vine is continually fluctuating in hardiness depending on the weather and when you get a sudden drop in temperature and the subzero temperatures remain for hours in duration you start to see damage to the vines. Damage can be detected on the buds first and then the phloem and xylem.

**Table 1 2014 Sub Zero Winter Temperatures**

Location	Date Jan 7	Date Jan 28	Date Feb 8	Date Feb 12	Date Feb 17
<b>*NE Ohio</b>	<b>-3.5<sup>0</sup> F</b>	<b>-10.1<sup>0</sup> F</b>	<b>-5.7<sup>0</sup> F</b>	<b>-14.7<sup>0</sup> F</b>	<b>-14.6<sup>0</sup> F</b>
<b>*Wooster</b>	<b>-11.3<sup>0</sup> F</b>	<b>-12.2<sup>0</sup> F</b>	<b>-4.2<sup>0</sup> F</b>	<b>-11.7<sup>0</sup> F</b>	<b>-5.4<sup>0</sup> F</b>
<b>NW Ohio</b>	<b>Jan.3 -12.3<sup>0</sup>F Jan.6 &amp;7 -15.7<sup>0</sup>F</b>	<b>-13.5<sup>0</sup>F</b>	<b>-10.9<sup>0</sup>F</b>	<b>-22.6<sup>0</sup>F</b>	<b>-2.4<sup>0</sup>F</b>
<b>S Ohio</b>	<b>Jan 6 &amp; 7 -5.9<sup>0</sup>F &amp; - 7.7<sup>0</sup>F</b>	<b>Jan 22 &amp; 24 -8.9<sup>0</sup>F &amp; - 4.2<sup>0</sup>F</b>	<b>Jan 28 -12.1<sup>0</sup>F</b>	<b>Jan 29 -15.1<sup>0</sup>F</b>	<b>Jan 30 -6.5<sup>0</sup>F</b>

\*Kingsville and Wooster had similar cold date events. NW & S marked accordingly

Comparisons of the growing conditions across the state are exhibited in table 2. I have included the 10 year average and you can see that in most every parameter we were below the 10 year average. I was surprised to see that we were below the 10 year average in all cases except Southern Ohio. When I think back on 2014 I will generalize it by saying it was a cool wet year.

Table 2 April 1 through October 31 Weather Data Location Comparisons 2004-2013 vs. 2014

Location	10 year Ave. Prec.in.	2014 Ave. Prec.in.	10 year Ave. Min. °F	2014 Ave. Min. °F	10 year Ave. Max. °F	2014 Ave. Max. °F	10 year Ave. GDD	2014 GDD
NE Ohio	25	23	52	51	71	70	2703	2400
NW Ohio	23	19	53	52	76	74	3152	2917
Wooster Ohio	25	24	52	52	74	73	2914	2755
Southern Ohio	20.4	22	54	53	78	77	3417	3170

**Disease** in the vineyard was complicated with the cool wet season and the bunching of the suckers. Downy mildew was evident but I think growers did a good job. A good preventative spray program along with proper timing of the sprays is the best recommendation for 2015.

**WEEDS** were another problem in 2014 because most growers were training up suckers to replace the winter killed trunks. Hopefully we can get a better handle on our weed problem in 2015. The herbicides Cheetah and Rely should be more abundant in 2015 for use as a contact herbicide.

**Insects** were problematic in certain areas of Ohio. In the northwest quadrant the MALB and the Japanese beetle caused noticeable damage. Although surrounding states were reporting infestation of the SWD, without crops on most vineyards, they were not of a concern. Wasps were reported as causing damage to those vineyards that had fruit. Trapping should be a part of your insect spray program. These new invasive insects need to be trapped and identified so we do not waste time and money on insect sprays.

## OSU Grape & Wine Research & Outreach Specialist

Please contact the following Research, Extension/Outreach Specialists, and Educators if you have any questions relating to their respective field of expertise.

Name & Address	Contact Information		Area of Expertise & Assistance Provided
	Phone	Email & Website	
Dr. Mike Ellis, Emeritus Professor Dept. Plant Pathology 224 Selby Hall -- OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3849	E-mail: <a href="mailto:ellis.7@osu.edu">ellis.7@osu.edu</a> *After Dec. 1 2014 Website: <a href="http://www.oardc.ohio-state.edu/fruitpathology/organic/grape/index">www.oardc.ohio-state.edu/fruitpathology/organic/grape/index</a>	Grape diseases and control. Recommendation on grape fungicides
Dr. Celeste Welty Dept. of Entomology Columbus, Ohio	614-292-2803	E-mail: <a href="mailto:welty.1@osu.edu">welty.1@osu.edu</a>	Fruit and vegetable Insects
Dr. Doug Doohan, Professor Dept. Horticulture & Crop Science 205 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-202-3593	E-mail: <a href="mailto:doohan.1@osu.edu">doohan.1@osu.edu</a> Website: <a href="http://www.oardc.ohio-state.edu/weedworkshop/default.asp">www.oardc.ohio-state.edu/weedworkshop/default.asp</a>	Vineyard weeds and control. Recommendation on herbicides
Dr. Imed Dami, Associate Professor & Viticulture State Specialist Dept. Horticulture & Crop Science 216 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3882	E-mail: <a href="mailto:dami.1@osu.edu">dami.1@osu.edu</a>  Website: <a href="http://oardc.osu.edu/grapeweb/">oardc.osu.edu/grapeweb/</a>	Viticulture research and statewide extension & outreach programs. Recommendation on variety selection. Imed is the primary research contact of the viticulture program.

Name & Address	Contact Information		Area of Expertise& Assistance Provided
	Phone	Email & Website	
David Scurlock, Viticulture Outreach Specialist 118 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3825	E-mail: <a href="mailto:scurlock.2@osu.edu">scurlock.2@osu.edu</a> Website: <a href="http://oardc.osu.edu/grapeweb/">oardc.osu.edu/grapeweb/</a>	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
Todd Steiner, Enology Program Manager & Outreach Specialist Dept. Horticulture & Crop Science 118 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3881	E-mail: <a href="mailto:steiner.4@osu.edu">steiner.4@osu.edu</a> Website: <a href="http://oardc.osu.edu/grapeweb/">oardc.osu.edu/grapeweb/</a>	Commercial wine production, sensory evaluation, laboratory analysis/setup and winery establishment. Todd is the primary research and extension contact of the enology program
Dr. Gary Gao , Small Fruit Specialist and Associate Professor, OSU South Centers 1864 Shyville Road, Piketon, OH 45661  OSU Campus in Columbus Room 256B, Howlett Hall, 2001 Fyffe Ct Columbus, OH 43201	740-289-2071 ext.123  Fax:740-289-4591	E-mail: <a href="mailto:gao.2@cfaes.osu.edu">gao.2@cfaes.osu.edu</a>  Website: <a href="http://southcenters.osu.edu/">http://southcenters.osu.edu/</a>	Viticulture Research and Outreach, VEAP visits in southern Ohio, vineyard management practices, soil fertility and plant nutrition, fruit quality improvement, variety evaluation, table and wine grape production
Greg Johns, Station Manager Ashtabula Agricultural Research Station 2625 South Ridge Road Kingsville, OH 44048	440-224-0273	E-mail: <a href="mailto:johns.1@osu.edu">johns.1@osu.edu</a>  Website: <a href="http://www.oardc.ohio-state.edu/branches/branchinfo.asp?id=1">www.oardc.ohio-state.edu/branches/branchinfo.asp?id=1</a>	Winegrape production in Northeast Ohio, especially <i>vinifera</i> varieties

<b>Contact Information</b>			<b>Area of Expertise &amp; Assistance Provided</b>
<b>Name &amp; Address</b>	<b>Phone</b>	<b>Email &amp; Website</b>	
David Marisson, County Extension Director, Associate Professor & Extension Educator, OSU Extension-Ashtabula County 39 Wall Street Jefferson, Ohio 44047	440-576-9008 Ext. 106	E-mail: <a href="mailto:marrison.2@osu.edu">marrison.2@osu.edu</a>  Website: <a href="http://ashtabula.osu.edu">ashtabula.osu.edu</a>	Vineyard and winery economics, estate planning and Extension programs in Northeast Ohio