

OHIO GRAPE-WINE ELECTRONIC NEWSLETTER

Edited by: Dr. Maria Smith

January / 2020



Photo: The invasive spotted lanternfly, a highly invasive and potentially destructive new pest for grapes.

Photo credit: www.agriculture.pa.gov

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A very warm start to 2020.

Normally this time of year, we're bundled up and clearing snow. This January, though, we've been breaking a sweat with temperatures across the state exceeding 5-10 °F above average over the past 30 days. This can be very problematic for winter bud survival, as buds become more sensitive to warm temperatures and fluctuations in temperatures towards late winter.

If you are considering when to start pruning, we suggest holding off until early spring if possible and assess bud injury prior to deciding how many buds to retain. If you have questions on pruning or would like more experience pruning, please contact us or plan to attend one of our pruning workshops this spring!

-Maria and the OSU V&E team

Have you Spotted me?!

By: Maria Smith, HCS-OSU

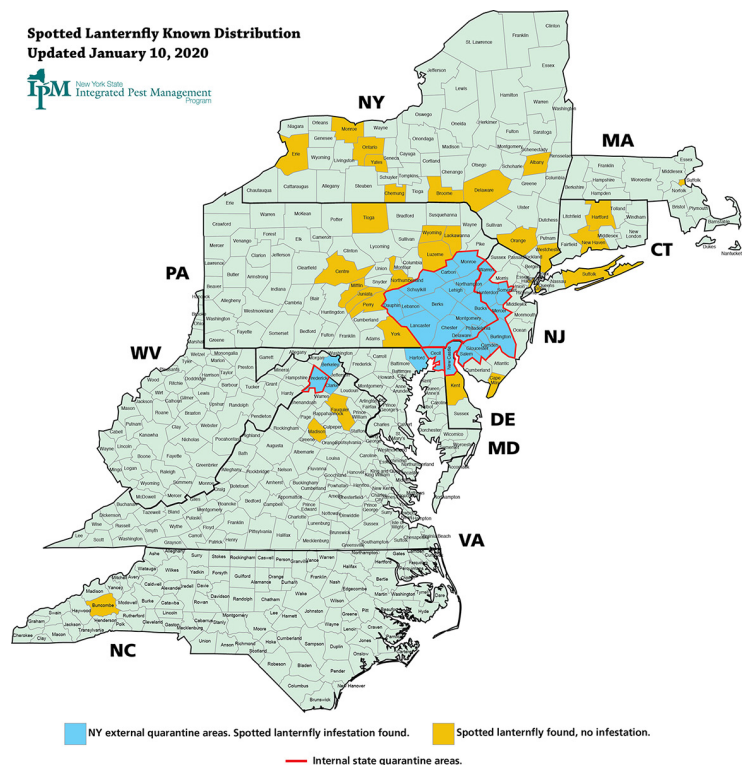
The Spotted Lanternfly (SLF; species name: *Lycorma delicatula*) is a recently introduced insect native to eastern Asia (**Fig. 1**). This colorful insect was first identified in the US in Berks County, Pennsylvania in 2014 and has since spread to localized areas throughout several Mid-Atlantic and Northeastern states (**Fig. 1**).

While quarantine efforts have assisted with slowing the rate of its spread, it is likely to begin appearing in Ohio as soon as this coming spring. On 20 Jan 2020, the Columbus Dispatch reported that egg masses of the SLF were found approximately 15 miles from the Ohio border in Beaver County, PA (<https://www.dispatch.com/news/20200120/destructive-spotted-lanternflies-found-about-15-miles-from-ohios-quos-eastern-border>). Awareness and reporting among the public can help in preventing establishment and further spread of this pest.



Figure 1. Left: Adult Spotted Lanternfly. Photo credit: https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/Entomology/spotted_lanternfly/SpottedLanternflyAlert/Pages/default.aspx

Right: Distribution of SLF, as of 10 Jan 2020. Photo credit: New York State IPM Program <https://nysipm.cornell.edu/environment/invasive-species-exotic-pests/spotted-lanternfly/spotted-lanternfly-ipm/introduction-native-range-and-current-range-us/>



Identifying the SLF

The SLF is considered a part of the planthopper family, and while they can fly as an adult, they more commonly jump and glide. It has 6 distinct life stages: eggs, 4 immature nymph (instar) stages, and an adult stage, which can be observed during different times of the year (**Fig 2**).

- **Eggs:** masses are approximately 1" long, contain 30-50 eggs per mass, and are laid on hard surfaces (trees, fence posts, stones, patio furniture, etc.). When laid, egg masses are protected via a waxy, gray substance. Fresh egg masses resemble a putty-like substance but turn more toward a cracked-mud appearance as they age. **Look for egg masses between September through June.**
- **Nymphs (1st - 3rd instar):** when first hatched, early stage nymphs are only a few millimeters in length but will grow to be about 1/4 inch long. Their bodies and legs are all black with contrasting bright white spots all over. **Look for hatching and developing nymphs between April through July.**

Spotted lanternfly (continued)

- **4th Instar:** the last nymph stage is approximately 1/2" long and have a red back with black stripes and white spots. **Look for the 4th instar stages between July and September.**
- **Adults:** at approximately 1 inch in length and 1/2 inch in width (females are slightly larger than males), adults take on the attractive characteristic SLF appearance with grey forewings covered in spots and tips with black rectangular markings. Hindwings are red with black spots on the lower third portion with solid black tips and a white stripe between them. The body is yellow with black and white stripes. Adults die back over winter but lay egg masses during throughout the fall. **Look for adults between July and December.**

Insect sizes have been enlarged to show detail.

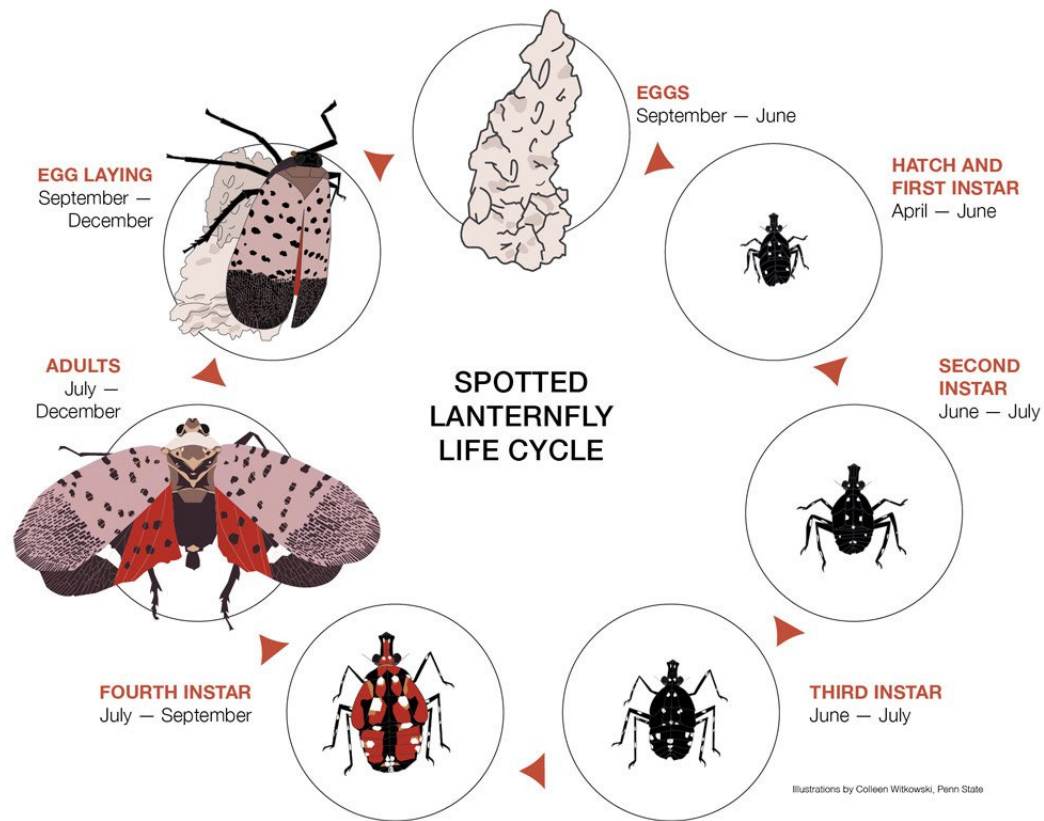


Figure 2. The SLF lifecycle. Figure from Penn State Extension <https://extension.psu.edu/spotted-lanternfly>

What's the big deal with this pest?

SLF causes damage by feeding on sap from leaves, stems, and trunks from **over 70 plant species**, including grapes, tree fruits, ornamental trees and shrubs, and forest trees. This causes wounding and loss of energy providing sap from the affected plant. Furthermore, sap excretions from the insect ("honeydew") lead to sooty mold development as a result of fungal growth on the sap. Excessive feeding from high populations of SLF may cause plant weakening and eventual death from accumulated stress. **Grapes**, in particular, have the highest levels of perceived susceptibility to damage by the SLF and are also at high risk for significant economic impacts (<https://www.rural.palegislature.us/documents/reports/Spotted-Lanternfly-2019.pdf>).

Spotted lanternfly (continued)

Managing and reporting the SLF in Ohio vineyards

Currently, SLF has NOT yet been found in Ohio but is very close. What should we do? The suggested course of action is to be prepared and proactive in reducing risks for population establishment of SLF in Ohio. The recommended means for accomplishing this is by monitoring and managing its most preferred host, the tree-of-heaven (*Ailanthus altissima*; **Fig. 3.**) To minimize potential impacts to vineyards, familiarize yourself with current chemical, biological, and cultural management recommendations. **The best resources currently available for identification and control of SLF in vineyards are provided by Penn State Extension.** To view these materials, visit <https://extension.psu.edu/spotted-lanternfly-management-in-vineyards>

Awareness and monitoring is key. If you or anyone else see something resembling SLF, speak up to The Ohio Department of Agriculture (ODA) immediately. The ODA is anticipating the introduction of the SLF into Ohio and is prepared to respond. By reporting sightings of eggs, nymphs, or adults, we aid in slowing its spread and potential damage. For more information on reporting invasive insects, visit <https://agri.ohio.gov/wps/portal/gov/oda/divisions/plant-health/invasive-pests/>.



Figure 3. Identifying features of the invasive Tree-of-Heaven (*Ailanthus altissima*). Photo credit: Ohio Division of Forestry <https://forestry.ohiodnr.gov>

Additional resources

Briggs L. et al. Considerations for Vineyards with Spotted Lanternfly. 31 January 2020. <https://psuwineandgrapes.wordpress.com/2020/01/31/considerations-for-vineyards-with-spotted-lanternfly/>

New York State Integrated Pest Management: <https://nysipm.cornell.edu/environment/invasive-species-exotic-pests/spotted-lanternfly/spotted-lanternfly-ipm/introduction-native-range-and-current-range-us/>

Penn State Extension: <https://extension.psu.edu/spotted-lanternfly>

Pest alert: Spotted Lanternfly factsheet (USDA), https://ohiograpeweb.cfaes.ohio-state.edu/sites/grapeweb/files/imce/pdf_factsheets/alert_spotted_lanternfly_USDA_2014.pdf

USDA, Spotted Lanternfly: <https://www.invasivespeciesinfo.gov/profile/spotted-lanternfly>

2019 Year in Review

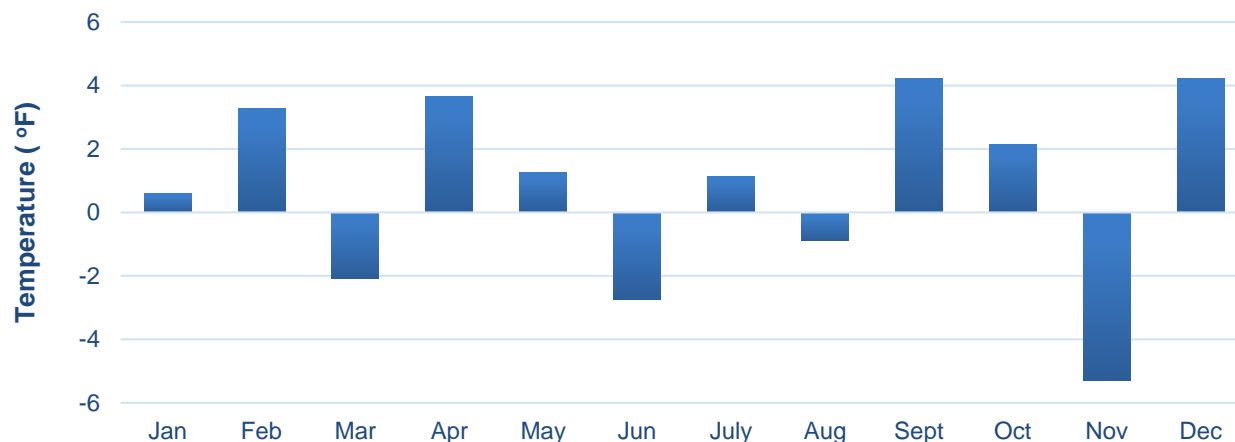
Imed Dami and Diane Kinney, Horticulture & Crop Science, The Ohio State University

This article summarizes the 2019 growing season and the impact of weather on grape varieties grown on the research vineyard at the OSU-OARDC in Wooster, Ohio.

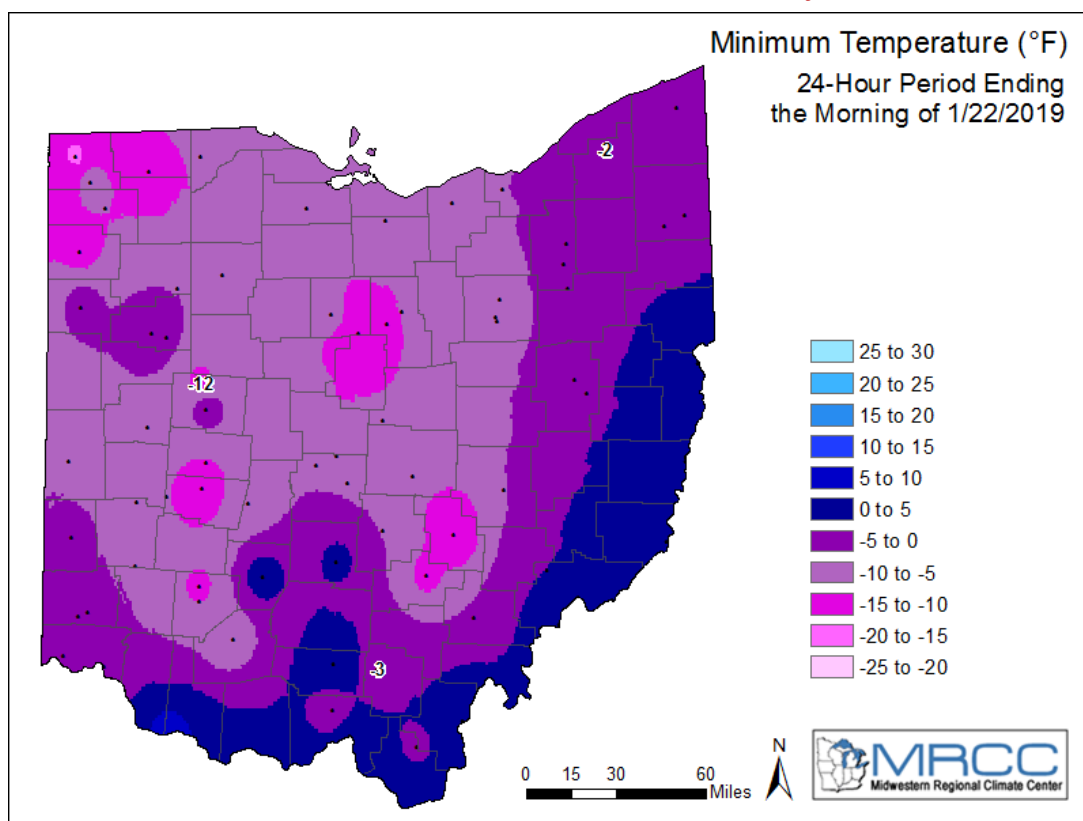
Weather: Temperature

The start of 2019 was a “déjà vu” of 2018 with the occurrences of two major cold snaps in January. The 1st event (radiative freeze) occurred on January 21st and 22nd and the lowest temperatures ranged between 1 °F and -15 °F across the state. The coldest spots were in central, northwest, and some counties in northeast Ohio. The 2nd event (advective freeze), from the infamous “polar vortex”, occurred on January 30th and 31st and minimum temperatures ranged from 0 °F to below -20 °F with most of the state averaging a minimum of -6 °F. In Wooster, the lowest temperature was -7.2 °F on 22 January 2019. Unlike the 2014 polar vortex, temperature lows did not drop below -10 °F in the main grape growing regions, as the brunt of the 2019 polar vortex fortunately missed Ohio to the west. Bud cold hardiness was not at its potential maximum thus most vinifera varieties sustained bud injury. The mild month of February did not help to maintain cold hardiness, thus exacerbated winter injury (more information below). The warmer than average April led to early budbreak, but no spring frost occurred. June was nearly 3 °F cooler (and wetter) than normal, which was not optimal for normal flowering and fruitset. The ripening season in September and October was ideal with warmer than normal air temperature. The first hard freeze occurred on November 9th. The year ended with another mild December, 4.2 °F above average, which was not ideal for overwintering vines. Overall, we had eight months of the year with warmer temperature than average. In fact, 2019 was the 2nd hottest year ever worldwide, according to NOAA!

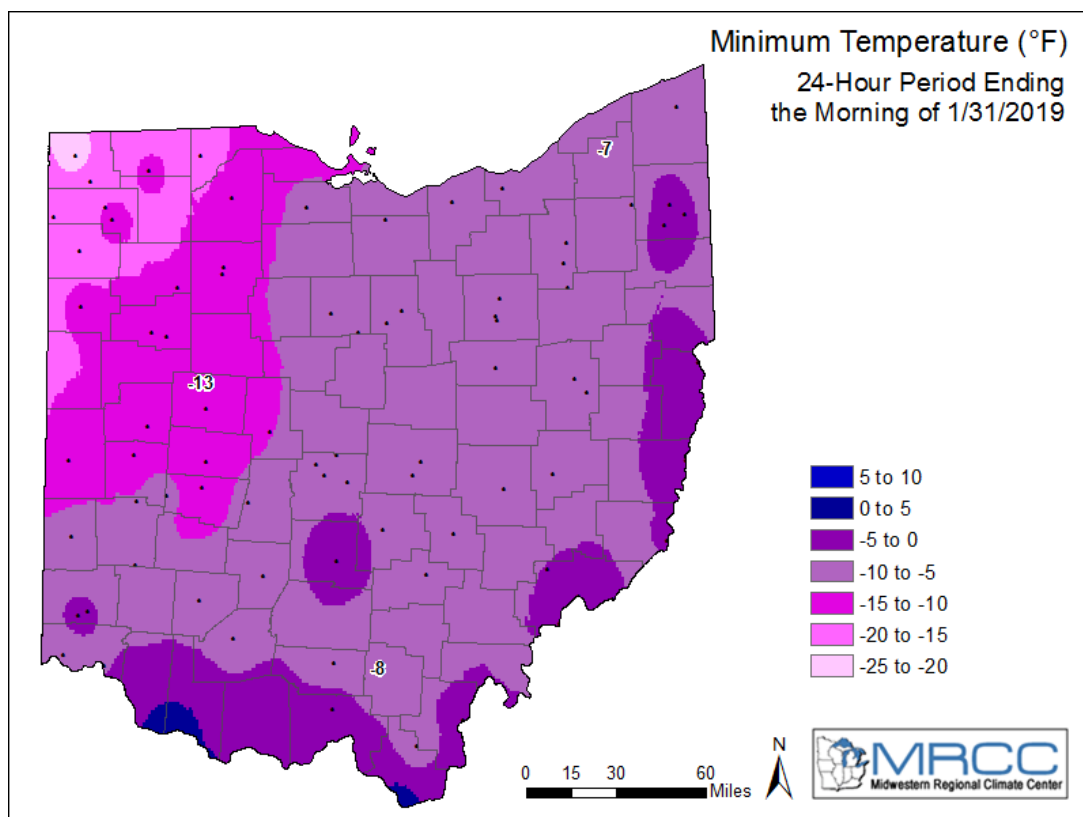
2019 Monthly Mean Temperature Deviation from 30-year average - Wooster



1st Freeze event: 21-22 January 2019



2nd Freeze event: 30-31 January 2019



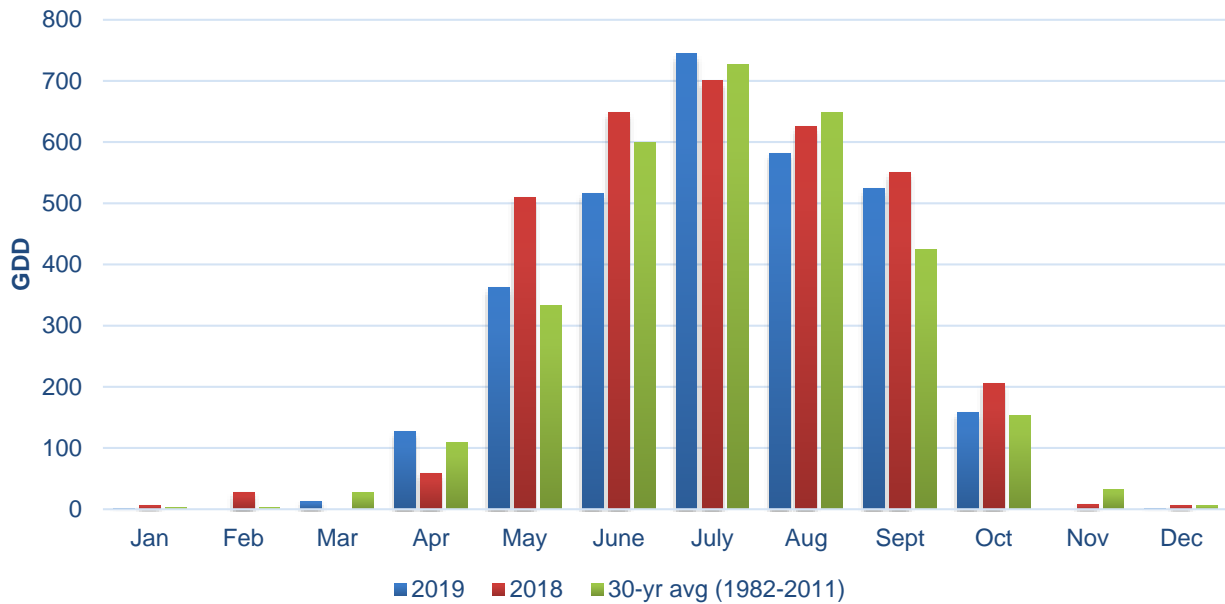
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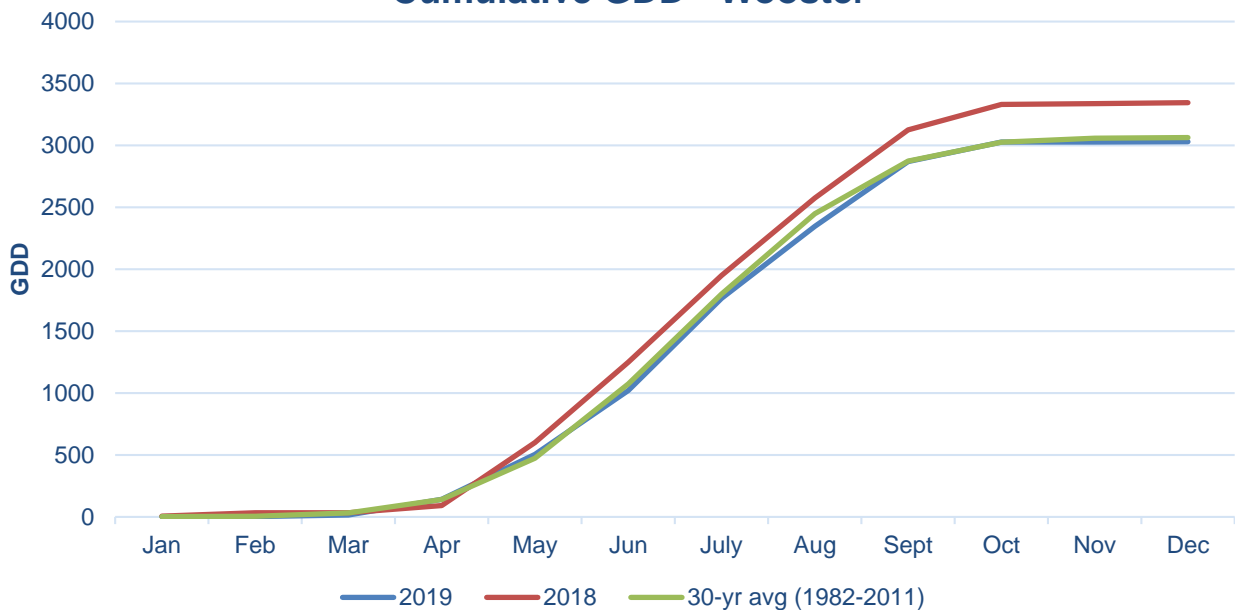
Weather: GDD

At the beginning of the growing season, GDDs were higher than normal in April and May, then cooled off in June. July accumulated the most GDD, more than the 30-year average and even more than 2018. The ripening period started cooler than normal in August, but September saved the 2019 season with more than 100 GDD above normal! Overall, the cumulative 2019 GDD was 3030, which was near normal (30-year avg = 3063 GDD), but much lower than 2018 (3345 GDD).

Monthly GDD - Wooster



Cumulative GDD - Wooster



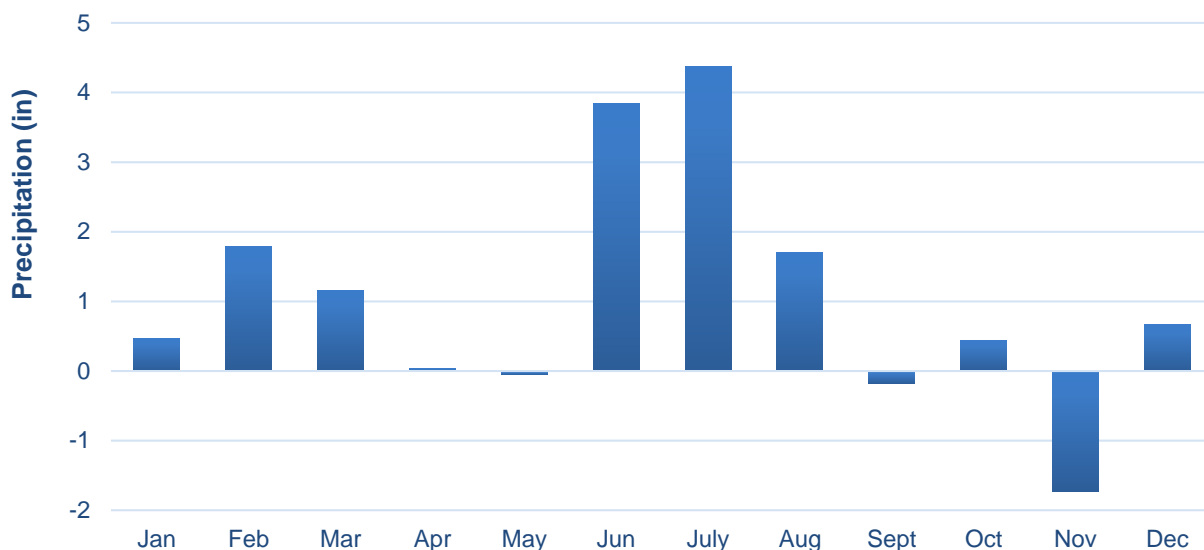
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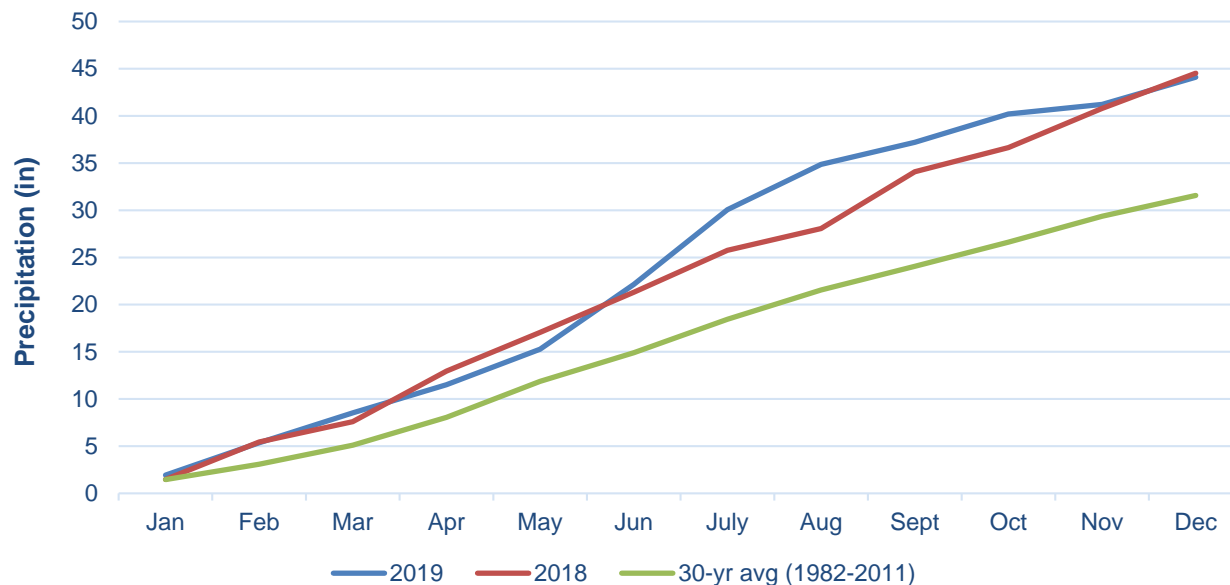
Weather: Precipitation

In terms of precipitation, “very wet” is the new normal. In fact, eight months of the year were wetter than normal, and the heaviest precipitation occurred in February, March, June, July and August. June and July were excessively wet with 8”+ above normal. Fortunately, the rain tapered off in late August and throughout September into November. Despite an annual precipitation of 44.1” (12.5” above normal), which was similar to 2018 (44.5”), Ohio experienced one of the worst droughts in years during the summer. The situation was dire for row crops, but ideal for grapevines. The dry weather during fruit ripening in 2019 (vs. wet in 2018) resulted in clean fruit.

2019 Monthly Precipitation Deviation from 30-year Average - Wooster



Cumulative Precipitation - Wooster



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Vineyard Notes:

2019 Winter injury: As mentioned earlier, vines sustained bud winter injury after exposure to -7.2 F in Wooster and was much higher in 2019 than in 2018. We also observed an increased extent of bud injury in March vs. January. Bud injury ranged between less than 5% in the Minnesota (MN) varieties to 100% in the usual suspects (Dolcetto, Merlot, and Syrah). The increased winter injury after “mild” freezing events may be the new norm, which is of concern, and was likely the result of a warming trend and fewer cooling units than grapevines normally accumulate in Ohio. Like in 2018, we adjusted pruning to compensate for bud loss by retaining more buds per vine except for the super cold hardy varieties.

Diseases and insects: The excessive rain in June through early August led to conditions conducive of disease infection. We observed downy mildew in the most sensitive varieties. However, we were able to contain its spread. During ripening, sour rot was again observed but minor and not as severe as in 2018. Insect wise, Japanese beetles came back again like every year, but defoliation was limited to edge rows.

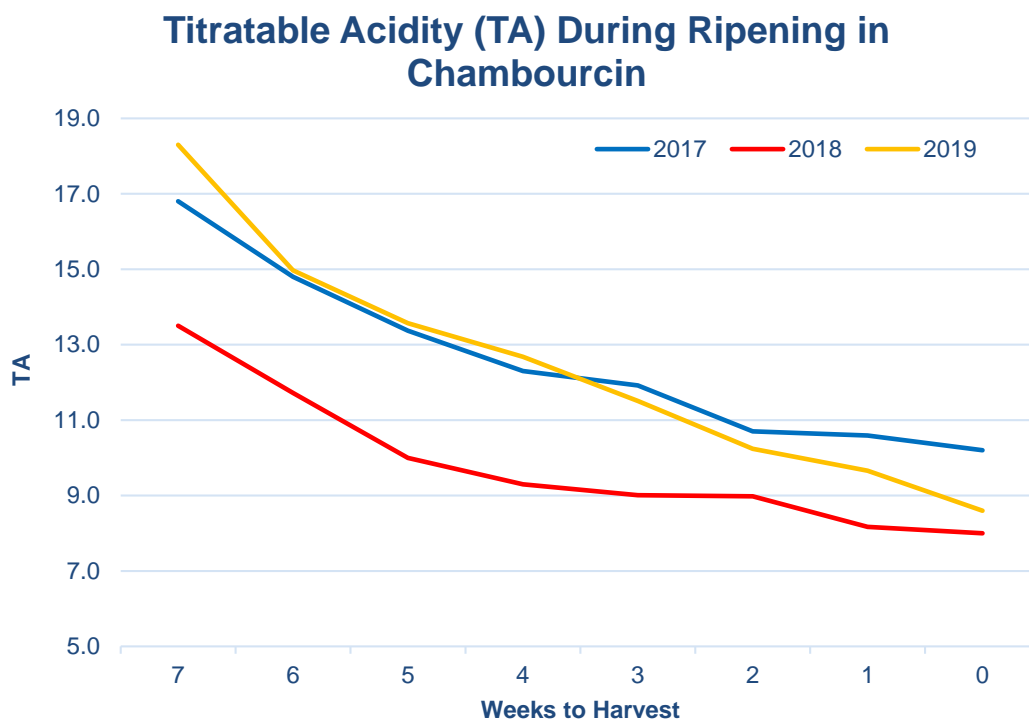
Fruit quality: In Wooster, we completed harvest in early October with our late ripening varieties, Cabernet franc and Chambourcin. Yield dropped in winter injured varieties despite bud adjustment, but was normal in cold hardy varieties. However, all varieties produced a very good to excellent fruit. The dry, warm, and sunny days and cool nights in September allowed fruit to ripen cleanly and develop optimum maturity numbers.

Harvest fruit composition of selected grape varieties at the **Wooster** research vineyard:

Variety	Harvest Date	100 Berry wt (g)	SS (%)	pH	T.A. (g/L)	FMI*
Cabernet franc	1-Oct	163	22.8	3.42	7.40	31
Chambourcin	9-Oct	211	22.9	3.33	8.6	27
Chardonnay	25-Sep	163	21.6	3.05	8.2	26
Regent	9-Sep	169	21.6	3.36	10.3	21
Sauvignon blanc	17-Sep	163	21.7	3.16	9.4	23

*FMI: Fruit Maturity Index = $SS/TA \times 10$.

How about the acids in the fruit? 2019 was reminiscent of 2017 in terms of GDD accumulation. Both years were definitely cooler than 2018. Further, the “mean temperature” during ripening (1 August to 31 October) was nearly the same between 2017 (63 F) and 2019 (64 F). A deeper look at the *night temperature* (or *minimum temperature*) revealed the same observation: similar night temperature in 2019 (53 F) and 2017 (52 F), but much cooler than in 2018 (56 F). So, you’re asking what does this has anything to do with fruit acidity? Well, air temperature plays a major role on acid dynamics. We know that the major acids (measured as titratable acidity or TA) in grapes are tartaric and malic acids which accumulate up to veraison. During fruit ripening, malic acid begins to drop through respiration. The warmer the weather the faster malic acid respiration (or degradation)(tartaric acid is more stable). The plots below summarize TA progression in Chambourcin during ripening by comparing 2017 (warm), 2018 (hot) and 2019 (warm). Since 2019 had many cool nights, malic acid did not drop as fast from respiration. The year 2107 and 2019 had similar TA but higher than 2018. Note the quick drop of TA near harvest during the warm month of September. Other factors, of course, may have played a role on the acid levels as well such as berry dehydration, formation of salts, canopy management, and variety.



In summary, we had a rough start of 2019, but we finished the season on a very high note and fully expect the 2019 vintage to be fantastic! Let’s hope for a 2019 vintage repeat in 2020 with “fewer” bumps along the journey.

Vineyard mulching anyone?

By: Imed Dami, HCS-OSU

Even though it is uncommon in Ohio, mulching has been practiced in vineyards around the globe for a long time. The discussion surrounding mulching vs. soil hilling for winter protection has made a recent come-back by the grape grower community. One of the main reasons is the new weather trend of excessive rain. In fact, Ohio experienced the wettest decade on record. Heavy rain causes soil erosion as well as erosion of soil mounds around the vines for graft union protection. The Polar vortex in 2014 is a good example of a combination of extreme minimum temperatures coupled with unusually wet winters which eroded soil mounds and exacerbated winter damage. It was the case in our research vineyard when we lost 90% of the vines due to exposed graft unions from soil erosion.

To address the topic of mulching and the level of interest by our growers, the OSU Grape Team has developed a series of questions for an online survey to solicit your input on the topic of mulching as an alternative to soil hilling for winter protection. Last week, we sent out a survey to grape growers in Ohio. This announcement serves as a friendly reminder to fill out the online survey. ***If you have not received the survey, please contact me at dami.1@osu.edu, and I will send you a link to the survey.*** Thank you for your cooperation with this project.



2020 Northeast Ohio Winter Grape School



Thursday, March 5th, 2020
2:00-6:00PM followed by
Tri-County Grape Growers meeting 6:00PM

Stonegait Winery
4275 Bates Rd. Madison, OH 44057

Registration starts at 1:30PM

**4275 Bates Rd, Madison,
OH 44057**

*Travel South from
Interstate 90 on Route
528-S, turn left onto
Route 307, turn left at
Bates Rd, the winery will
be on the right side of
road.*

Registration will begin at 1:30pm and the workshop will run from 2-5. Dinner at 5. Tri-County Grape Growers meeting will follow at 6 PM (Optional). See complete registration form on the back of this sheet. This workshop is being sponsored by OSU Lake and Ashtabula County Extension, the Ashtabula Agricultural Research Station, and OARDC. "A Chili day for Chili"



Topics :

- 2:00pm:** Dr. Imed Dami, Presentation on mulching as hilling up alternative
- 2:45pm:** Dr. Melanie Lewis Ivey, Pesticide Resistance in Grapes
- 3:30pm:** Eric Barrett, Mahoning County Extension, Agri-Tourism Safety
- 4:15pm:** Tom Dehaas (Lake County Extension), Miguel Preza (Local Nursery Manager),
Pesticide Mixing and Handling
- 5:00pm:** Dinner
- 6:00pm:** Tri-County Grape Growers Meeting

Refreshments

Chili, chips and drinks will be provided as part of the registration fee.

Private Applicator Credit

1 Hour of Core of Pesticide Education Credit



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

HORTICULTURE AND CROP SCIENCE

2020 GRAPEVINE PRUNING WORKSHOP

This workshop will cover the concepts behind pruning and training grapevines, as well as the basics of pruning technique. Participants will receive hands-on experience pruning vines on different training systems. Weather permitted, we will travel to the vineyard, so please dress appropriately. Feel free to bring your own pruning shears.

WEDNESDAY, MARCH 11, 1 PM TO 4 PM

Speakers: Dr. Imed Dami and Dr. Maria Smith

Location: OARDC-Fisher Auditorium | 1680 Madison Ave., Wooster, OH 44691

Cost: \$10 per person

Details: Fee covers refreshments and handouts

Registration: Diane Kinney | kinney.63@osu.edu or (330) 263-3814

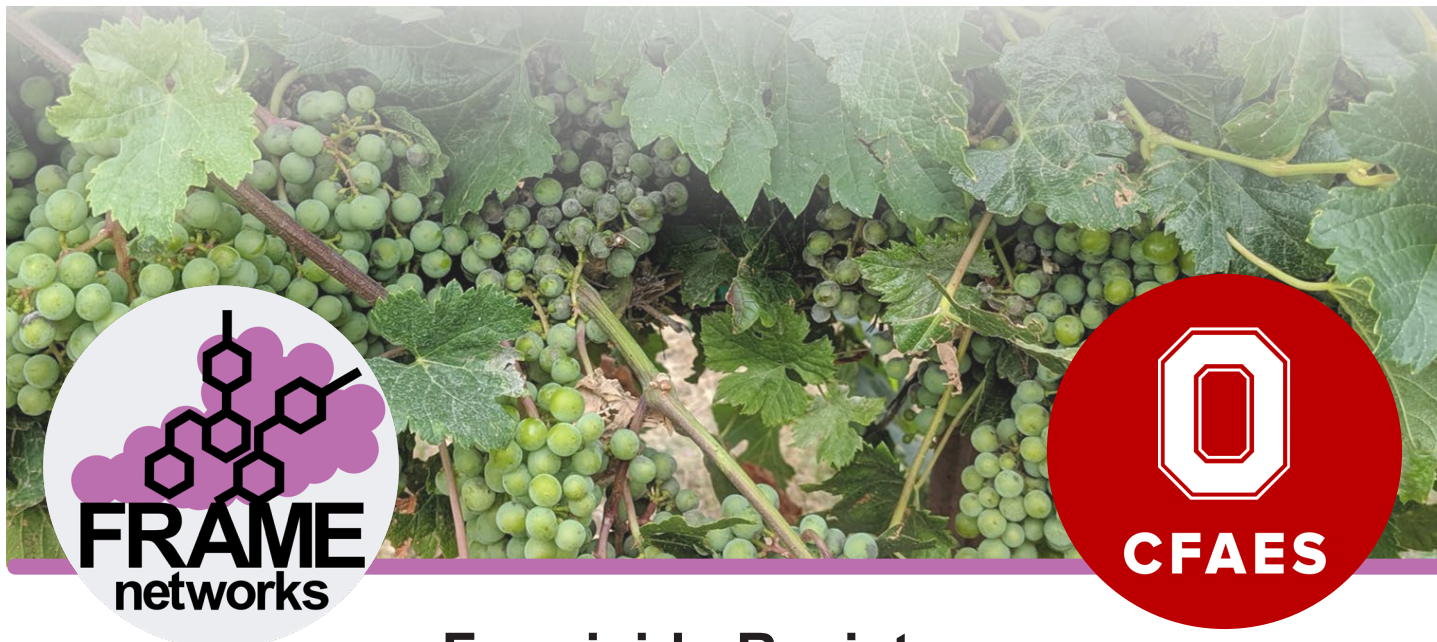
go.osu.edu/grapes



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— *We Sustain Life* —



Fungicide Resistance Management Full Day Workshop

SAVE THE DATE
February 16th 2020
Dublin, OH

This workshop is designed for crop consultants, vineyard managers or anyone who writes or recommends fungicide programs.

Preregistration is required. Registration using the 2020 Wine and Grape Conference Registration Form.
Registration is limited to 60 people.

Contact Dr. Melanie Lewis Ivey, ivey.14@osu.edu for more information.

For more information visit:  framenetworks.wsu.edu

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UC University
of California
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Extension

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This project is funded in part by the United States Department of Agriculture – National Institute for Food and Agriculture – Specialty Crop Research Initiative Award No. 2018-03375 titled "FRAME: Fungicide Resistance Assessment, Mitigation and Extension Network for Wine, Table, and Raisin Grapes; the Ohio Grape Industry Committee; and federal and state funds appropriated to The Ohio State University, Department of Plant Pathology.

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Fungicide Resistance Management Workshop
February 16, 2020
Dublin Ohio

Fungicide resistance to powdery and downy mildews is a growing concern for Ohio grape producers. Developing spray programs that slow the development of resistance in a vineyard can be challenging, especially when there are limited fungicides available that have different modes of action. This workshop is designed to assist crop consultants, vineyard managers or anyone who writes or recommends fungicide programs, with developing a fungicide spray program for wine or table grapes.

During the first part of the day, participants will learn about mildew diseases and management, best practices for using fungicides, and best sprayer practices, from national experts in grape diseases and fungicide resistance management. Participants will then break out into groups and build a spray program based on a real-life scenario. During the last part of the day each group will defend their spray programs and provide suggestions and advise to other groups on how each program could be improved.

REGISTRATION INFORMATION

- **Preregistration is required.**
- Registration costs are \$35 per person.
- Participants can preregister using the 2020 Wine and Grape Conference Registration form.
- Registration opens the week of December 9 and closes December 31 or when there are 60 participants registered.

Additional costs of this workshop are offset with financial support by USDA – NIFA – SCRI Award No. 2018-03375 titled “FRAME: Fungicide Resistance Assessment, Mitigation and Extension Network for Wine, Table, and Raisin Grapes; the Ohio Grape Industry Committee; and federal and state funds appropriated to The Ohio State University, Department of Plant Pathology.

2020 Ohio Grape and Wine Conference

Registration Information



February 17-18, 2020
Embassy Suites Columbus/Dublin
5100 Upper Metro Place, Dublin, OH 43017

The 2020 Ohio Grape and Wine Conference Overview

The Ohio Grape & Wine Conference (OGWC) will take place on February 17-18, 2020 at the Embassy Suites – Dublin/Columbus. The conference is jointly organized by the Ohio Grape Industries Committee (OGIC), The Ohio State University Extension, The OSU South Centers, Department of Horticulture and Crop Science Viticulture and Enology Programs at The Ohio State University – Wooster Campus and the Ohio Wine Producers Association (OWPA). The 2020 conference consists of both general and concurrent sessions covering a wide range of relevant topics for grape growers, winemakers and marketing staff. We are pleased to announce our featured speakers for 2020. The enology section will feature Dr. Thomas Henick-Kling, Director of the Viticulture and Enology Program and Enology Professor, Washington State University, as well as Andrew Meggitt, Executive Winemaker, St. James Winery. The viticulture section will feature Dr. Michelle Moyer, Associate Professor and Viticulture Extension Specialist at Washington State University and Dr. Paolo Sabbatini, Viticulture and Extension Specialist, Michigan State University. The marketing section will feature Marianne Frantz, Founder and President of American Wine School. Monday morning will begin with a half-day workshop for new growers and winemakers to the grape and wine industry. Topics will include: vineyard establishment, young vine management, and information for beginning commercial wine production. A panel of grape and wine producers will share their experiences in starting up new vineyards and wineries. The conference will formally open Monday afternoon with a welcome followed by presentations from our featured speakers and industry updates in the General Session. Tuesday will consist of full-day, concurrent sessions with technical presentations in viticulture and enology, as well as the inclusion of a marketing track.

Our featured speakers will cover the following topics:

- ✓ **Marianne Frantz: Tuesday Concurrent Sessions** – Ms. Frantz will conduct a wine and food pairing program, as well as share emerging trends in the wine and craft beverage business.
- ✓ **Dr. Thomas Henick-Kling: Monday General Session** – Dr. Henick-Kling will present his expertise on wine microbiology from harvest to bottling. **Tuesday Concurrent Sessions** – Dr. Henick-Kling will share his experience on the “best winemaking practices” he has observed from different regions of the world during his illustrious career.
- ✓ **Andrew Meggitt: Monday General Session** – Mr. Meggitt will cover the critical topic of maintaining wine quality despite high volume production and numerous labels being offered at St. James Winery. **Tuesday Concurrent Sessions** – Mr. Meggitt will present the merging of old and new world winemaking styles at St. James Winery. The importance of blending will also be covered within this presentation in addition to a tasting being provided.
- ✓ **Dr. Michelle Moyer: Sunday Workshop** – Dr. Moyer will provide a full-day workshop on fungicide information, techniques, and decisions to manage disease resistance. **Monday General Session** – Dr. Moyer will cover the past, present and future of pest management, which will include an overview on the topics discussed during the Sunday fungicide resistance management workshop.
- ✓ **Dr. Paolo Sabbatini: Tuesday Concurrent Sessions** – Dr. Sabbatini will discuss his research using early leaf removal (ELR) strategies in Michigan, with a focus on ELR mechanisms and physiology for yield and late-season disease management.

In addition to the featured speakers above, our in-state specialists from The Ohio State University – Wooster Campus and South Centers will also present valuable information and research updates in viticulture covering: climate change impacts on Ohio grape production, as well as updates on disease, insect, weed management, and viticultural practice effects on vine health and fruit quality. Topics covered in the enology concurrent session will include regulatory updates from the Ohio Division of Liquor Control and Ohio Fire Marshal, as well as critical cellar applications and processing techniques in the winery from in-state specialists, experts in the field and Ohio commercial winemakers.

**The topics scheduled are subject to change without notice*

**Final program agenda will be sent early in the New Year*

Additional Highlights of the 2020 Conference:

- ✓ A mixture of topics for both new and advanced grape growers, wine producers and marketing staff, covering three tracks in viticulture, enology and marketing.
- ✓ We are currently working with the Ohio Department of Agriculture (ODA) to obtain pesticide recertification credits for educational sessions involving disease, weed, and insect management.
- ✓ Full 2-day registration at a low rate of \$210, with a discounted rate provided for more than two individuals attending from one establishment or family. Full registration includes access to the Monday morning special focus viticulture and enology workshop, all technical sessions and trade show. Social events and meals are also included: Monday – buffet lunch; Ohio wine reception, and banquet on Monday evening; and buffet lunch on Tuesday. You are also entitled to a conference packet and flash drive with Power Point presentations provided at registration.
- ✓ Special passes are also available for better accessibility and flexibility of the conference. Passes include: Monday Special Focus Workshop pass; 1-day conference pass; complimentary student registration (not including meals and flash drive) and conference pass with meal options.
- ✓ An expanded two-day trade show with both vineyard and winery equipment and services
- ✓ Technical session format: In addition to the special Monday morning viticulture and enology combined workshop, there will be general and additional concurrent sessions all day Tuesday in enology, viticulture and marketing which allows for more choices for attendees.
- ✓ Special events include: Ohio commercial wines featured at the Ohio Wine Reception, “OQW” and/or 2019 Director’s Choice award-winning wines paired with mouthwatering entrees at the Monday evening banquet and select Ohio Wine Competition medal award-winners at the Tuesday buffet lunch.
- ✓ After banquet social providing a good place and time to socialize and network with members of the Ohio grape and wine industry.

Join us and experience the 2020 OGWC. We hope to see you there!

Sincerely,

OGWC Planning Group - Ohio Grape Industries Committee; Department of Horticulture & Crop Science, The Ohio State University; The Ohio State University – Wooster Campus and South Centers; and Ohio Wine Producers Association



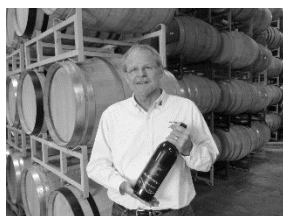
2020 Ohio Grape and Wine Conference Featured Speakers

Marianne Frantz, Founder and President, American Wine School



After several years of producing wine events across the country and leading wine tours in Bordeaux, France for American Express, Marianne Frantz founded the American Wine School in 2001. A Certified Wine Educator, Ms. Frantz holds a diploma in Wine & Spirits from the Wine & Spirit Education Trust (WSET) of London and has also earned the Advanced Sommelier qualification from the Court of Master Sommeliers. After successfully participating in an educational competition sponsored by the Wines of Australia in the spring of 2008, Ms. Frantz became an educational ambassador for Wine Australia USA. She is also a Certified Spanish Wine Educator, a Certified Rioja Educator and a Certified Bourgogne Educator. Ms. Frantz launched the Wine Scholar Guild courses in Chicago and is a French Wine Scholar.

Dr. Thomas Henick-Kling, Director Viticulture and Enology Program and Professor of Enology, Washington State University



Dr. Thomas Henick-Kling was trained in microbiology, biochemistry, and geography in Germany, USA, and Australia. He has commercial and experimental winemaking experience and extensive knowledge of wines from USA, Europe, Australia and New Zealand. Dr. Henick-Kling's research includes the physiology and molecular characterization of lactic acid bacteria and wine yeast, microbial ecology of grapes and wine, modification of wine flavor by yeast and bacteria, and winemaking technology. He is active in several national and international professional societies. Dr. Henick-Kling is a wine judge and a reviewer for several scientific journals.

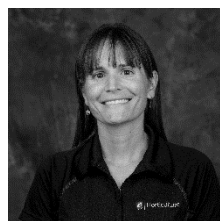
Andrew Meggitt, Executive Winemaker, St. James Winery



Andrew Meggitt is the Executive Winemaker and Production Specialist at St. James Winery, St. James Missouri. Mr. Meggitt has been producing wines for over 20 years, specializing in quality award-winning wines from a variety of appellations. Recent awards include "Best of Class LA International", "Double Gold Best of Class, San Francisco International"; and "Indy International Best of Class Awards." A native of New Zealand, Mr. Meggitt has been enjoying life in the Ozarks for 17 years. A three-year travel adventure around the world following university influenced not only his outlook on life, but shaped his perception of winemaking styles, shaped future methodology and ultimately reinforced his desire to be part of the wine industry and encourage others to enjoy the wine experience. Under his direction as executive winemaker, St. James

Winery has consistently been among the top four gold medal awarded wineries in the US for the past 10 years. In 2015, St. James Winery was named one of the "Top 15 Wineries in the World" by the World Wine Writers Association. Mr. Meggitt is a member of the Rolla City Parks Board, Technical Committee for the National Grape Research Alliance, President of Rolla Area Youth Soccer, and a Board Member of the Knights Soccer Club. Mr. Meggitt enjoys spending time with family, running, coaching soccer, camping, hiking, tennis, fishing, and mountain biking.

Dr. Michelle Moyer, Assistant Professor/Viticulture Extension Specialist, Washington State University



Dr. Michelle Moyer is an Associate Professor and Viticulture Extension Specialist at Washington State University. Located at the Irrigated Agriculture Research and Extension Center in Prosser, Washington, her research and extension programs focus on integrated pest management, decision support systems, and general education and training in wine and juice grape production. Dr. Moyer received her BSc degree in Genetics and Plant Pathology from the University of Wisconsin-Madison, and her PhD in Plant Pathology at Cornell University.

Dr. Paolo Sabbatini, Viticulture and Extension Specialist, Michigan State University



Dr. Paolo Sabbatini is an Associate Professor of Viticulture in the Department of Horticulture at Michigan State University with Research (50%), Extension (40%) and Teaching (10%) responsibilities. His research focus is on vine physiology with an emphasis on cultural factors limiting vine production and fruit quality and their interaction with biotic and abiotic stress. Carbon assimilation, storage and partitioning are tools for his studies to understand vine productivity and fruit quality. Dr. Sabbatini has state responsibilities for evaluation of wine cultivar of *Vitis vinifera* and mixed species with several ongoing research projects funded by MGWIC (Michigan Grape Wine and Industry Council), MDA (Michigan Department of Agriculture), USDA, NSF and MSU Project GREEN on crop load balance for achieving highest sustainable yields in juice grapes, canopy management in wine grapes to

improve fruit quality, determination of action thresholds of pest and diseases in common Michigan wine grape cultivars and viticultural approaches to reduce bunch rot in wine grapes.

Lodging Information

Hotel reservations should be made directly with the hotel. Mention the “**GW2**” for special rate.

Embassy Suites Columbus-Dublin

5100 Upper Metro Place

Dublin, Ohio 43017

1-800-220-9219

www.columbusdublin.embassysuites.com

On-Line Reservations:

https://embassysuites.hilton.com/en/es/groups/personalized/C/CMHESES-GW2-20200215/index.jhtml?WT.mc_id=POG

**90 rooms blocked for Sunday evening and 140 rooms blocked for Monday evening*

Rate:

\$116 + tax (includes full hot and cold breakfast buffet, including a cooked-to-order omelet station and complimentary evening reception with light snacks and beverages of your choice.)

cut-off date **January 25, 2020 by midnight or until the room block is sold out, whichever comes first, so be sure to make your reservations early to avoid not receiving the specified room rate*

Driving Directions

From the North:

Take any major highway to I-270. Take I-270 West to US 33 E/OH-161 E towards Dublin. Turn right onto Frantz Road. Turn right onto Upper Metro Place. Hotel is located on the right.

From the West:

Take any major highway to I-70 East. Take I-270 North to US 33 E/OH-161 E towards Dublin. Turn right onto Frantz Road. Turn right onto Upper Metro Place. Hotel is located on the right.

From the East:

Take any major highway to I-70 West. Take I-70 West to I-270 North to US 33 E/OH-161 E towards Dublin. Turn right onto Frantz Road. Turn right onto Upper Metro Place. Hotel is located on the right.

From the South:

Take any major highway to I-71 North. Take I-71 North to I-270 West. Take I-270 West to US 33 E/OH-161 E towards Dublin. Turn right onto Frantz Road. Turn right onto Upper Metro Place. Hotel is located on the right.

Special Focus Workshop - Fungicide Resistance Management

Sunday, February 16, 2020

Fungicide resistance to powdery and downy mildews is a growing concern for Ohio grape producers. Developing spray programs that slow the development of resistance in a vineyard can be challenging, especially when there are limited fungicides available that have different modes of action. This workshop is designed to assist crop consultants, vineyard managers or anyone who writes or recommends fungicide programs, with developing a fungicide spray program for wine or table grapes.

During the first part of the day, participants will learn from national experts in grape diseases and fungicide resistance management, about mildew diseases and management, best practices for using fungicides, and best sprayer practices. Participants will then break into groups and build a spray program based on a real-life scenario. During the last part of the day each group will defend their spray programs and provide suggestions and advice to other groups on how each program could be improved.

For more information on the workshop please contact Dr. Melanie Lewis Ivey (ivey.14@osu.edu; 330-263-3849).

Registration Information:

- **Pre-registration is required - \$35/attendee**
- Participants can pre-register using the 2020 Wine & Grape Conference registration form included in this packet.
- Registration closes on January 3, 2020, or when there are 60 participants registered.



Additional costs of this workshop are offset with financial support by USDA – NIFA – SCRI Award No. 2018-03375 titled "FRAME: Fungicide Resistance Assessment, Mitigation and Extension Network for Wine, Table, and Raisin Grapes; the Ohio Grape Industries Committee; and federal and state funds appropriated to The Ohio State University, Department of Plant Pathology.

Confirmed Exhibitors (as of 11/19/19)

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| ✓ Collinwood Grape and Grape Juice | ✓ The Ohio State University – Wooster Campus |
| ✓ Criveller Group | ✓ Paul Hall & Associates |
| ✓ Double A Vineyards | ✓ Presque Isle Wine Cellars |
| ✓ George F. Ackerman Company | ✓ Prestige Glassware |
| ✓ Green Hoe Company | ✓ PromoGirl/WyneGirl |
| ✓ Hanna Instruments | ✓ Prospero Equipment Corp. |
| ✓ JustPerfect Vinegar | ✓ Scott Laboratories |
| ✓ Kendall Farms | ✓ Spec Trellising |
| ✓ Kent State University Ashtabula | ✓ Superior Wind Machines |
| ✓ Mammoth Labels and Packaging | ✓ Tilmor |
| ✓ Misco Refractometer | ✓ Waterloo Container |
| ✓ Ohio Division of Liquor Control (Tuesday) | ✓ Wiemer Nursery |
| ✓ Ohio Wine Producers Association | |



2020 Wine Conference Preview Day: **Sit, Sip and Learn** **Embassy Suites Dublin/Columbus** Sunday, February 16, 2020

A day-long workshop, presented by the Ohio Wine Producers Association as a supplement to the 2020 Ohio Grape & Wine Conference, will begin at 9 a.m. with panels of experts addressing business and marketing considerations to assure success. Several guest speakers will address the major topics, some very valuable information will be addressed via handouts.

9:00 Meet and Greet

9:30 Business considerations – a plethora of key information to get you started on the right track

Finding good legal advice

Accountants - considerations before you select an accountant

Benefits and obstacles with sole proprietorships, LLC vs. corporations

Application and Permitting--- TTB and ODL

Winery farm exemptions

Labeling – TTB and Ohio registration requirements

Solicitors information – ODL

A practical guide to launching a vineyard

Sourcing vines

Equipment sources

Temporary permit requirements

Tasting opportunities and limitations

KSUA class offerings

Estate planning and exit plans

Deadly 'sins' to avoid: Ag zoning/Shiners/Tied house/Fire marshal

OGIC programming opportunities

Crisis management

Contact lists

Association member benefits

10:00: Finding money -- grants, banks, USDA low interest loans

10:50: EPA and health department considerations

11:25 Insurance needs and considerations

12:15 Lunch

1:30 Social Media and web site usage-

1:50 Label design and development

2:35 Break

2:45 Tasting room and customer service training

3:15 Vendor panel – finding and working with suppliers to the industry

4:15 Winery veteran panel – learning from their successes and mistakes

5:30 -6:30 Informal reception for attendees and vendors

An investment in your future success:

Registration: \$145 for the first person, \$90 for the second from the same organization and includes welcome coffee, lunch, the wine reception, guest presentations and meeting materials. Visit www.OhioWines.org/tickets to reserve a slot. [This is a separate but complementary preview program to annual Ohio Grape and Wine Conference and is designed to help newly-opened wineries, as well as those who are considering launching a new winery organization.]



2020 Ohio Grape and Wine Conference Registration

February 16-18, 2020

Name:		Company:		
Address:		City:	State:	Zip:
Phone:	Fax:	Email:		

Check here if you are willing to share your contact information with other conference attendees and vendors. ☐

Please check which track you are **most likely** to follow throughout the conference: ☐ Enology ☐ Viticulture ☐ Marketing (*Tuesday Only*)

Additional Registrants:	Enology	Viticulture	Marketing
Name:			
Name:			
Name:			

Each registrant has the option to choose full or partial registration for the conference. Not all of a company's registrants are required to follow the same path or attend the same parts of the conference.

Full Registration: *Includes access to all technical sessions and the trade show on Monday and Tuesday, NOT SUNDAY.* Social events and meals (buffet lunch - Monday and Tuesday); afternoon breaks - Monday and Tuesday: Ohio wine reception and banquet are all included. Each registering **company** will also receive a flash drive holding all of the Power Point presentations shared during the conference (one flash drive per winery/family/organization.)

Registration Type	Quantity	Fee before or on January 25**	Fee after January 25	Total \$
Full Registration – Sunday not included (first and second attendee)		\$210 Per Attendee	\$225 Per Attendee	
Full Registration (all attendees after company's second)		\$180 Per Attendee	\$195 Per Attendee	

Partial Registration: This type of registration allows you to only attend selected aspects of the conference. Partial registration **does not** include meals or social events. **In order to receive meals and social event access, please refer to meal registration box.**

Registration Type	Quantity	Fee before or on January 25**	Fee after January 25	Total \$
Special Sunday Workshop: Fungicide Resistance Management <i>(limited to first 60 attendees to register – lunch included in cost)</i>		\$35	N/A	
Special Monday Morning Workshop: (New Grower and Winery) <i>Doesn't include buffet lunch</i>		\$70	\$85	
Conference Pass: <i>Includes entrance to all specialty, general and concurrent sessions and NO meals.</i>		\$125	\$140	
One-Day Conference Pass: <i>Same as Conference Pass registration, but only for one day of the conference. Excludes meals.</i>	Monday:	\$90	\$105	
	Tuesday:			
Same Day Conference Pass: <i>Purchasing the One-Day Conference Pass the day of the conference. Excludes meals.</i>		N/A	\$115	
Student Pass: <i>Complimentary access to conference & trade show. Excludes meals & flash drive.</i>		N/A	N/A	

Meals: If purchasing partial registration, meals must also be purchased separately. **These may NOT be purchased the day of the conference.**

Meals (Price is Per Attendee)	Quantity	Fee before or on January 25**	Fee after January 25	Total \$
Buffet Lunch (<i>Monday</i>)		\$30	\$35	
Ohio Wine Reception (<i>Monday Evening</i>)		Included for all Conference Attendees	Included for all Conference Attendees	--
Banquet featuring Ohio Quality Wines and/or 2019 Director's Choice Award-Winners (<i>Monday evening after Ohio Wine Reception</i>)		\$75	\$85	
Breakfast Buffet (<i>Tuesday Morning – if staying at hotel is already included in room rate</i>)		\$20	\$25	
Trade Show Buffet Lunch Featuring Ohio Wines (<i>Tuesday</i>)		\$30	\$35	

Please indicate and describe special dietary needs here: _____

Total Amount Enclosed for All Registration and Meals*	\$
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Select Form of Payment: ☐ Check (*made payable to Ohio Dept. of Agriculture*) ☐ Discover ☐ MasterCard ☐ Visa
 Credit Card Number: _____ Verification Code: _____ Expiration Date: _____
If credit card billing is different than address above, please list billing information below:
 Address: _____
 City: _____ State: _____ Zip: _____

**Discount applies to all registrations postmarked on or before January 25, 2020

Please note, no refunds will be made after January 25, 2020

Questions:
 Contact: Christy Eckstein
 Phone: 614-728-6438
 Fax: 614-466-7754
christy.eckstein@agri.ohio.gov
Return form & payment to:
 Ohio Grape Industries Committee
 8995 East Main Street
 Reynoldsburg, OH 43068

Name & Address	Phone	Email	Area of Expertise & Assistance Provided
Dr. Imed Dami, Professor & Viticulture State Specialist Horticulture & Crop Science 216 Gourley Hall - OARDC	330-263-3882	email: dami.1@osu.edu	Viticulture research and statewide extension & outreach programs.
Dr. Doug Doohan, Professor Horticulture & Crop Science 116 Gourley Hall - OARDC	330-202-3593	email: doohan.1@osu.edu	Vineyard weeds and control. Recommendation on herbicides.
Dr. Gary Gao, Professor & Small Fruit Specialist OSU South Centers 1864 Shyville Rd., Piketon, OH 45661 OSU Main Campus, Rm 256B, Howlet Hall, 2001 Fyffe Ct., Columbus, OH 43210	740-289-2071 Ext. 123 Fax: 740-289-4591	email: gao.2@osu.edu	Viticulture research and outreach in Southern Ohio.
Dr. Melanie Lewis Ivey, Asst. Professor Plant Pathology 224 Selby Hall - OARDC	330-263-3849	email: ivey.14@osu.edu	Grape diseases, diagnostics, and management. Recommendation on grape fungicides and biocontrols. Good agricultural practices and food safety recommendations.
Diane Kinnney, Research Assistant Horticulture & Crop Science 218 Gourley Hall - OARDC	330-263-3814	email: kinnney.63@osu.edu	Vineyard and lab manager - viticulture program. Website manager for Buckeye Appellation website.
Andrew Kirk, AARS Station Manager Astabula Agricultural Research Station 2625 South Ridge Rd. Kingsville, OH 44048	440-224-0273	email: kirk.197@osu.edu	Viticulture research and outreach in northeastern Ohio.
Dr. Erdal Ozkan, Professor Food Agriculture & Biological Engineering 590 Woody Haes Drive Columbus, OH 43210	614-292-3006	email: ozkan.2@osu.edu	Pesticide application technology. Sprayer calibration.
Patrick Pierquet, Research Associate Horticulture & Crop Science 220 Gourley Hall - OARDC	330-263-3879	email: pierquet.1@osu.edu	Wine cellar master. Enology research, micro-vinification, sensory evaluation, and laboratory analysis.
Dr. Maria Smith, Viticulture Outreach Specialist Horticulture & Crop Science 205 Gourley Hall - OARDC	330-263-3825	email: smith.12720@osu.edu	Maria is the primary contact for viticulture extension and outreach. Evaluation of site suitability for vineyard establishment and all aspects of commercial grape production.
Todd Steiner, Enology Program Manager & Outreach Horticulture & Crop Science 118 Gourley Hall - OARDC	330-263-3881	email: steiner.4@osu.edu	Todd is the primary contact for enology research and extension. Commercial wine production, sensory evaluation, laboratory analysis/setup and winery establishment.