

Ohio Grape-Wine Electronic Newsletter

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Vineyard Update from OARDC in Wooster: May 2017

By Diane Kinney and Dr. Imed Dami

Grape Phenology:

In Wooster, most grape varieties have shoot growth in the range of 18-24" and at the pre-bloom stage. We are at full bloom in the Minnesota varieties such as Marquette, La Crescent and Frontenac.

Phenology progression of Cabernet franc:



Cabernet franc (25 Apr 17)



Cabernet franc (30 May 17)



Weather Conditions:

In Wooster, the average daily temperature of 58.1 °F is below the 30-year average of 60.3 °F during the month of May. However, the accumulation of heat units since January (GDD = 551) is ahead of the 30-year average (GDD = 475). It is in precipitation that we see the greatest change. For the month of May, we are at 4.89" (through May 29) a full inch above the 30-year average. The cumulative precipitation for the year is 17.41", which is 5.54" above the 30-year average!

Cultural Practices:

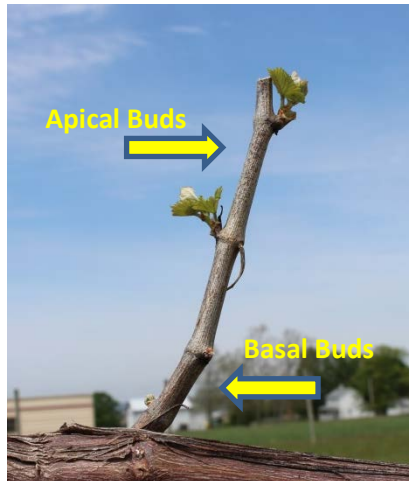


Photo shows the benefit of double-pruning. Note the delay of bud break on the basal buds while the apical buds are much further advanced.

(Cabernet franc, Wooster Unit 2/OARDC)

We have completed replanting missing vines in the Wooster variety trial. Due to mild winter and warm February we experienced early this year, we conducted double-pruning in all varieties by leaving 5-bud spurs as a measure to mitigate frost damage in case of early budbreak. After the threat of frost (early May in our area) had passed, a second round of pruning was conducted and all vines were pruned back to 2-3 bud spurs. Trunk suckering was also completed and shoot tucking has started on VSP-trained vines. The first two cover sprays were applied in early and mid-May. For weed control, glyphosate was applied first and then was followed with a pre-emergence herbicide mix after dehillling.

Vineyard Update from OSU South Centers in Piketon: May 2017

By Gary Gao, Extension Specialist, and Ryan Slaughter, Research Assistant

We have been getting quite bit rain at OSU South Centers in Piketon. Grapevines have grown a lot and so have the weeds. It has been quite hard to stay ahead of the weeds. Disease pressure has been quite high too due to the many rain events we have experienced. Most of our grape cultivars are at immediate prebloom stage on May 30. Several fungicide sprays have been made. Now is the most critical time for us to apply fungicides to control black rot. Please refer to the Midwest Fruit Pest Management Guide for labelled fungicides.



Shown here are 'Traminette' grapevines on high cordon (left) and VSP (Right). Photo by Gary Gao, OSU South Centers.

We have replaced many of our *Vinifera* varieties with cold hardy ones from Cornell University and the University of Minnesota. Mother Nature has been relatively kind to us this year. We did not experience a hard spring freeze as some of our growers in southwest Ohio did. We had a close call on May 8th when we had a low temperature of 32.6F at 6:20 am. Fortunately, the cold even did not last long. None of grapevines were damaged. Most of our grapevines are loaded with fruits. So far, we are hoping for an above average crop this year.

Our high tunnel grape project is going well. We have installed two high tunnels over 'Regent' and 'Cab Franc.' So far, grapevines have done well. This past winter has been quite mild. However, the windy conditions were a good test for our high tunnels. Our research crew had a

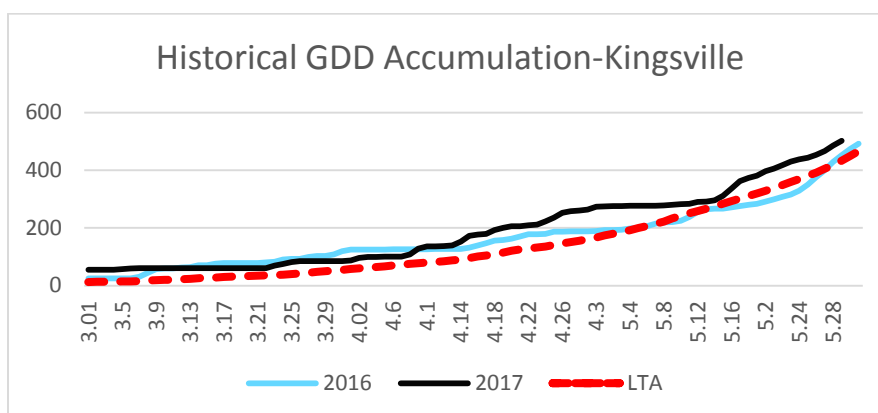
“fun” time repairing the high tunnels on a regular basis. Hopefully, this project will pay off in the long run. High tunnels can be an effective way to protect premium grapevines for estate wine production.

We would like to thank Ohio Grape Industry Program for its financial support of our wine grape research and extension programs at OSU South Centers in Piketon.

Vineyard Update from AARS Kingsville: May 2017

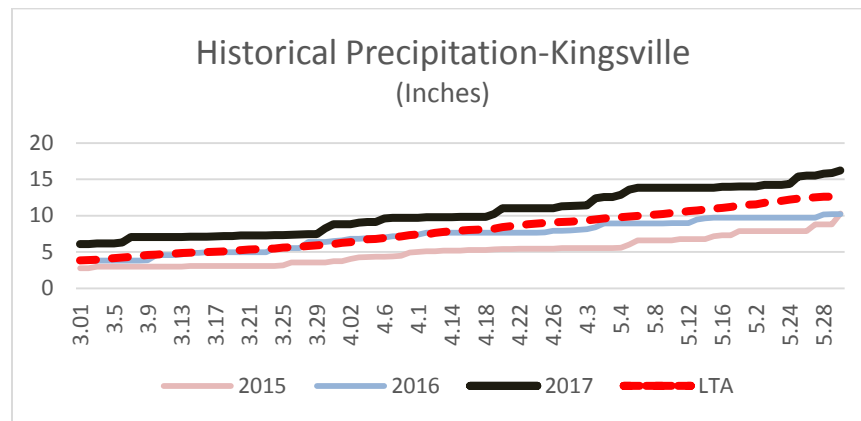
By Andy Kirk, Research Specialist, Ashtabula Agricultural Research Station

Variable temperatures and soggy soils have been the story of spring 2017 at the Ashtabula Agricultural Research Station. Our stage of growth, as of May 31st, is typically ranging from 6 inch shoots to 2 foot shoots, depending on the variety. At the low end of that range are *Vinifera* varieties such as Pinot Noir and Pinot Gris, while our Concord shoots are over two feet long in some instances. The growth is healthy and we are pleased to see abundant flower cluster precursors taking shape.



GDD accumulation has been above average, believe it or not, since March 1st. We are fortunate to say that we had minimal frost damage during the frost episode of May 8th and 9th. Please see Dr. Dami's email to the OGEN list on May 16th for a summary of scouting efforts at local vineyards and in OARDC research vineyards. I ran the wind machine on both of these mornings and was able to improve vineyard temperatures 3-4 degrees at each iteration. I should note that many local wind machines paid for themselves over the course of those two mornings.

Precipitation levels have been above average for this spring. As of a few weeks ago, I was hearing from growers facing a choice between delaying field operations (mowing, spraying, de-hilling, etc.) and creating compaction and rutting that would come back to haunt them at a later date. That conundrum, coupled with high disease pressure, has made for a challenging spring. Our sandy soil dries quickly at AARS, which has minimized issues thus far with compaction or stuck tractors. I'd be interested to hear from growers whether particular drain tiling practices have made an impact this spring, with respect to vineyard navigability.



With the high disease pressure, we've had to be fairly aggressive with our spray program. It has been a challenge to balance the timeline for rainfastness of fungicide material and the desire to not miss any valuable time for our crew in the vineyard. There has been at least one instance where we were nearing the end of a rainfast period and then received sizable and unpredicted rainfall during the night, leading to a high risk of infection. Fortunately the REI for Mancozeb is only 24 hours. That's one day out of the vineyard to ensure many fruitful days in September and October.

Weeds, on the other hand, have been a minimal concern for us this spring. We did a very successful application in April of glyphosate and a pre-emergent herbicide, and have had minimal issues since that time. With our soil erosion problems, this has been of huge benefit as it has meant less mechanical cultivation. In truth, it has been so successful that I have been able to wait as long as possible to take mounds down around our *Vinifera*. Only this week have I started to take away mounds.

We took advantage of the long spring to catch up on vineyard trellising and infrastructure repairs. Now the crew has moved their focus onto bud rubbing, and is finishing that up. We're gearing up for our first round of tucking late this week or next week. Things are looking good now, but spring is moving fast and it's full steam ahead to keep up with AARS vineyards and grounds!



Photo: Pinot Noir vine at Ashtabula Agricultural Research Station.

National Pest Alert



Palmer Amaranth

Amaranthus palmeri

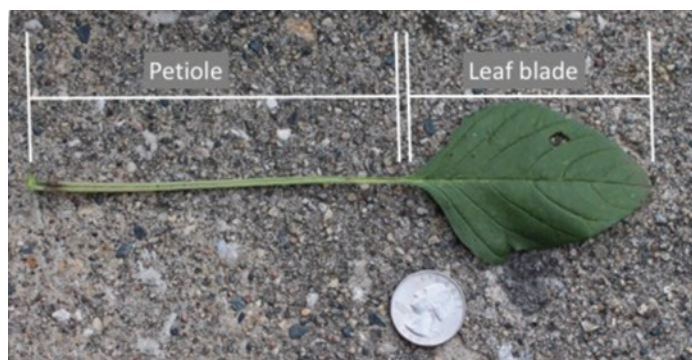
Palmer amaranth (*Amaranthus palmeri*) is native to the desert regions of northern Mexico and the southwestern United States, and has spread into the Midwest, the East Coast and portions of Canada. Palmer amaranth is a relatively new introduction in Iowa, Minnesota, South Dakota, Wisconsin and the Northwest U.S. Palmer amaranth can be distributed by birds, though livestock feed, manure, grazing, wind, farm equipment etc. Amaranth expansion was accelerated in 2016 as an unintentional contaminant in some native seed mixes purchased by growers participating in conservation programs.

Palmer amaranth grows 1–3 inches in height per day, up to 6–8 feet tall and occasionally will reach 10 feet or more. Emergence occurs from early May through late summer and a single plant can produce over 200,000 seeds. Compounding the concern over the expansion of this highly aggressive, fast-growing weed is its resistance to herbicides. It is similar to waterhemp in its ability to rapidly evolve resistance to many herbicides used in weed management programs.

Identification of Palmer Amaranth Plants

Palmer amaranth is closely related to waterhemp (*Amaranthus tuberculatus*); to the untrained eye the two species look very similar. Fields in which Palmer amaranth has been introduced may also contain waterhemp. The following traits can distinguish these two species from each other. In addition, molecular tests are available to confirm the identification of Palmer amaranth.

- Both Palmer amaranth and waterhemp have hairless stems.
- Palmer amaranth will have some leaves, but not all, with petioles longer than the leaf blade.
- Seedheads of Palmer amaranth are usually longer and thicker than those of waterhemp.
- Female Palmer amaranth flowers have large, sharp bracts that are painful to touch when mature.
- Palmer amaranth usually has a much denser canopy than waterhemp.



Robert Hartzler, Iowa State University

A petiole longer than the leaf blade is the most reliable vegetative trait to distinguish the two pigweeds. Not all leaves on a Palmer amaranth will have this trait.

Diversify Weed Management Practices

Palmer amaranth, a summer annual, thrives in crops that have life cycles similar to amaranth (e.g., corn, soybean), so it is well adapted to production systems reliant on herbicides. One should evaluate how non-chemical tactics such as interrow cultivation, narrow-row spacing, and cover crops can be incorporated into weed management programs. Crops with life cycles different than Palmer amaranth, such as winter annual small grains or perennial forage species, are effective management tools that create an unfavorable environment for Palmer amaranth survival and reproduction.

Purchasing Seed for New Conservation Plantings

Purchase seed, including that used for pollinator plantings, cover crops, native species, and other conservation plantings, from a reputable company. Request a mix that does not contain Palmer amaranth, and review your seed tag to ensure it has been tested prior to planting. Visual

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identification of Palmer amaranth seed is nearly impossible because the seed of different pigweed species look similar. Seed growers test each seed lot for germination and purity, and end-users can request the laboratory tests for each species in your seed mix. If the seed test indicates the presence of “pigweed” or “Amaranthus spp.” then don’t purchase the seed unless the pigweed seed has been genetically tested and determined not to be Palmer amaranth. Many seed companies are now using a genetic test to positively identify Palmer amaranth seed from other pigweed species. Although the conservation seed industry is now aware of the Palmer amaranth issue, producers should still discuss seed purchases with local NRCS personnel and University Extension specialists to help ensure that the seed mix is amaranth-free.

Preventing Spread to Production Acreage

The primary concern with Palmer amaranth is that it will move from conservation plantings into crop fields. The greatest risk is with fields immediately adjacent to conservation plantings. Establish a 50 ft. buffer of an appropriate species of perennial grass to minimize Palmer amaranth spread to adjacent fields. If Palmer amaranth emerges in the grassed buffer strip, tools mentioned below should be considered during management discussions with NRCS personnel and University Extension Specialists for control throughout the growing season.

Management Options in Conservation Programs

Preventing the introduction, establishment, and spread of Palmer amaranth is the best management approach. Since Palmer amaranth is a recent introduction in many Midwest states a permanent seedbank may not be established. The objective should be eradication in new conservation plantings and producers can achieve this by preventing any Palmer amaranth plants from maturing and producing seed. Palmer amaranth present in Conservation Program plantings should be removed before plants produce seedheads and seeds mature. Infested acreage will require monitoring and treatment for several years to deplete the Palmer amaranth seedbank.

Mowing is recommended during establishment of native plantings. While mowing will not completely control Palmer amaranth, it will help get the native plants established, which will suppress the long-term effects of Palmer. Mowing will also reduce the number of plants that need to be removed by other strategies. Initiate control strategies before seedheads expand, and well before seed maturity. Hand weeding is an effective strategy for fields with low densities of Palmer amaranth. Plants should be carefully removed and destroyed if seedheads are fully expanded. Palmer amaranth resumes growth after mowing more quickly than other plants, making the weed easier to locate.

Chemical options for Palmer amaranth management include spot treatments of 2,4-D, dicamba, or glyphosate. Dicamba or 2,4-D will not kill grasses and are the preferred option. Multiple applications may be necessary due to prolonged emergence of Palmer

Robert Hartzler, Iowa State University



Palmer amaranth in conservation planting.

amaranth. If using herbicides after mowing, delay the applications for two weeks to allow new growth to develop. Some Palmer amaranth populations have shown resistance to glyphosate. Also consider mechanical removal and/or spot burning.

In fields with high densities of Palmer amaranth it may not be economically feasible to selectively remove the Palmer amaranth while maintaining the vegetation specified in the Conservation contract. To maintain the integrity of the contracted vegetation, use mowing, hand weeding, and spot treatments with herbicides. However, broadcast application of either 2,4-D or dicamba may be necessary to eradicate Palmer amaranth from the program acreage. Any method of control (mechanical, chemical) should be made while Palmer amaranth is small and actively growing. The planting may need to be over-seeded with an appropriate grass species to provide competition and adequate cover depending on how much bare soil remains after herbicide application. Additional control treatments are likely to be required in subsequent years to provide continued control of Palmer amaranth.

For more information about Palmer amaranth control recommendations and state resources visit our Web site at: ncipmc.org/action/alerts/palmer.php

This publication was produced and distributed in cooperation with the USDA NIFA Regional Integrated Pest Management Program Centers and State-based Extension Programs. For more information regarding the development of this document, please contact Susan T. Ratcliffe at sratclif@illinois.edu or by phone at (217) 333-9656.

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Insect pest alert: Grape berry moth

It's time to start checking your monitoring traps weekly and scouting for signs of grape berry moth activity! Depending on your location in the state, adults may already be flying and females may be laying eggs soon.

These eggs will hatch and produce the first generation of grape berry moth larvae. These larvae will feed on grape flowers and young fruit clusters from mid- to late-July or August. While this is not the most damaging generation, early season control will prevent establishment of a population in the vineyard.

To spot activity, look for small flower buds or berries that are tied together with webbing. The caterpillars are active, and green to purple in color. They are also small, so they may be hard to see. For more information visit: <https://ohiograpeweb.cfaes.ohio-state.edu/ipm/insects/grape-berry-moth>



Grape berry moth

small, mottled-brown color **with bluish-gray on inner halves of front wings.**



Berries tied together with webbing. Photo: Rufus Isaacs, Michigan State University



If you don't currently have a monitoring trap, it's not too late to purchase some. There will be another generation of grape berry moths during late summer that you will want to monitor for! Traps are easy to use and assemble - just fold a sticky card into a triangle shape and hang it in your vineyard. A pheromone lure attracts male moths to the trap, where they get stuck. Check these traps at least once a week and when you spot an adult, you'll know it's time to take action to protect your crop. A single trap and lure lasts 4-6 weeks, and costs \$7.50 at [greatlakesipm.com](http://www.greatlakesipm.com/grapeberrymoth.html) (<http://www.greatlakesipm.com/grapeberrymoth.html>)

Grape berry moth pheromone trap.

Photo: E. C. Burkness ,
University of Minnesota

Grape berry moth

**Who's on your
sticky trap??**



small, mottled-brown color **with bluish-gray**
on inner halves of front wings.

versus

Red-banded leafroller



small, mottled-brown color **without** bluish-gray
on inner halves of front wings.

See page 87 of the 2017 Midwest Fruit Pest Management Guide for spray recommendations. Good coverage is key for protecting buds and berries against grape berry moth caterpillars!

Vine & Wine News @ “Buckeye Appellation”

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 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 past month, we have posted the following:

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 11 May).

News:

- [Last Weeks Frost Damage Update](#) by Dr. Dami
- [Frost Damage Update in Northeast Ohio](#) by Andy Kirk
- [National Pest Alert](#) – Palmer Amaranth
- [OSU Viticulture Student Earns 4 National Scholarships](#)

Upcoming Events:

- [Summer Grape Conference and Field Day](#) hosted by Double A Vineyards
- [Orchard Sprayer Field Day](#) hosted by OSU and USDA-ARS

Misc:

- New Homepage slide

1. Double A Vineyards – Summer Grape conference and Field Day: Tuesday July 25, 2017



TUESDAY, JULY 25, 2017

CLARION HOTEL, MARINA & CONFERENCE CENTER, DUNKIRK, NY

7:30 – 8:15 AM **Registration**

8:15 – 8:30 **Introductions**

8:30 – 9:15 **Effective Vineyard Spraying – What Now, What Next**

Dr. Andrew Landers, Faculty Fellow, Atkinson Centre for a Sustainable Future, Cornell University, Geneva, NY

9:15 – 10:00 **Looking Backward, Forward, and Straight Ahead: A Perspective on Disease Control in Eastern Vineyards**

Dr. Wayne Wilcox, Professor of Grape Pathology, Plant Pathology and Plant-Microbe Biology, Cornell University, Geneva, NY

10:00 – 10:30 **Coffee Break and visit with your fellow growers**

10:30 – 11:15 **Clean Vines for the Eastern US: Why and How?**

Dr. Marc Fuchs, Professor of Virology, Plant Pathology and Plant-Microbe Biology, Cornell University, Geneva, NY

11:15 – 12:00 **Grapevine Breeding and New Cold Hardy Varieties**

Peter Hemstad, Cold Climate Viticulture Consultant and Grape Breeder, Hemstad Consulting and St. Croix Vineyards, Stillwater, MN

12:00 – 1:00 **Lunch**

1:00 – 4:00 **Field Tour of Double A Vineyards Certified Grapevine Nursery Blocks** (travel by bus)

4:00 **Return to Clarion, Conference ends**

\$75 registration fee.

Register at www.doubleavineyards.com or by calling the office at 716-672-8493

2. Orchard Sprayer Field Day in Wayne County at Bauman Orchards, Rittman OH:

Thursday August 3, 2017

- More details to come shortly. Tentative time frame of 3:00 – 7:30 pm. Program to include demonstrations featuring the “intelligent” sprayer system with time also devoted to orchard sprayer calibration and nozzle selection.

By Diane Kinney



Troutman Vineyards, Wooster provided the backdrop by hosting an afternoon of fellowship and fun on Thursday April 27th as we sent David Scurlock, Viticulture Outreach Specialist OSU on his way into retirement. A group of about 75 people joined in the celebration that included hearty handshakes, warm hugs, big smiles and maybe a few watery eyes. This was a testament to Dave's impact on the grape and wine industry and the fact that he was much more than an OSU employee, crossing the invisible line into a family of friends that will remain for a lifetime. Dave's 37 years of tireless work have created an impact that will be felt for years to come.

Please enjoy the following photos from this joyous event followed by a brief note from Dave.



Dave's Retirement Celebration | 2017



My Honor

It has been my greatest honor to have been able to work with the grape growers and wine makers in Ohio. I want to express what a blessing it is to have such an extended family. I want to thank all of you over the years and recently for the nice comments, cards and gifts. We are fortunate in Ohio to have a Team of Experts in place at The Ohio State University & Ohio Agricultural Research and Development Center to research areas of Viticulture, Enology, Plant Pathology, Entomology, Weed Science and at least one source of funding through the Ohio Grape Industry Committee through the Department of Agriculture since 1981. Together it works and we have continued to make great strides in the production of high quality grapes and wine.

All the Best and Thank you all for everything.

Sincerely,
Dave

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.

Contact Information			
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. Recommendation on variety selection. Imed is the primary research contact of the viticulture program.
Dr. Doug Doohan , Professor Dept. Of Horticulture & Crop Science 205 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, VEAP visits in southern Ohio, vineyard management practices, soil fertility and plant nutrition, fruit quality improvement, variety evaluation, table and wine grape production.
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 Facebook: OSU Fruit Pathology	Grape Diseases Diagnostics and Management. Recommendation on grape fungicides and biocontrols. Good Agricultural Practices and Food Safety Recommendations.
Andrew Kirk , AARS Station Manager Ashtabula Agricultural Research Station 2625 South Ridge Road Kingsville, OH 44048	330-263-3881	Email: Kirk.197@osu.edu Website: OSU Branch Campus	Wine grape production in Northeast OH, especially <i>vinifera</i> 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 , Dept. Of Horticulture & Crop Science 130 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