

Ohio Grape–Wine Electronic Newsletter

Editor: Christy Eckstein, Executive Director,
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ohiograpeweb.cfaes.ohio-state.edu/



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30 June 2018 (6)

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

Grape Phenology:

In Wooster, all varieties completed bloom by June 11 (see Table below). By the end of June, Cabernet franc (see photo below) and all other varieties reached the pea-size stage of berry development. This is an important stage, at which grapevines had passed the most critical period of infection by most important fungal diseases. It is also the stage when key canopy management practices should have been completed by now (read more in section below).

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

Variety	50% Bloom	GDD 1 Jan - Bloom	GDD 1 Apr - Bloom
Arandell	10-Jun	729	701
Aromella	4-Jun	650	622
Cabernet franc	10-Jun	729	701
Chambourcin	4-Jun	650	622
Chardonnay	4-Jun	650	622
Frontenac	30-May	543	515
Frontenac gris	30-May	543	515
La Crescent	31-May	568	540
Marquette	31-May	568	540
Riesling	11-Jun	747	720
Traminette	11-Jun	747	720

Photos of phenology progression of Cabernet franc:



Cab franc (29 Mar 18)



Cab franc (25 Apr 18)



Cab franc (29 May 18)

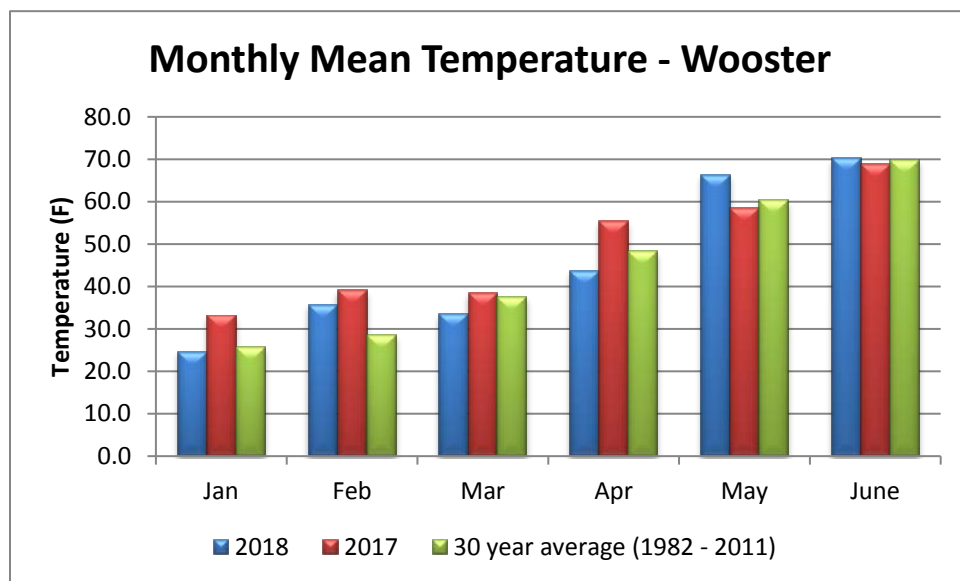
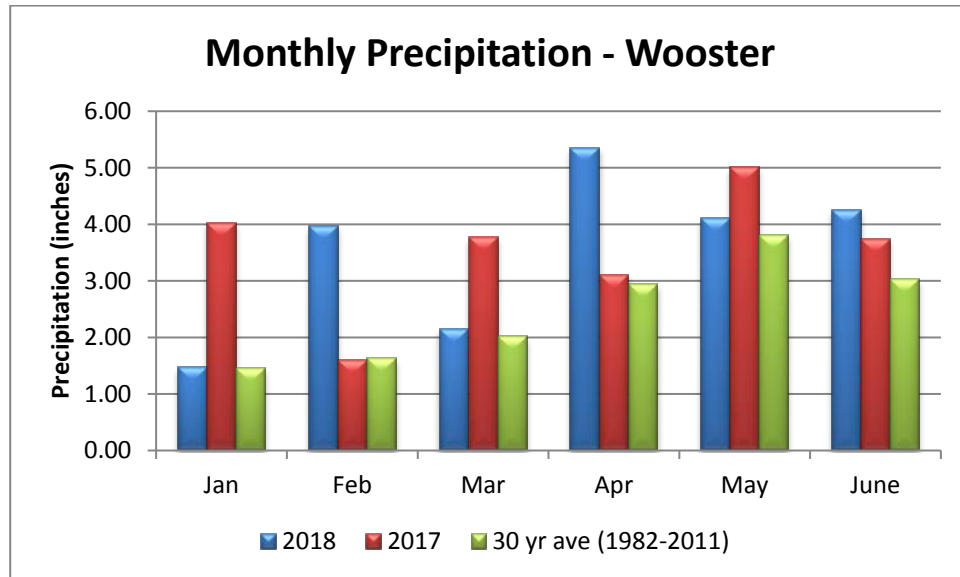


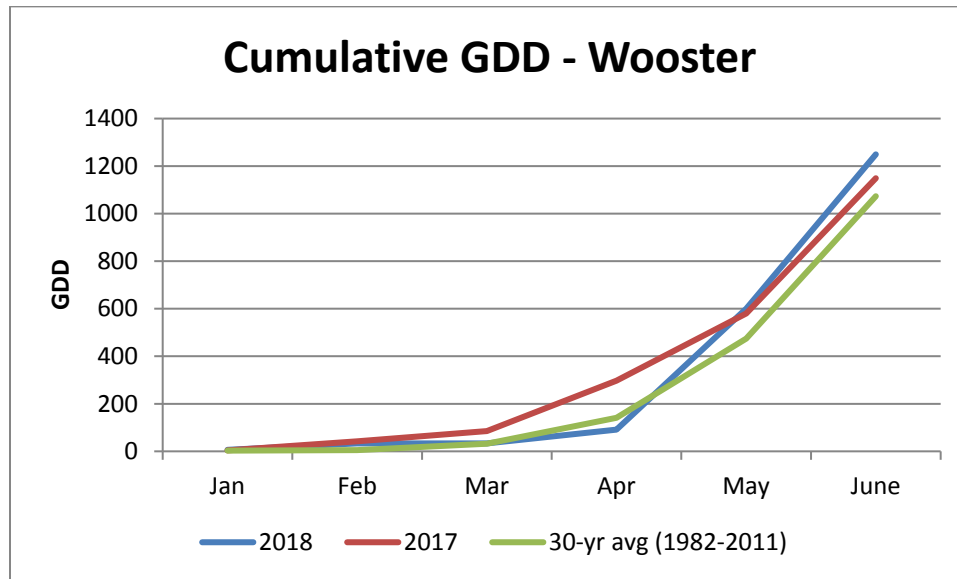
Cab franc (27 June 18)

Weather Conditions:

In Wooster, rain during the month of June added another 5" to the yearly total of 21.32", or 6.42" higher than the 30-year avg (14.9"). Mean temperatures remained consistently in line with the 30-year monthly mean temperature at 70.3 °F. Despite the slow start of heat accumulation, GDD picked up in May and was near normal in June. As a result, the cumulative GDD has stayed ahead of the 30-year avg. by roughly 176 units for a year-to-date total of 1,249 GDD.

So, to sum up the weather thus far, it has been **rainy** and **warm** (and hot at times), which is just about **normal** (if there is such a thing) at this time of year in Ohio. Drier weather in coming weeks would be welcome, but not guaranteed unfortunately.





Cultural Practices:

June is canopy management month. We have completed shoot suckering (at least twice in some varieties), shoot positioning, or tucking of vinifera on VSP. Combing of hybrids on high wire is an on-going task since vines don't seem to stop growing in every direction. We have started leaf pulling in late June and will continue in early July. It is recommended that leaf pulling be conducted between post fruit set to pea-or marble size, but before veraison. In our vineyard, we leaf pull on the cool side of canopy in white varieties; we pull leaves on both sides of canopy in red varieties. This of course is merely a general guideline to follow; variety, vine, vigor, weather, fruit exposure, heat/sunlight intensity, wine style, all enter into consideration of how many leaves (or none) to remove. We will soon estimate crop and drop clusters in some varieties. Please watch the newly –released video by our program on canopy management at this link: <https://ohiograpeweb.cfaes.ohio-state.edu/video>

Japanese beetles (JB) made their appearance during last week of June and we adjusted our spray program by including an insecticide. Make sure you watch for JB and spray vines timely especially young vines, which are the most susceptible. Information on management of insects and diseases can be found at the following links:

- 2018 Developing a Grape Fungicide Program Guide: <https://cpb-us-w2.wpmucdn.com/u.osu.edu/dist/b/28945/files/2017/08/2018-Grape-Fungicide-Spray-Guide-V3-branded-002-1j4wtnc.pdf>
- Midwest Fruit Pest Management Guide 2018: <https://ag.purdue.edu/hla/Hort/Documents/ID-465.pdf>

Ashtabula Agricultural Research Station

June 27, 2018

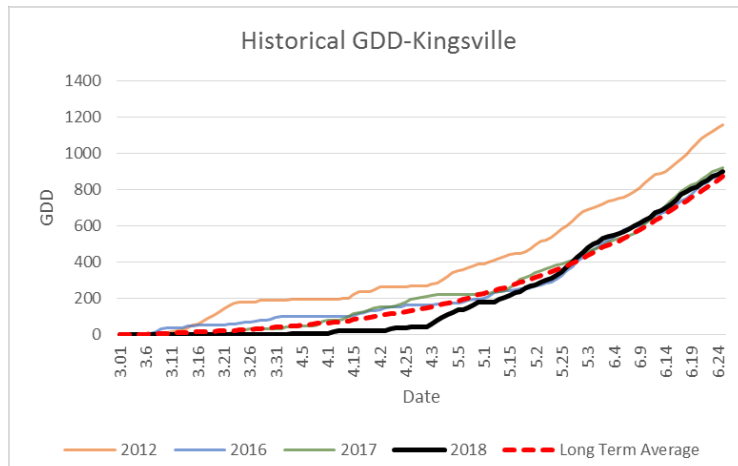
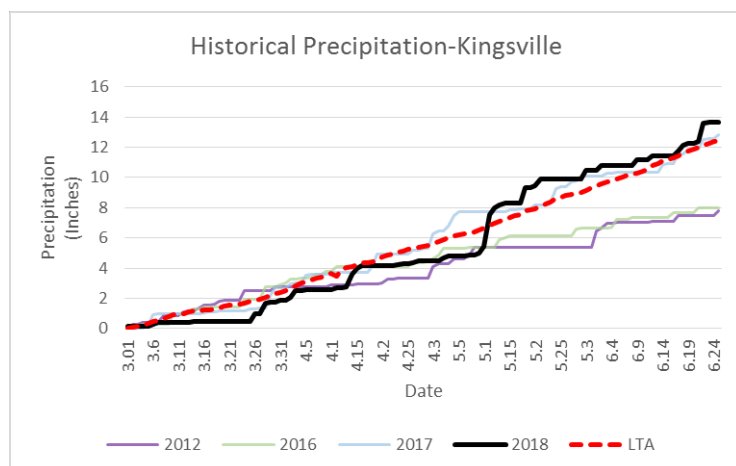
Andy Kirk

AARS Vineyard Update

As of the 27th of June, almost all of our 30-plus varieties have gone through fruit set. After a very choppy start to growth, canopies in most of our blocks have begun to fill the trellis, as well as reach the third catch wire. In late May, we put about 50-75lbs/acre of Urea down in our vineyard. In addition to this being a standard practice described in the Midwest Grape Production Guide, I was also motivated by petiole testing we conducted last year which showed low nitrogen levels in plant tissue of several AARS vineyards.

From a zoomed out lens, GDD and precipitation patterns have been not far from their long term averages. Precipitation has been a little on the high side overall, with a dry spell in late May and early June giving way to a spike in precipitation here in late June. GDD has run very close to average since March. As a quick statistical side note, it is striking how consistent, and aligned with the average, spring GDD have been the last three years. I won't bore you with the numbers, but let's hope the rest of our 2018 vintage is on par with 2016 and 2017!

Figure 1 & 2: Historical Precipitation and GDD at Kingsville



Despite the appearance of an uneventful spring, I, for one, found it to be a challenging time for preventing disease. I have told this story a few times now, but it seemed like each time I would put a spray on, it was followed by a stretch of 80 degree days, and thus 4 or 5 inches of new canopy growth which had not been protected. In our vineyard, as well as the four or five I've been to in the Tri County area this spring, I have seen some incidence of Phomopsis, particularly on the basal leaves. That leaves me to suspect that many of us were a little slow to get the first spray on. Since discovering this Phomopsis at AARS, I have been keeping to the tighter side of spray interval ranges and paying particular attention to spray timing relative to possible infection events. I am especially trying to avoid cluster infections at this juncture, as they are particularly insidious and do not become apparent until harvest

season. I have found this [OhioLine Resource](#) on Phomopsis to be very useful over the years. As always, please see Dr. Ivey's [Wine Grape Fungicide Spray Program](#) for specific instructions on developing your fungicide spray program.

Figure 3: Early Leaf Removal in Pinot Gris (AARS)



Note: Recent research varies in its conclusion as to how aggressive one should be with ELR, and how quickly and completely the vine will recover to an appropriate leaf area: fruit weight ratio. At early flowering, AARS removed the basal 3 or 4 leaves, which corresponded to the height our first catch wire.

In several AARS production blocks, including our Pinot Noir and Pinot Gris blocks, we tried Early Leaf Removal (ELR) this year. In recent years, there has been a lot of research coming out about this practice. If applied correctly, it has been demonstrated to reduce cluster compactness and, in some cases, result in improvements to fruit quality. The aspirational goal behind this practice would be to achieve the myriad benefits of an open fruiting zone, while simultaneously eliminating the need for crop thinning later in the season. I would encourage those interested to read this [2017 review](#), written by some familiar names from Pennsylvania State University's Viticulture program. I would also strongly encourage growers to consult with OSU Viticulture Extension personnel before diving into aggressive Early Leaf Removal, particularly in a year like this year where there has been a slow spring and lingering concern over winter damage.

On the note of crop reduction, the damage to primary and secondary buds in the January cold event has become evident. In Kingsville, we were fortunate not to experience heavy damage. Still, of our 30-plus varieties, some varieties will not be producing a crop this year, and will need to have their cordons re-established. Of our commercially significant varieties not tied up in research studies, Gruner Veltliner is one which experienced damage, although it is recovering nicely. Often this spring, we have found that shoots pushed from the base of a spur, even if the buds of a spur were damaged over the winter (Figure 4). Please consult with Dr. Dami regarding optimal strategies for rehabilitating vines after winter damage.

Figure 4: Emergent Shoot from Basal Bud at AARS



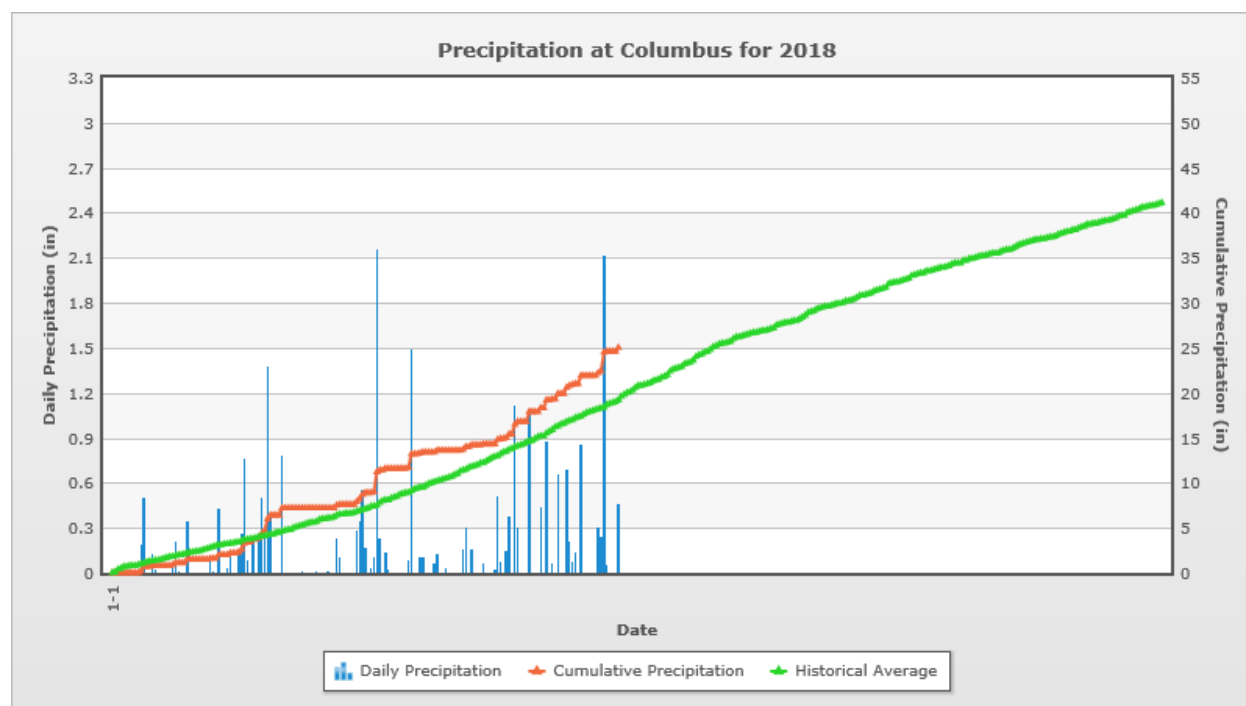
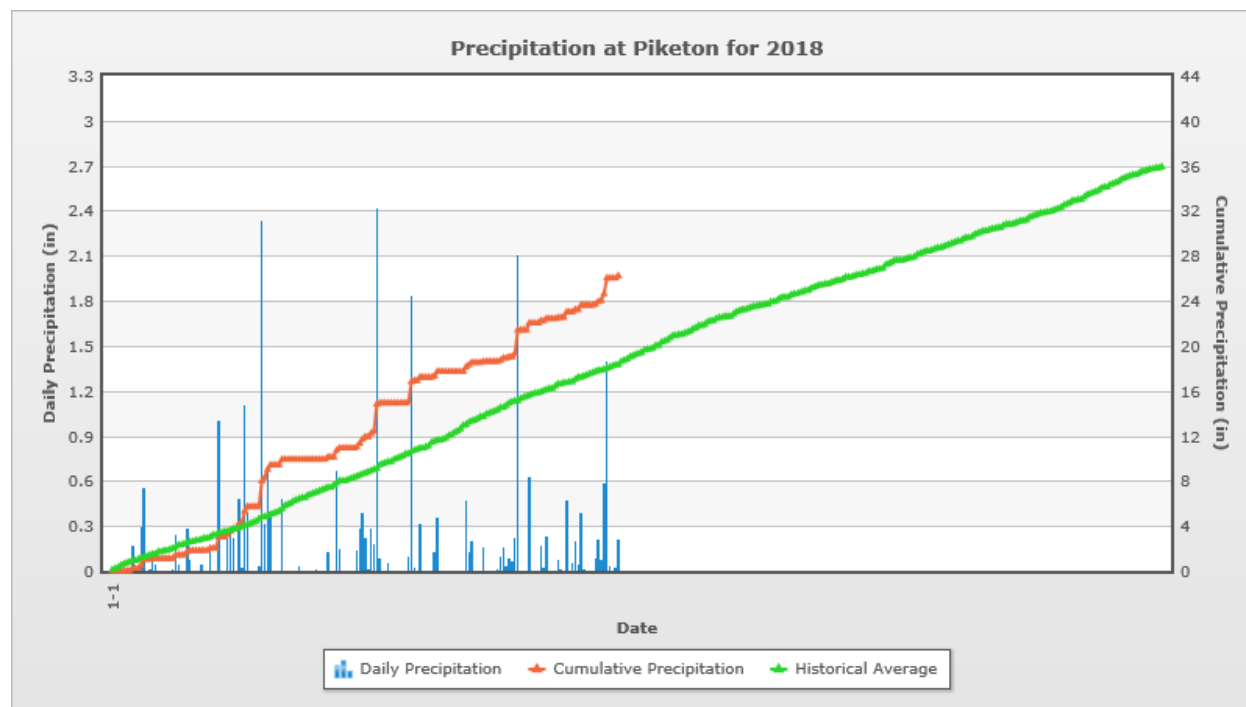
Excessive Rain Events Led to Nutrient Deficiencies in Some Vineyards in Ohio

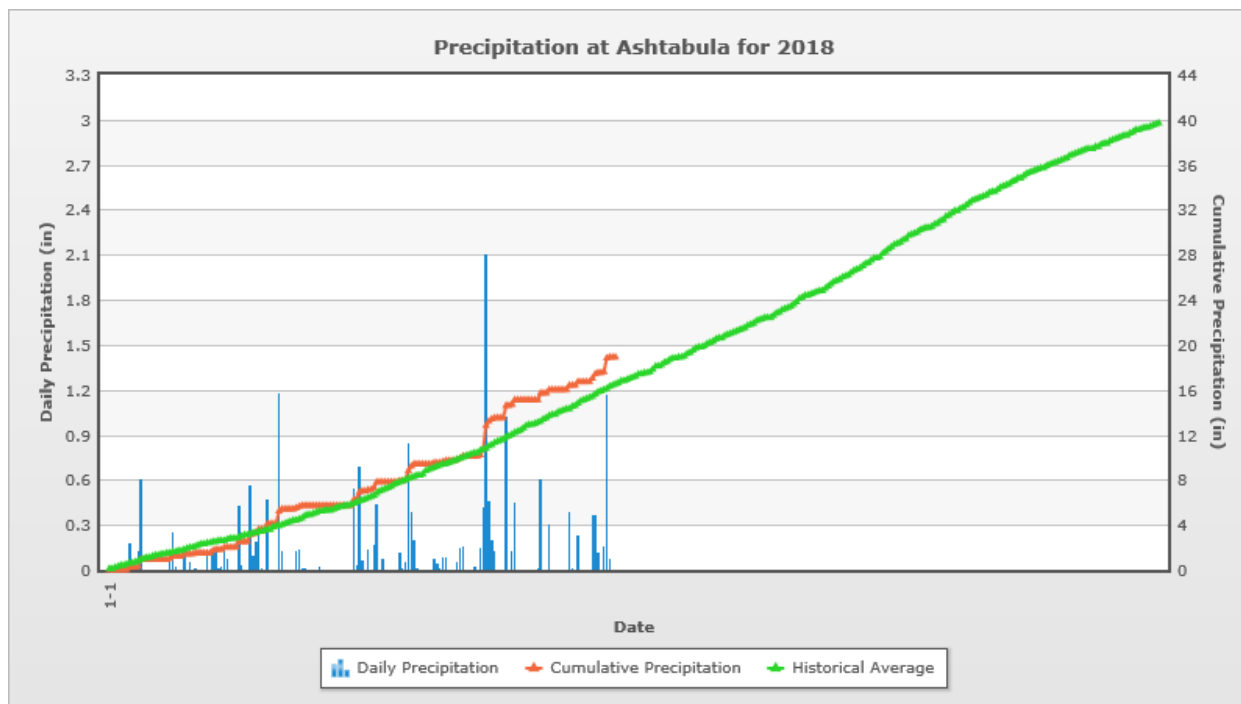
Gary Gao, Ph.D., Extension Specialist and Associate Professor

OSU South Centers

It seems that it has been raining every day in June, especially in Piketon Ohio! As I was the writing this article for OGEN, the sky looked gray and there was another chance of rain in Piketon and Columbus. I have a feeling that you must be experiencing the same thing.

If you take a quick look at the charts below, it is not hard to see that our daily precipitation (as of June 28, 2018) has been higher than average for 30-40 days in Ashtabula, for 3 months in Columbus, and about 4.5 months in Piketon. We were very “blessed” in the rain department in Piketon!





Excessive rain has caused weeds to thrive and excessive vegetative growth vineyards. All that rain water has also caused some of the nutrients to leach out of the soil profile and had led to mineral nutrient deficiencies in certain vineyards. This is assuming that you had enough mineral nutrients, such as magnesium and potassium, in the soil. If not, symptoms could have showed even sooner! If you noticed tissue yellowing between veins, especially on older leaves, you may have either potassium deficiency or magnesium deficiency.

I visited a vineyard in southern Ohio during the week of June 20, I noticed the marginal yellowing on the older leaves on some vines. These symptoms reminded me of potassium deficiency.



Tissue sampling may be a good way to check the nutrient status of these grapevines. However, the grapevine fertilizer recommendations are based on petiole sampling of recently matured leaves from July 15 to August 15. Instead of waiting for several weeks to get a sample collected, submitted, and processed, I asked the grower to make an application of a potash fertilizer, such as potassium sulfate, to see if the grapevines recover quickly, well in about a week. If they do, then the problem is potassium deficiency. Growers are also encouraged to read the Midwest Grape Production Guide for more information.

Second sample may not be as definitive based on the symptoms. There was severe yellowing between veins on the older leaves. I am suspecting magnesium deficiency. However, I was not 100% sure. Well, you know the drill now, don't you? Yes, I could make a soil application of magnesium sulfate first and water it in, if it does not rain. Wait for 7-10 days to see if the leaves turn green. If yes, then magnesium is it! If not, I would look for other causes.



Nitrogen may be another nutrient element that is low since it can be leached out of soil profile even more quickly than magnesium and potassium. Nitrogen deficiency is more than light yellowing all of the entire leaves including leaf veins and tissues between veins. Since the soil test does not typically test nitrogen, an application of nitrogen is recommended by soil testing labs based on the age of the vines and yield expectations. There is very little nitrogen left in the soil from year to year, if nitrogen is not applied. Grapevines can recycle some of their nitrogen within the vines. However, there will not be enough nitrogen left in the vines due to annual remove of the fruits. Growers are encouraged to consider nitrogen application(s), if the grapevines do not grow much each year. We all know that excessive vigor is bad for grapevines, but too little growth is not good for vines either. Moderate growth and yield should be what aim for each year for good grape production.

Things have been very hectic for me this year since I wear many hats. We have quite a few funded research and extension projects. These projects all take extensive data collection and some grower visits. I have one research assistant, one research associate, two Chinese visiting scholars, half of a post doc, and two college interns, and one more Ph.D. intern from Brazil coming in July. It is good to be busy and productive!

Since our fiscal year (FY18) for our OGIC funded project is scheduled to end on June 30, 2018, I would like to thank Christy Eckstein and the Ohio Grape Industries Program for its financial support of our wine grape research and extension project. I look forward to another great year!

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 June, 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 June. 21).

Upcoming Events:

July 19, 2018: [2018 Northeast Ohio Grape Field Day and Grape Twilight Tour](#)

Miscellaneous:

Updates to IPM tab:

- [2018 Developing a Grape Fungicide Program Guide](#)
- [2018 Midwest Fruit Pest Management Guide](#)

American Society for Enology and Viticulture, Eastern Section Annual Meeting

43rd Annual ASEV-Eastern Section Conference and Workshop

King of Prussia, PA, July 9-11, 2018

On Monday, July 9 there will be a **preconference tour** of Pennsylvania vineyards and wineries. The **conference** will begin with technical/research presentations on Tuesday and Wednesday, July 10-11 and include Tuesday's Oenolympics with Wines of the East Reception and Wednesday's Wine Reception and Grand Awards Banquet. The **Industry Workshop** on Wednesday, July 11 to feature invited speakers to discuss **"Taming High pH Wines in the East"**.

[Click here for a printable Registration Packet](#)

[Click here to register for the ASEV-ES Conference Online](#)

[Click here to pay](#)

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

THURSDAY, JULY 19, 1 P.M. – 4:30 P.M.

2018 NORTHEAST OHIO GRAPE FIELD DAY

TOPICS



IPM Update and NEWA Disease Forecasting System – Melanie Lewis Ivey, Plant Pathology.

Sustainable Management of Vineyard Insects – Elizabeth Long, Entomology.

IPM Approach to Weed Management – Doug Doohan, Horticulture and Crop Science.

Ashtabula Agricultural Research Station Sustainability Initiatives: Under Vine Cover Cropping Demonstration, Plant Health Monitoring Through NDVI Sensing, and NEWA Forecasting Demonstration Vineyard – Andrew Kirk, Ashtabula Agricultural Research Station.

Location: 2625 South Ridge Road E, Kingsville, OH 44048

Cost: Free and open to the Public

Contact information: Andrew Kirk, 440-224-0273, or kirk.197@osu.edu

oardc.osu.edu/facility/ashtabula-agricultural-research-station

Please note: Immediately following the field day event, the 2018 Twilight Grape Tour will take place at the Kent State University's Ashtabula campus. Please contact Danielle Weiser- Cline, dweiser1@kent.edu, for detailed information and reservations.



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

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Grape Twilight Tour

Dinner w/ regional Pinot tastings

Featuring Dr. Roland Rlesen
Professor of Viticulture and Enology at
École d'Ingénieurs de Changins

July 19th at 5:30 p.m.
Kent State University at Ashtabula
Main Hall Commons

Cost: \$20 | RSVP by July 16th

www.kent.edu/ashtabula/payhere

Advanced payment is preferred, however, if you wish to pay at the door, please indicate so on the RSVP form.

Save the Date!



2019 Ohio Grape & Wine Conference

February 18-19, 2019

Embassy Suites Columbus/Dublin

5100 Upper Metro Place

Dublin, OH 43017



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 Committee
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 <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 , 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