Ohio Grape–Wine Electronic Newsletter

Editor: Christy Eckstein, Executive Director,
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www.findohiowines.com
www.oardc.ohio-state.edu/grapeweb/

Content:

31 May 2018 (5)

Ohio WINES Grown Here

The Ohio State University
College of Food, Agricultural, and Environmental Sciences

By Diane Kinney and Imed Dami, HCS-OSU (Photos by Diane Kinney)

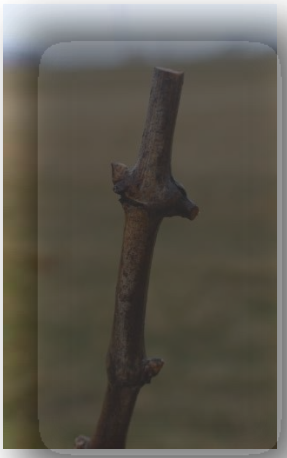
Grape Phenology:

In Wooster, once bud break began it was completed in a hurry. All of our Wooster varieties recorded a 50% bud break date within 4 days of one another between the dates of May 3-7 (see Table below). Shoot growth in our Cabernet franc as of May 29th is roughly 12-18 inches and is at pre-bloom stage.

2018 Bud break dates and corresponding GDD of varieties grown at the research vineyard in Wooster.

Variety	50 %BB	GDD 1 Jan - BB	GDD 1 Apr - BB
Arandell	4-May	137	109
Aromella	4-May	137	109
Cabernet franc	7-May	175	147
Chambourcin	7-May	175	147
Chardonnay	4-May	137	109
Frontenac	3-May	117	90
Frontenac gris	6-May	163	136
La Crescent	5-May	154	127
Marquette	5-May	154	127
Riesling	7-May	175	147
Sauvignon blanc	7-May	175	147
Traminette	7-May	175	

Phenology progression of Cabernet franc:



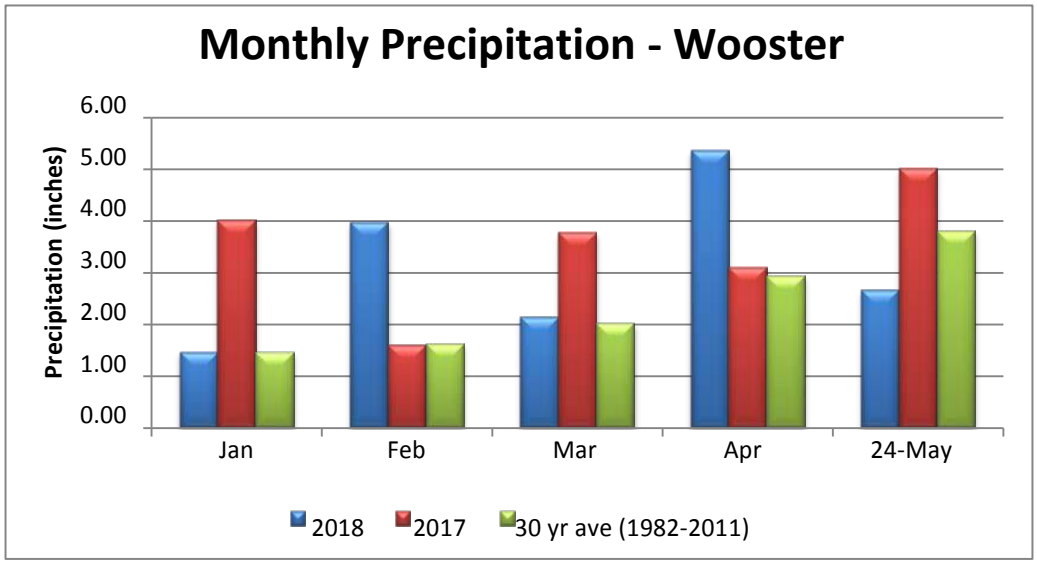
. Cab franc **(29 Mar 18)**

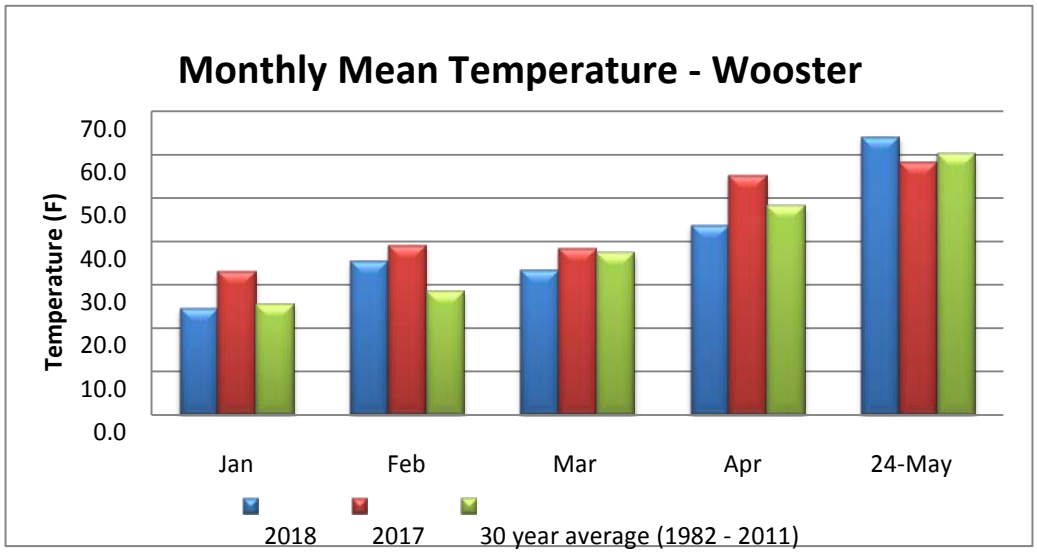
Cab franc **(25 Apr 18**)

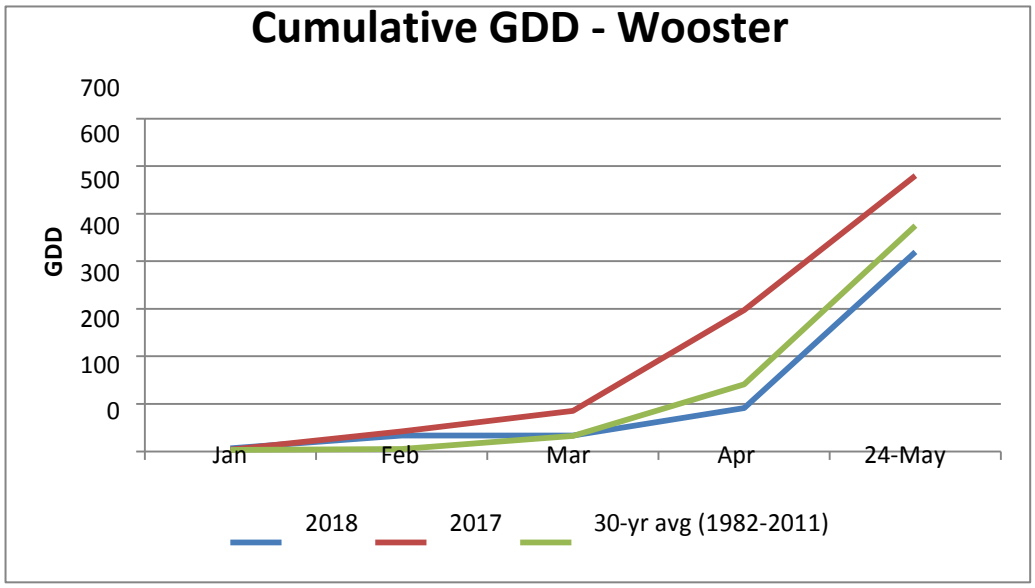
Cab franc (**29 May 18**)

Weather Conditions:

In Wooster, we have had a rather dry month ending over an inch below the long term average. We remain well over cumulatively though by nearly 4" due to a couple of wet months earlier in the year. The month of May has been slightly warmer than the norm. However, cumulative growing degree days (GDD) are still well below the long term average (419 vs 475). By mid-May, we have past the threat of spring frost. We hope our adjusted pruning (after bud injury back in January) will bring the yields of all varieties back to normal. We will find out by harvest time.


Monthly Precipitation - Wooster
Precipitation (inches)
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Jan
Feb
Mar
Apr
24-May
2018
2017
30 yr ave (1982-2011)


Monthly Mean Temperature - Wooster
Temperature (F)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Jan
Feb
Mar
Apr
24-May
2018
2017
30 year average (1982 - 2011)



Cultural Practices:

Final pruning of all varieties was completed the first week of May and prior to 50% bud break. We practiced double pruning of some varieties with early budbreak. We then moved on to dehilling of vinifera blocks by mid-May. Growth has been fairly rapid and we also began trunk suckering (see video on the practice of suckering: https://ohiograpeweb.cfaes.ohio- state.edu/video) across the vineyard along with training of our younger vines during this same time frame. As of May 25th, three sprays have been applied to the vineyard. We have also completed a new planting of table grapes and advanced breeding selections of cold hardy wine grapes.

AARS Vineyard Update

May 16, 2018

Andy Kirk, Research Specialist, Ashtabula Agricultural Research Station

Spring has finally come to Ashtabula and the vineyard is awake. Bud break, for most varieties, happened very quickly after the heat wave experienced in early May. It has since cooled down dramatically, to the extent that, as of the 16th of May, many varieties (Pinot Gris, Cab Franc, many others in our variety trial) are showing incomplete bud break. On the subject of uneven patterns, one thing we are monitoring at the research station is the varied aftermath of the January cold snap which brought temperatures of approximately -8F to our vineyard.

Based on our dissection work over the winter, it is fair to say that some particularly tender varieties experienced heavy primary bud damage. Many of these varieties were obscure and not of major significance to the Ohio grape industry. For most of our commercially significant *vinifera* varieties, such as Pinot Noir, Cab Franc, and Pinot Gris, we are not expecting significant crop loss. In addition to the bud damage, Yvonne and I have observed that the quality of pruning wood has been poor in many varieties this year. Cold injury is a complex topic, and if you are interested in the learning more, I do recommend a copy of *"Winter Injury to Grapevines and Methods of Protection"*, by Dr. Tom Zabadal and a group of collaborators including OARDC's Dr. Dami.

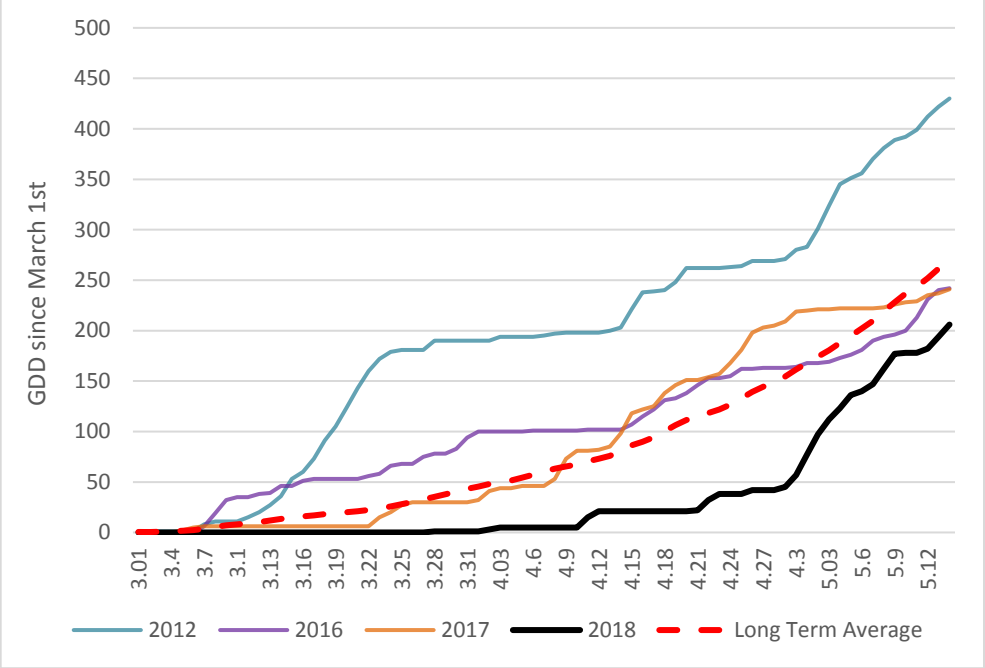


Figure 1: Spring GDD at AARS.

Aside from the cold winter, the cool spring (Figure 1) has been the other main topic of conversation in the Northeast Ohio grape world. AARS experienced its second coldest April in more than 30 years of temperature records. Despite that, we had a relatively on time bud break due to the spike in temperatures during the first week of May. I have listed bud break dates from recent years (Table 1) to highlight what a quick jump it was from dormancy to active growth. Note that in most years, bud break will occur at a point over 200 cumulative GDD in Kingsville. After a series of 80 degree days in early May, many varieties decided to come out and feel the warmth, despite a low total GDD accumulation. We had a very similar pattern in 2011, with a very cold April followed by a series of very hot days in late April and early May, which was enough to onset bud break.

Table 1: Historical Bud Break Information (AARS)

Year	Pinot Noir 50 % Bud Break Date	GDD after March 1st
2009	May 7th	216
2011	May 11th	179
2012	May 3rd	324
2013	May 6th	206
2016	May 18	255
2017	May 1st	220
2018	May 10	178
Combined Average	**N/A**	**225**

We are trying a few new things at the Research Station this spring. You may have heard mention of the practices known as "under vine" and "inter row" cover cropping. These are receiving a lot of attention in the grape research world at the moment. In some instances, when applied correctly, these techniques can improve soil nutrition (Sternwerth and Belina 2008), control vine vigor (Centinari et Al. 2016), prevent soil erosion (Battany and Grismer 2000), and support balanced insect populations (Nicholls et Al. 2000). However, a complex series of interactions governs how a particular species of cover crop interacts with vines in your row in your climate with your terrain. The purpose of our demonstration plot, which will be highlighted at the Northeast Ohio Grape and Wine Field Day (July 19, 2018) is to facilitate dialogue with the growing community about the practical aspects of vineyard cover-cropping such as application timing, equipment setup, and species selection.

Also different this spring, we tried some new measures aimed at reducing vineyard pathogen inoculum. During the early spring, I applied a sulforix spray (commercial formulation of lime sulfur) with our CO2 sprayers. In our small vineyard, CO2 sprayers from BellSpray Inc. were an excellent fit as they allowed a small, but targeted output of product. I was particularly interested in reducing Phomopsis inoculum, as I have found the logistics of early season spraying to be difficult with 30 varieties at various stages of bud break at the research station. Sulforix and Lime sulfur are very corrosive chemicals, and can also be damaging to the plant when used incorrectly. Please contact Dr. Melanie Lewis Ivey for guidance on formulating your own spray program.

Figure 2: Middle Row Cover Crop in Tasmania. Photo Credit: Stefano Lubiana, Creative Commons License, via Flickr

As another measure to reduce disease inoculum, we tried raking our pruning cuttings out of the vineyard with a three point hitch raking implement. This was a good idea which I borrowed from Joe Juniper of Vermilion Valley Vineyards (Figure 3). In the past, I have "mulched" cuttings in the row with a brush hog mower, but I have been less than satisfied with the effectiveness of that approach, as it leaves many canes less than fully mulched. While the raking approach was certainly more feasible than removing cuttings by hand, it was still rather time intensive to do a thorough job. We will keep striving next year to improve our approach to vineyard sanitation at pruning season.

Figure 3: Tractor Operator Raking Grape Canes. Photo Credit: Joe Juniper, Vermilion Valley Vineyards

References

Battany, M. C., & Grismer, M. E. (2000). Rainfall runoff and erosion in Napa Valley vineyards: effects of slope, cover and surface roughness. *Hydrological processes*, *14*(7), 1289-1304.

Centinari, M., Vanden Heuvel, J. E., Goebel, M., Smith, M. S., & Bauerle, T. L. (2016). Root- zone management practices impact above and belowground growth in Cabernet Franc grapevines. *Australian journal of grape and wine research*, *22*(1), 137-148.

Nicholls, C. I., Parrella, M. P., & Altieri, M. A. (2000). Reducing the abundance of leafhoppers and thrips in a northern California organic vineyard through maintenance of full season floral diversity with summer cover crops. *Agricultural and forest entomology*, *2*(2), 107-113.
Steenwerth, K., & Belina, K. M. (2008). Cover crops enhance soil organic matter, carbon dynamics and microbiological function in a vineyard agroecosystem. *Applied soil ecology*, *40*(2), 359-369.

OSU South Centers Piketon - May Vineyard Update 2018

By Ryan Slaughter, Research Assistant- South Centers (Photos by Ryan Slaughter)

Grape Phenology:

In Piketon, all grape varieties are either in pre-bloom or bloom stage. As of May 24th we had accumulated 745 Growing Degree Days (GDD). By this time in 2017, we had accumulated 876 GDD; our historical average is 697 GDD.

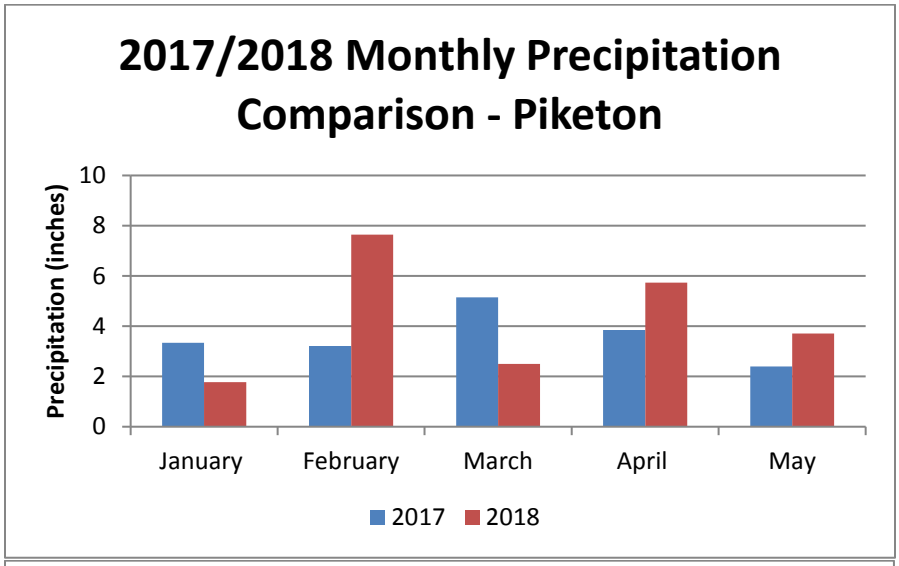
Figure 4 Traminette Block (24 May 18)

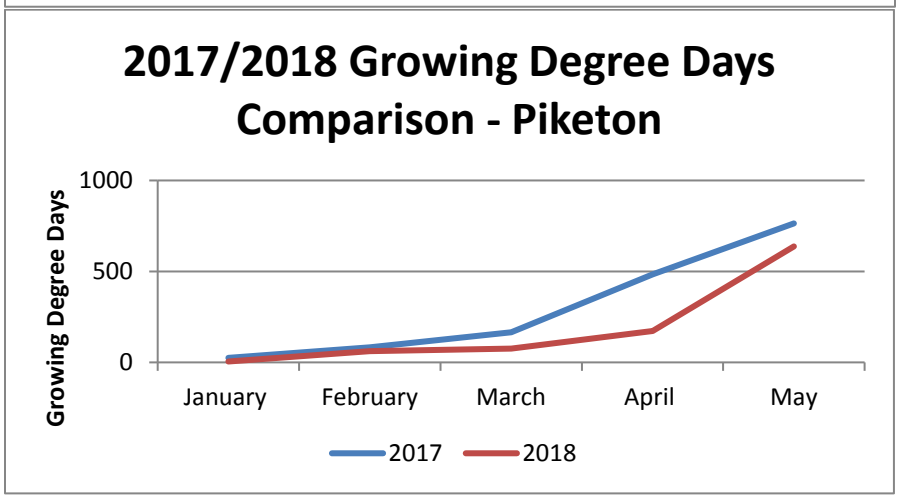
Figure 5 Traminette Pre-Bloom (24 May 28)

Figure 6 Tunnel Grapes Cab Franc (right) & Regent (left) (24 May 18)

Weather Conditions:

As of May 24th, we have received 21.4" of precipitation for the year, compared to 18" by this date in 2017, and 15.5" for the Historical Average.





Cultural Practices:

Besides the dormant application of Sulforix, we have made to applications of fungicide to date. Those have been a combined application of Manzate Pro-Stick and Tebustar and another application of Manzate Pro-Stick. A herbicide treatment of glyphosate and Chateau were applied before vines broke dormancy; the pre-emergent herbicide is working well, but some persistent weeds, e.g. white clover and Johnsongrass, are starting to emerge in the rows. We will have to make another post-emergent herbicide application soon. Shoot positioning for VSP trained vines has begun and will continue.

First Notice:
2018 Northeast Ohio Grape & Wine Field Day
&
2018 Grape Twilight Tour

2018 Northeast Ohio Grape & Wine Field Day
When: July 19, 2018, 1pm-430pm
Where: Ashtabula Agricultural Research Station
What: Vineyard Sustainability Seminars
Featuring Dr. Elizabeth Long, Dr. Melanie Lewis Ivey, Dr. Doug Doohan, and Andrew Kirk
Who: Open to the public, No Fee, Contact kirk.197@osu.edu (or 440 224 0273) for more details

2018 Grape Twilight Tour
When: July 19, Dinner at 530pm
Where: Kent State University-Ashtabula Campus
What: Dinner/Regional Pinot Tasting, with Featured Guest Speaker Roland Riesen
Who: RSVP online (website TBD) or contact Danielle Weiser-Cline (dweiser1@kent.edu), Dinner: $20

By: Diane Kinney and Imed Dami, HCS-OSU

Vine & Wine News continues to provide updates on grape growing and wine making in Ohio and elsewhere. These updates will be posted on the program website, *Buckeye Appellation* (BA) at: http://ohiograpeweb.cfaes.ohio-state.edu/. We would like to invite you to visit the website on a regular basis to help inform you of what our OSU Team has available to you through OGEN, TGE, research updates, events and news. Our hope is that it becomes a resource you look up periodically. So why not bookmark this site today?

In the month of May, we have posted the following updates. Simply click on the blue link and the desired document will automatically open.

Educational Materials:

- **Ohio Grape Electronic Newsletter** (OGEN) on homepage and tab (current issue).
- **The Grape Exchange** (TGE) on the homepage and tab (latest posting on May 30).
- **Laser Bird Repellent Solves Bird Problem in Wine Grape Industry -** https://birdcontrolgroup.com/bird-repellent-saves-wine-grape-industry/

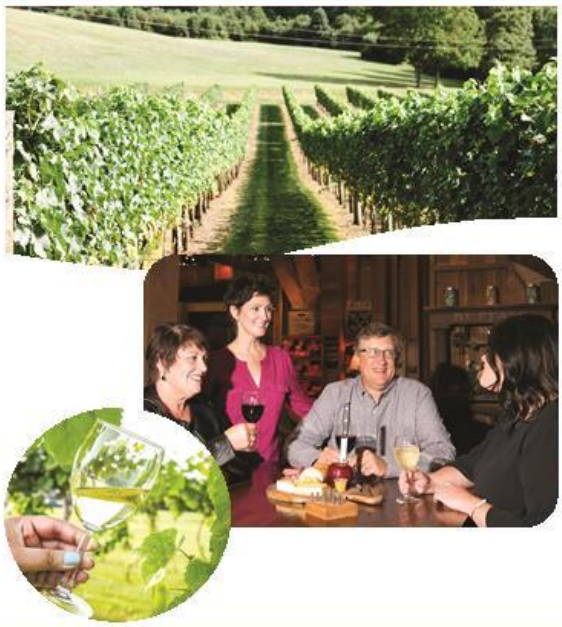
News:

2018 Directors Choice Winners Announced

Misc:

Homepage slide: Ohio Department of Agriculture Director Honors Top Wines

Save the Date!



2019 Ohio Grape & Wine Conference

February 18-19, 2019
Embassy Suites Columbus/Dublin
5100 Upper Metro Place
Dublin, OH 43017

Ohio WINES Grown Here

The Ohio State University
College of Food, Agricultural, and Environmental Sciences

Ohio Wine Producers Association

2019 Ohio Grape & Wine Conference

February 18-19, 2019

Embassy Suites Columbus- Dublin
5100 Upper Metro Place
Dublin, OH 43017
(614) 790-9000

Program Highlights:

- Two information-packed days with viticulture, enology, entomology, plant pathology, virology and weed science presentations, as well as an industry trade show, Ohio wine reception, and exquisitely-prepared banquet.
- Flexible registration options and affordable registration fee.

Ohio Grape Industries

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8995 E. Main Street
Reynoldsburg, OH 43068-3342

OSU Grape & Wine Research & Outreach Specialists | 2018

Name & Address	Phone	Email & Website	Area of Expertise & Assistance Provided
Dr. Imed Dami, Professor & Viticulture State Specialist Dept. Of Horticulture & Crop Science 216 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3882	e-mail: dami.1@osu.edu Website: Buckeye Appellation	Viticulture research and statewide extension & outreach programs.
Dr. Doug Doohan, Professor Dept. Of Horticulture & Crop Science 116 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-202-3593	Email: Doohan.1@osu.edu Website: OARDC Weed Lab	Vineyard weeds and control. Recommendation on herbicides.
Dr. Gary Gao, Small Fruit Specialist and Associate Professor, OSU South Centers 1864 Shyville Rd, Piketon, OH 45661 OSU main campus, Rm 256B, Howlett Hall, 2001 Fyffe Ct Columbus, OH	740-289-2071 Ext. 123 Fax: 740-289-4591	Email: gao.2@cfaes.osu.edu Website: OSU South Centers	Viticulture Research and Outreach in southern Ohio
Dr. Melanie Lewis Ivey, Assist. Professor Dept. of Plant Pathology 224 Selby Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3849 330-465-0309	Email: ivey.14@osu.edu Website: OSU Fruit Pathology	Grape Diseases Diagnostics and Management. Recommendation on grape fungicides and biocontrols. Good Agricultural Practices and Food Safety Recommendations.
Diane Kinney, Research Assistant Dept. Of Horticulture & Crop Science 218 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3814	Email: kinney.63@osu.edu Website: Buckeye Appellation	Vineyard and Lab Manager – Viticulture Program. Maintains Buckeye Appellation Website, OGEN (Ohio Grape Electronic Newsletter), TGE (The Grape Exchange), TJB (The Job Board)
Andrew Kirk, AARS Station Manager Ashtabula Agricultural Research Station 2625 South Ridge Road Kingsville, OH 44048	440-224-0273	Email: Kirk.197@osu.edu	Viticultural Research and Outreach in Northeast OH. Wine grape production especially *vinifera* varieties
Dr. Elizabeth Long, Assist. Professor OSU/OARDC Entomologist 105 Thorne Hall 1680 Madison Avenue Wooster, OH 44691	330-263-3725	Email: long.1542@osu.edu	Fruit and vegetable insects.
David Marrison, County Extension Director, Assoc. Professor & Extension Educator OSU Extension – Ashtabula County 39 Wall Street Jefferson, OH 44047	440-576-9008 Ext. 106	Email: Marrison.2@osu.edu Website: Ashtabula OSU	Vineyard and winery economics, estate planning and extension programs in Northeast Ohio.
Dr. Erdal Ozkan, Professor & Extension State Specialist Food, Agriculture & Biological Engineering Dept, OSU 590 Woody Hayes Drive Columbus, OH 43210	614-292-3006	Email: ozkan.2@osu.edu	Pesticide application technology, Sprayer calibration
Patrick Pierquet, Research Associate Dept. Of Horticulture & Crop Science 220 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3879	Email: Pierquet.1@osu.edu	Wine Cellar Master – OSU Micro-vinification, sensory evaluation and laboratory analysis
Todd Steiner, Enology Program Manager & Outreach Specialist Dept. Of Horticulture & Crop Science 118 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3881	Email: Steiner.4@osu.edu Website: Buckeye Appellation	Commercial wine production, sensory evaluation, laboratory analysis/setup and winery establishment. Todd is the primary research and extension contact of the enology program.
Dr. Celeste Welty OSU main campus Department of Entomology Columbus, OH	614-292-2803	Email: Welty.1@osu.edu	Fruit and vegetable insects