# Ohio Grape-Wine Electronic Newsletter

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www.oardc.ohio-state.edu/grapeweb/

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## Content:

# Spring Frost, Let's be Proactive, it's going to Happen?

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

This title may sound a little negative, but that is not in my nature. We are experiencing record warm temperatures in February. February is the one month that scares me the most when considering fruit crops and winter kill. This year February does not scare me about winter kill, but about Spring Frost now. The February of 2017 will go down in the record books as the warmest February on record. Remember in 2012 when March and April traded places. We had several $80^0$F temperatures in March and then April turned cool. I remember that most of the vineyards across the state had some frost damage, but that year turned out alright. Harvest time fruit had really high sugars and low acids. More reminiscent of what California fruit is like every year. Winemakers had to ameliorate the juice so we would not end up with such high alcohols and they added acid back so the wines had a little crispness.

**So why don't you think we might be heading for another Banner year like 2012?** Simple answer, the warmth is just too early. We have March, April and almost all of May to be out of the woods and I think the buds are already slowly pushing. Every Ground Hog day I like to cut some fruit sticks of Apple, Peach, Nectarine and Sweet Cherry and place them in water in the wine cellar and wait for them to flower. This has 2 good points. 1-It lets me know if there are flowers still alive and 2-It tells me how ready they are to start forcing. We did not expect any flower damage at this point and we did get a full bloom initiated in 11 days. It is the **11 days** that scares me now considering we have 3 months of weather to get past the last killing spring frost, hence the title "Let's be Proactive". What can we do or do we just let it happen.

**2 Types of Frosts:**

**Radiation Frost**, occurs on clear nights, the air is stratified with cold air at the ground level and warm air 30-50 feet up. Temperatures usually are above $27^0$F.

**Advective Frost**, the 2014 Vortex was an advective frost and can cause the most damage. These are large fast moving cold air masses that render even wind machines ineffective.

Frost Events -Temperature drops below 32 degrees F, amount of damage is dependent on how long temperatures are below that point. Damage starts when temperatures are at $31^0$F for more than half an hour. $28^0$F is my personal number that I know we are in trouble. Spring frost will cause a loss of crop on some varieties and others may come back and produce about a 50% crop.

There are several options and of course not all of them are viable for everyone or "One shoe does not fit all." The one truly Best Option against Spring Frost is **Site Location**. I had to put this in first or get criticism for not mentioning it. The truth of the matter is most

of us already have land and within those confines try to decide which site is the best. In a perfect world and you have the time and money we would all seek out the Best Site Location so we would not have to worry about such things as spring frost. Now that's off the table, what are our Best Options?

**The first 4 options below are the best options available to everyone who do not already have stationary or portable wind machines.**

**Option 1-** Pruning. Prune as late as you can. If you have large acreages rough prune, pruning canes or spurs twice as long, planning to come back through and cutting them in half. Grapes are apical dominant, which means they will break bud from the tip to the base. These tip buds are expendable and delay the breaking of the basal buds. This process can gain up to 1 week of frost protection

**Option 2**-The application of Soybean Oil + Latron B. Soybean Oil can be purchased at Sam's Club under the name of Bakers Chef in a 5 gallon plastic container and mixed in water as an 8% solution plus the addition of Latron B as a 1% solutions. Example: 8 gallons of Soybean Oil + 1 gallon of Latron B surfactant + 91 gallons of water. You can break this down to any amount that suits your needs. This needs to be applied now and maybe a couple more times every couple of weeks to delay bud break for a total of at least 3 applications. This will delay bud break for at least 10 to 14 days. Latron B can be ordered from Simplot.com or call Johnny at 559-897-5151. This is a California supplier so be aware of the 3 hour time difference when calling and it will probably take a little time to deliver so act quickly if you decide to use this.

**Option 3**- Amigo Oil use 10% v/v. Example: 4.5 gallons of Amiga oil + 45 gallons of water. Apply in February and continue to apply every 2 weeks until bud swell. Depending on variety studies have shown bud break delay from 5 days to 3 weeks. This is another chemical that may not have any local sources, so if you want to use this, start searching.

**Note: Too high a concentration can kill buds. We used 10% Soybean Oil in an experiment to try to thin peaches and we did but not very uniformly. We still had to hand thin.**

**Option 4**-The application of KDL. Potassium Dextro-Lac or simply KDL, can be applied a couple of days to as little as 12 hours ahead of a frost event. Agro-K recommends using one gallon/acre about 24 hours before the expected frost event. This acts like an anti-freeze and can lower the freezing point a few more degrees to around 25-26$^0$F. There is another recommendation from AGRO-K that says They recommend 1 gallon of KDL and 1 qt. of System Cal per acre in combination. KDL costs approximately $21 gal. in 2.5 gal. containers and System-Cal costs approximately $35/gal in 2.5 gal. containers. Agro-K suggest that this treatment can give another 2-5°F degrees of frost protection.

Note from AGRO·K KDL is designed to enhance plant tolerance to frost, but is not designed to protect against severe or extended frost or freeze events. In any crop if temperatures are going to fall more than 5 to 7 degrees below freezing in the spring, growers with smaller operations will need to resort to sprayers or fans to drain away or recirculate cold air upward allowing warm air to drop into the vineyard or orchard if water protection is not an option. In the fall growers should keep in mind that ground temperatures will be warmer, meaning the air down low also can be warmer and protective, making fans counterproductive.

Large orchards and vineyards can activate the sprinkler systems or roll out the big fans to head off freeze damage. With this potassium nutrient any size growers can have a tool that can be deployed quickly, inexpensively and effectively if their crops are in for a cold bite as temperatures dip a few degrees below freezing for a short period. Another note is that this chemical can be used in the Fall to prevent the leaves from being killed too in case you need to hand the grapes a little longer.

*OGEN Editor Note: KDL is mainly sold by the Meherrin Ag and Chem Co. The nearest one being in Virginia. I have contacted them for current prices and will put out a Special OGEN this week giving you that information. It was my thought if we collectively purchased KDL in bulk and had it delivered to a central location we could probably save on price/gallon and freight charges. If you would be interested in purchasing KDL to use this spring please send me an email of interest. This is just another part of being proactive. The nutrient formulation is 0-0-24 and KDL comes in either 250 gallon totes for the bigger vineyards or you can purchase it in 2.5 gallon jugs.*

**Option 5**-Wind machines, both stationary and portable three point hitch machines and Helicoptors. If you have wind machines then you know of their effectiveness for use in the winter sometimes and spring frost control. There are times like the Vortex of 2014 though where the strong winds that accompanied the severe drop in cold rendered the wind machines useless. Three point hitch wind machines

**Option 6**-Irrigation. **I know, in Ohio, it is an option in vineyards in Ohio, but nobody has them**. It is for strawberry growers and some orchards. It is very effective in that as long as the water is being applied and ice crystals are being formed heat is released and the encased buds do not get below 32$^{o}$F. Water has to be continually applied until the sun comes up and begins to melt the ice. Short of this, you may more damage to the buds. We irrigated peaches in the early 1980's to protect them from frost damage. We had to turn the sprinklers on early in the evening and into the late morning hours. We had applied so much water that the trees became heavily laden with so much ice that it looked like a tornado had gone through the orchard.

**Option 7**-Copper Sprays to kill ice nucleating bacteria. Cupric hydroxide: 2.1 kg/ha @ Spray volume: 300 l/ ha this is approximately 1.9lbs/A in 73 gallons of water.

Super cooling is limited by the presence of certain bacteria. To date, two have been identified as having active ice nucleation capacity. These include the stone fruit bacterial canker organism Pseudomonas syringae and the relative of fireblight, Erwinia herbicola. Activity occurs when populations of the organism exceed 10,000 bacteria per $cm^2$ of tissue surface. If one has a location where the bacteria do not achieve this population during the spring phenological stages that are susceptible, or do not achieve such populations until the last frost hazard has passed, then they are of minimal concern. Where populations are high, copper sprays, to kill the bacteria may provide some protection. The important question is whether such knowledge is available in the specific viticultural region.

**Option 8**-Vineyard Floor Management.

| Vineyard Floor Management | Temperature Change |
|---|---|
| Bare, Firm, Moist Ground | Warmest |
| Shredded Cover, Moist | 0.5 ºF cooler |
| Low Cover, Moist Ground | 1 to 3 ºF cooler |
| Dry, Firm Ground | 2 ºF cooler |
| Freshly disked, fluffy | 2 to 3 ºF cooler |
| High cover crop | 2 to 4 ºF cooler |
| High cover crop, restricted air drainage | 6 to 8 ºF cooler |

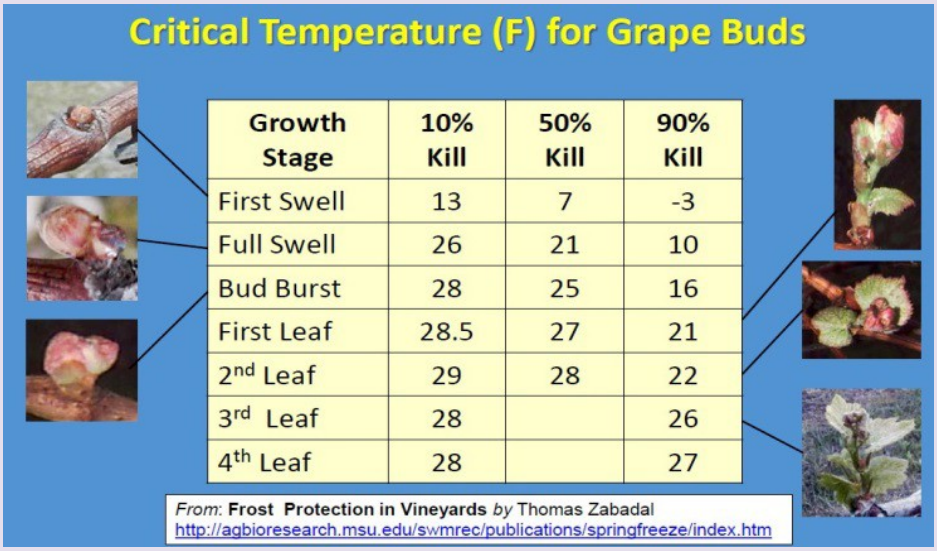
Source: Glenn McGourty 2016 OGWC

Soil Water Management To Reduce Frost Risk
•Maximum protection: Bare, packed soil - either cultivated or sprayed with herbicides
•Drawbacks: Erosion risk, loss of soil organic matter, destruction of soil structure, poor footing for early spring spraying
Keep soil water content near field capacity
Wet 2-3 days early
Wet entire surface
Wet the top foot

**MOIST SOIL**
•Water Filled Spaces
•High Heat Capacity
•High Conductivity
•Higher Minimum

**DRY SOIL**
•Many Air Spaces
•Low Heat Capacity
•Low Conductivity
•Colder Minimum

All of this is FOOD for THOUGHT. We cannot wait until the midnight hour and then try to do something about the weather. This is just another one of those years that we have to be proactive and have a plan of action. Below you will see the chart with the critical temperatures for grape buds at different phenological stages. I wish all of us the BEST this coming season. Just like the boy scout Motto says "Be Prepared".




| Growth Stage | 10% Kill | 50% Kill | 90% Kill |
|---|---|---|---|
| First Swell | 13 | 7 | -3 |
| Full Swell | 26 | 21 | 10 |
| Bud Burst | 28 | 25 | 16 |
| First Leaf | 28.5 | 27 | 21 |
| 2nd Leaf | 29 | 28 | 22 |
| 3rd Leaf | 28 | | 26 |
| 4th Leaf | 28 | | 27 |

**Option 9-Row Covers or Frost Blanket-** Row cover gently protects young plantings from frost, insects and wind. Row Cover; floating row cover is a fabric that can be used to protect young plants from frost, insects, wind, and harsh rains yet is permeable enough to allow a portion of the water to pass through the fabric. Available in 2 weights for row crops, garden beds, shrubs, individual fruit trees or deck containers.

These are used in strawberry production but maybe they can be used as an option for grapes. I can imagine that the short canes and spurs may poke holes in the row cover and destroy it. Strawberries do not have any sharp edges so this may not be a viable option unless you can hang it on wires just above the sharp canes. It is also going to be more vulnerable to high winds so it must be anchored down. In strawberry protection it is laid down going into winter and weighted down with bags of rocks. I have also seen this in the Rotating Arm Trellis in blackberries, where the trellis is laid down and the blackberry canes are covered with this row cover before winter. The row cover may have to be removed and put back on several times in some years in the spring due to spring frost.

Rotating Arm Trellis covering blackberries for winter and spring frost protection, photo by Dr. Gary Gao

For Critical stages of Apples, Peaches, Pears, Sweet Cherries and Apricots 10% kill and 90% kill temperatures click on link below

Stage of Development10% kill (°F) 90% kill (°F)Adapted from 1989 Spray Guide for Tree Fruits in Eastern Washington. Bulletin EBO419. E. H. Beers, coordinator.

a. For Red Delicious. Golden Delicious and Winesap are approximately 1 degree hardier. Rome Beauty is 2 degrees hardier, except after petal fall when all cultivars are equally tender.
b. For Bartlett. D'Anjou is similar but may bloom earlier and therefore may be more tender than Bartlett at the same date.

http://extension.psu.edu/plants/tree-fruit/commercial-tree-fruit-production/frost-protection-for-tree-fruit/critical-temperatures-for-various-fruits

**Sanitation Practices to Prevent and Manage Diseases in the Vineyard**
**By Melanie L. Lewis Ivey, State Fruit Pathologist**

Dormant season pruning is a critical component of the grape production system, providing the mechanism to maintain the training system and select the fruiting wood. During the season canopy management practices, such as shoot thinning and positioning and leaf and lateral removal, open up the interior of the canopy to light and air to help promote fruit ripening, reduce disease pressure and increase spray coverage. Pruning wounds are very susceptible to infection and some pathogens can be carried on the tools used to conduct pruning and canopy management practices. Pruning debris is also a source of inoculum and should be handled in a manner that prevents pathogen build-up in the vineyard.

***Viruses*-** There are about 60 different documented viruses that infect grapes worldwide. Management practices should be tailored to distinct epidemiological characteristics of each virus. Viruses are easily moved locally or regionally through the distribution of infected vegetative cuttings. Insects and soil-inhabiting nematodes are two important vectors of grape viruses. ***According to virologist Dr. Marc Fuchs at Cornell University, "there is no evidence to support that grape viruses are transmitted mechanically in any vineyard".*** Fuchs goes on to say that "practices such as pruning, suckering, hedging, trimming, weeding, and harvesting do not spread viruses from infected vines to healthy vines or from infected vineyards to healthy vineyards". Therefore, the application of sanitizers are not necessary for the prevention of grape virus infections.

Figure 1. Grapevine leaf roll disease caused by grapevine leaf roll associated viruses (GLRaV). The GLRaV are vectored by mealybugs. *Photo courtesy of E. Hellman, Texas AgriLife Extension*.

***Fungal trunk diseases***- Several fungal diseases can cause grape trunk decline and death including Esca, Eutypa and Botryosphaeria dieback. The fungi that cause these diseases can overwinter in crevices on infected wood and spores are released in the spring and infect primarily through pruning wounds. Cultural practices that reduce the build-up and dissemination of the pathogen in the vineyard are recommended. The prompt removal and burning of branches, dead or dying vines, pruning residues, and pruning dead arms is strongly encouraged. The direct application of registered chemical protectants to pruning wounds can help to prevent new infections.

Figure 2. Eutypa dieback caused by *Eutypa lata*. *Photo courtesy of J. Urbez-Torres, Oregon State University*.

***Fungal berry diseases-*** Downy mildew, powdery mildew, grey mold, black rot and anthracnose are caused by fungi that attack the berries (as well as other parts of the vine), reducing yield and quality. Pruning debris is a reservoir for inoculum and should be removed and burned. Black rot mummies (dried-up infected berries) that are attached to the vine should be cut out and removed from the vineyard. If pruners are used to cut out diseased clusters the pruners should be cleaned and sanitized before being used for other tasks.

Figure 3. Black rot mummies on a cluster of berries. Mummies are a source of inoculum throughout the season and the following spring.

***Crown gall disease-*** Crown gall is a systemic disease caused by the bacterium *Agrobacterium vitis*. The bacterium infects the vine at points of mechanical and freeze injury. The removal and burning of all debris after pruning is recommended. When removing diseased vines, remove as much of the rootstock as possible as bacteria can survive for 2 or more years on root fragments. Pop-up galls should be removed from vines. To remove a gall cut about 2-3 inches out from the gall. Bacteria can ooze from established galls, therefore pruners should be sanitized after each cut. A 10% bleach or Lysol solution can be used to disinfest pruners.


Figure 3. Pop-up crown gall on grape vine. *Photo courtesy of W.M. Brown Jr., Bugwood.org)*

**Ohio Grape Disease Resources**

Several on-line resources are available through The Ohio State University for information on diseases of grapes including:

Buckeye Appellation website: www.ohiograpeweb.cfaes.ohio-state.edu
OSU Fruit Pathology website: www.oardc.ohio-state.edu/fruitpathology
Ohio Grape IPM Facebook: www.facebook.com/ohiograpeIPM
Midwest Fruit Pest Management Guide: www.ag.purdue.edu/hla/Hort/Documents/ID-465.pdf
Ohioline Factsheets: www.ohioline.osu.edu

Dr. Melanie Lewis Ivey can be reached via email (ivey.14@osu.edu), phone (330-263-3849) or text (330-465-0309).

# Spring Weed Control in Vineyard

by Chengsong Hu and Doug Doohan

With the increasing temperature and other spring-maintenance activities, it is easy to neglect spring-germinating weeds, especially in the hilled vineyard. If left uncontrolled, annual weeds will become well established under the trellis this spring and compete with vines that are breaking dormancy. In addition, it is always easier to maintain weed-free condition than to clean a heavily weeded site. Chemical control is the most common means of weed control in vineyards. Most pre-emergence herbicides will control germinating weeds for several weeks, but have little or no effect on germinated weeds. Post-emergence herbicide should be combined with pre-emergence herbicide to provide effective kill of emerged seedlings.

## Herbicides registered for use on grape

| Commercial product | Weed controlled | Remarks |
|---|---|---|
| **Planting year** | | |
| **Aim** | Broadleaf | **Postemergence.** Do not allow Aim to contact green stem tissues and foliage |
| **Chateau** | Broadleaf & grass | **Preemergence & postemergence**. Preemergence applications should be made to a weed-free soil surface. Add adjuvant when applied as postemergence herbicide. Grape vines must be protected from spray contact. |
| **Fusilade** | Grass | **Postemergence**. |
| **Gramoxone** | Broadleaf & grass | **Postemergence.** Avoid contact with desirable foliage |
| **Poast** | Grass | **Postemergence**. |
| **Prowl** | Broadleaf & grass | **Preemergence.** Do not allow spray to contact buds or leaves |
| **Rely** | Broadleaf & grass | **Postemergence**. Avoid contact with green bark, stems or foliage |
| **Roundup** | Broadleaf & grass | **Postemergence**. Avoid spray drift |
| **Select** | Grass | **Postemergence**. |
| **Surflan** | Broadleaf & grass | **Preemergence**. |
| **Snapshot** | Broadleaf & grass | **Preemergence**. Non-bearing vineyard only |
| **Treflan** | Broadleaf & grass | **Preemergence**. |
| **Venue** | Broadleaf | **Postemergence**. Mix with another foliar active broadleaf herbicide to provide complete weed control. Avoid contact with green, uncallused bark |
| **Year 2** | | |
| **Casoron** | Broadleaf & grass | **Preemergence & early postmergence**. |
| **Matrix** | Broadleaf & grass | **Preemergence & postemergence**. |
| **Year 3** | | |
| **Karmex** | Broadleaf & grass | **Preemergence and postemergence.** Avoid contact to foliage and green bark |
| **Princep** | Broadleaf & grass | **Preemergence.** |
| **Zeus Prime XC** | Broadleaf & grass | **Preemergence and postemergence.** Provide good sedge control. Avoid contact to foliage and green bark |
| **Year 4** | | |
| **Zeus XC** | Broadleaf & grass | **Preemergence.** Can be applied postemergence to control sedges. Avoid contact to foliage and green bark |
| **Alion** | Broadleaf & grass | **Preemergence.** |

Note: Herbicide that can be used in previous years can be used for following years, unless specially noted

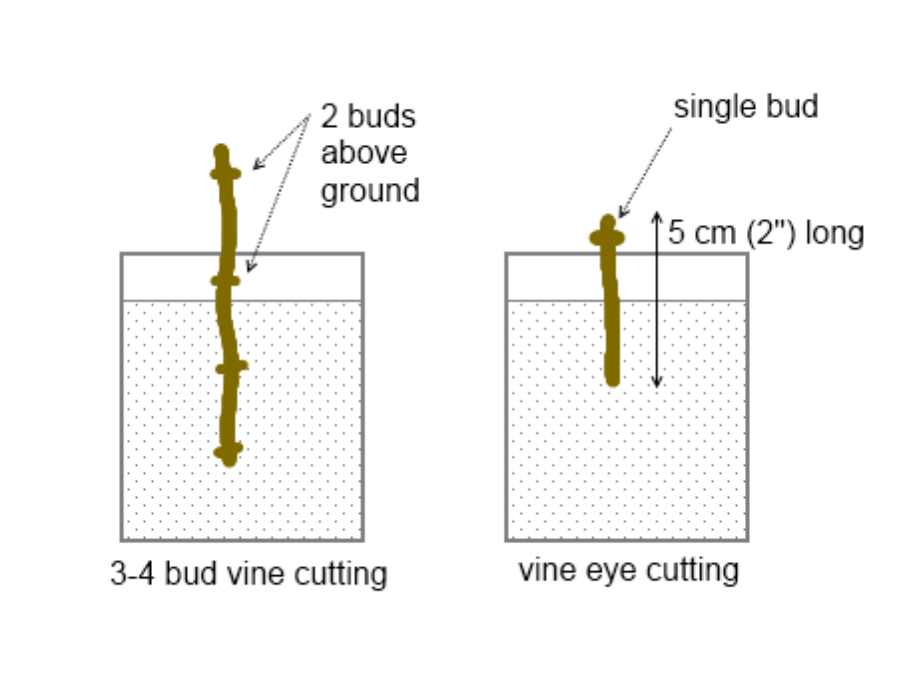
# Now is the time to start your Propagation Cuttings

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

The time is right to start your propagation work. Ideally, if we were going to graft buds onto rootstock we should have prepared out propagation or scion wood before Thanksgiving. If you are just making cuttings you can take the wood directly from the field, but stick twice as many cuttings as you want to account for bud damage that may have occurred during the winter. If taking directly from the field disregard this next couple of steps. This would involve collecting the scion wood, soaking it in a fungicide such as Chinosol, which can be obtained from Presque Isle at (http://www.piwine.com/chinosol.html) Chinosol is very effective in killing any fungus that may be on the wood. The scion wood should wrapped in wetted newspaper or paper towels, placed in plastic and stored in a cooler between 35 & $40^0$F. Be sure NOT to store the cuttings with ripening fruit. Ripening fruit gives off ethylene and this can **KILL** your buds. Be sure to check the wood periodically to make sure the paper towels remain damp. Bring the wood out of the cooler in mid-February and begin the propagation process.

**Sticking cuttings**

The most ideal situation is if you have a growth chamber (not) or a mist bed with either sand or potting soil in the enclosure. See Midwest Grape Production Guide pages 28-32 or click on link http://www.oardc.ohio-state.edu/fruitpathology/Bulletins/mw_grape_12aug05%20S.pdf




For the greenhouse environment 3 bud cuttings are sufficient. If you have heating cables place these in before sticking your cuttings. Some varieties do not root as well as others and bottom

heat or heating cables with help promote root growth. You can also apply a rooting hormone to the base of each cutting before sticking to promote root growth. We have used a powdered rooting hormone called Hormodin 2. See link http://www.ohp.com/Labels_MSDS/PDF/hormodin2_label.pdf Place 2 buds below the soil surface and 1 bud above the soil. If you are sticking these cuttings directly into the mist bed, place them as close as you can to save space. Rows only need to be a couple of inches apart. If you can adjust the interval of misting, set the timer to mist every 7 to eight minutes for no more than 6 seconds for an eight hour day. Ideal room temperature would be $75^0$F days and $65^0$F nights. You can dig these plants and pot them up when the shoots are 5 inches long and roots have developed.

**Bench Grafting**

Use the same procedure for collecting wood before Thanksgiving, dipping in chinosol and storing at 35 & $40^0$F.

It really speeds up the grafting process if you own, can purchase or borrow an Omega Grafting Machine. Hopefully the video link below will demonstrate the machine in action. http://www.bing.com/videos/search?q=omega+grafting+machine+for+sale&view=detail&mid=57622DFA2B07D1E6F09E57622DFA2B07D1E6F09E&FORM=VIRE

The omega bench grafting machine does all the hard work. There are 1 step and 2 step machines. Both machines require that you try to match up the diameters of the scion and rootstock as close as you can prior to inserting into the machine. In the 1 step process the machine cuts through both pieces of wood (scion & rootstock) and cuts an omega design (one female, one male) and joins to two ends together. It really helps if you cut and pre-sort both the scion and rootstock portions and keep them wet before beginning the grafting process. After the two pieces of wood are joined dip them into grafting wax. This serves to stabilize the two pieces of wood and prevent the graft union from drying out. Place these newly joined vines in a callusing box. We have used bio-degradable cartons with potting soil and stacked in a grape lug.
These are then placed in a growth chamber set at $85^0$F and 80% relative humidity to promote the callusing process. When the callusing process begins begin back down both the temperature and humidity little by little. Light is not necessary in the beginning of the callusing process. When the bud on the scion begins to break set the lights to come on at 5am and off at 5pm. You need to keep the soil mixture moist and you will want to apply a soil drench of something like Quadris Top in the beginning and also a fungicide to the foliage when it comes out. These temperatures and humidity are ideal for fungus to form and this will Kill your vines, quickly. Prevention Prevention, Prevention. We have an ideal set up now, but we did not in the past, so you will just have to improvise to get as close to these conditions as you can. Another hint is: It is a lot easier if you start with rooted rootstock instead of hoping the graft with callus, grow roots and shoots.

It’s easier than it sounds and if you have any questions, just call.

# 2017 Ohio Grape and Wine Conference Summary

*by Dave Scurlock, OSU/OARDC Viticulture Outreach Specialist Photos by Diane Kinney*

Another great grape and wine conference has come and gone. There is a tremendous amount of preparation for the annual conference and too many people to thank for all their efforts. The planning committee, the featured speakers Dr. Debra Inglis, Brock University, Dr. Tim Martinson, Cornell University and Peter Bell, Winemaker at Fox Run Vineyard.

The Monday morning workshop vendor presenters Kathy Widing, Misco Refractometer, Rick Dunst, Double A Vineyards, Benjamin Merideth, Brick Packaging (Saxco Holding Co), Michael Schreiber, Fred's Water Service, Katie Cook, Scott Labs, Carl Cocita, Collinwood Grape and Grape Juice Co, Ercel Mullins, Winemecca LLP/VGR Eastern and Bill Reiss, BDi Machinery Sales, Inc. We are also very appreciative for all the time and effort of our very own The Ohio State University presenters, Dr. Elizabeth Long, Dr. Erdal Ozkan, Dr. Feng Qu, Dr. Mimi Rose, Dr. Josh Blakeslee, Dr. Doug Doohan, Dr. Melanie Ivey, Dr. Imed Dami and Andrew Kirk. We also had a special presentation titled "Wineries and the Agricultural Exemption from County/Township Zoning: Application and Limitations" by Amy Milam, Director of Legal Education, Ohio Farm Bureau Federation. Thank you all for all your time, preparation and presentations!

We would like to thank all of our sponsors of various sessions too!

VGR Eastern for their sponsorship of both the Banquet and Enology Sessions

Paul Hall & Associates for their Banquet Sponsorship

Kent State University and VGR Eastern for their Enology Session Sponsorship

Gowan for their Sponsorship of the Viticulture Sessions

Conference Sponsors Ohio Grape Industries Committee and The Ohio State University

These sponsorships are not taken lightly and are very important part of keeping costs down so the Grape and Wine Conference is affordable to everyone.  Again Thank you to our sponsors.

Surveys are always taken at the conference and these are very important to fill out by the attendees so we can adjust to the needs of the grape and wine industry.  These surveys will be gone over at the next OGIC meeting and suggestions and recommendations from these surveys will be incorporated into next year's meeting.  At least 21 attendees took advantage of receiving pesticide recertification credits as an added bonus of attending the Grape and Wine Conference.

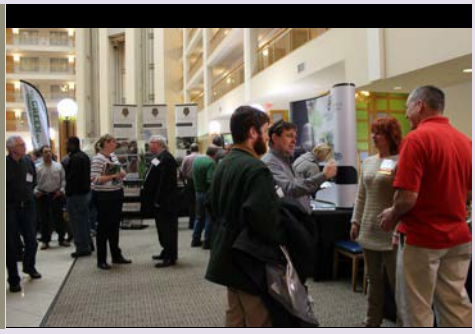
Featured Out of State Speakers-Dr. Tim Martinson, Dr. Debra Inglis & Peter Bell

The Ohio State University Presenters


2017 OGWC Collage











The Grape and Wine Hall of Fame was the highlight of the evening during the Banquet. Kenny Joe Schuchter, owner of Valley Vineyards. Kenny Joe has been involved in the family winery over 40 years. Kenny Joe worked side by side with his father Ken Schuchter, Sr. on the farm and in the vineyard for nearly 50 years. Kenny Joe has served on several boards including OWPA as a member and President and OGIC as a board member. Kenny Joe's father had been previously inducted into the Grape and Wine Hall of Fame.


Mark Fisher, an industry friend and a journalist for the Dayton Daily News was also inducted into the Grape and Wine Hall of Fame. Mark has worked as a wine judge on the Ohio Wine Competition Panel, established one of the first Wine Blogs in the Country and written numerous national and regional wine articles. These articles have played a major role in telling the story Ohio Wines to consumers across Ohio and the country. Mark has been a true friend and promoter of the Ohio Wine Industries for decades through his writings and willingness to help.

Congratulations to both Kenny Joe Schuchter and Mark Fisher for all you have done and continue to do to promote the Ohio Grape and Wine Industry!

We would also like to thank the Ohio Grape and Wine Industry and there board members (all appointed volunteers) who give of their time to support and guide the Grape and Wine Industry.

We want to thank all of the people who attended. Without your attendance and determination to improve your knowledge base to help Ohio Grape s and Wine to be the best they can be none of this would be possible. Together we learn, grow and improve.

This just came across my desk today from Dave Marrison, and I thought I would forward it on through the OGEN mailing list. It could potentially affect a lot of growers.
Dave Scurlock

Folks

This article has been posted to the OAM web site but you may wish to publicize the 1099 changes to your farmers through your news columns and newsletters

David Marrison

# New Deadline for Reporting Non-Employee Compensation on Form 1099

January 11 2017
Share

By: David Marrison, Associate Professor & Extension Educator

There is a new change from the Internal Review Service which farmers need to be aware of in regards to the Form 1099. New this year is a provision that if the Form 1099s is being issued to report "Non-Employee Compensation" it is due both to the recipient and to the IRS by January 31, 2017. The recipient due date has always been January 31, but taxpayers usually had until February 28 or in the case of e-filed returns March 31 to file with the IRS. However, this is no longer true for those receiving a 1099 for non-employee compensation. They are due to both by January 31 with no extensions.

A Form 1099 for "non-employee compensation" is generally required if the total payments for services exceeds $600 during the calendar year. Examples of this could be for hiring a neighboring farmer to harvest, spray, or plant your crops. It could also include hiring a professional such as an accountant or veterinarian. Reporting is needed for payments made to unincorporated businesses (ie. sole proprietorship or LLC) in excess of $600. Generally payments to a corporation do not require a 1099 to be issued or payments made to LLC which have elected to be taxed as a corporation. One exception that should be noted is

that payments over $600 to an attorney, regardless of business entity (corporation or unincorporated), need to have a Form 1099-MISC issued.

Form 1099s are also used for report rent paid to landlords, royalty payments from gas wells, and for reporting crop insurance proceeds. For 1099s issued for these other reasons, they still must be to the recipient by January 31 but remain under the old filing deadline to the IRS of February 28 or in the case of e-filed returns March 31. However, it is recommended that you file all of your Form 1099s at the same time. This way you don't forget to file the other forms by the later due date!

It is highly recommended that farmers obtain a Form W-9 from each business they purchase products and services from. This form provides the necessary information that allows you to process the Form 1099. Don't guess on if the entity is a corporation or not. The W-9 will indicate the type of entity. You do not need to get a new Form W-9 each year, but it is a good idea to get them updated annually if you can.

It should be noted that payments paid for products do not require a Form 1099 to be filed. Therefore, when farmers buy fertilizer or feed, they are not required to issue a Form 1099. However, if services are provided along with a product (ie. you hire for the spraying and the entity provides the spray chemicals) then a Form 1099 is required and the form should include the total payment made.

More information about 1099 reporting can be obtained at the Internal Revenue Systems website at: https://www.irs.gov/uac/about-form-1099misc. And just a friendly reminder, if you miss the deadline or do not issue Form 1099s that are required, the penalty for EACH form 1099 not timely filed is $250 for not sending to the recipient and $250 for not filing with the IRS.

Click here to access the form 1099: https://www.irs.gov/pub/irs-pdf/f1099msc.pdf.

***OGEN Editor Note: Rick Dunst told the Ohio Group at the 2017 OGWC about this special event and that it fills up fast, so if you have an interest, ACT NOW! Besides the good people at Double A, this will be the last time to hear World Renown Specialists like Dr. Andrew Landers and Dr. Wayne Wilcox due to retirement. They are the best at what they do and they are good at it too.***

# Special Summer Grape Conference and Field Day

Double A Vineyards, Inc. is pleased to announce that we will be holding a **Summer Grape Conference and Field Day** on July 25, 2017 at the Clarion Hotel, Marina & Conference Center on the Lake Erie shoreline in Dunkirk, NY. The morning session will include presentations on grape disease management, pesticide application technology, the development and importance of clean vines, and grapevine breeding, culminating in a wine tasting of new and promising cultivars. Following lunch, we will travel by bus for the afternoon session to tour Double A Vineyards' new nursery blocks planted from "clean" virus certified plant material developed by the National Clean Plant Network. Our morning speakers and Double A owners and staff will lead discussions and answer your questions on many aspects of managing the nursery. The cost to attend is $75.00 which includes lunch and the wine tasting. A room block is also available for those who would like to stay the night prior to or following the conference.

**There is limited spacing so don't wait to reserve your spot! Register now at www.doubleavineyards.com or by calling the office at 716-672-8493. We look forward to having you!**

**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**

**Items of Interest-Content includes:** Just for the Fun of It, Grapes, Insects, Disease, Wine, Weeds, Health, Mobile Aps, Science and Orchard pruning

## Just for the Fun of It

**What kind of cherry did Washington fell?** The Eastern United States was full of wild, native cherry trees at the time-February 14 2017-Source: Morning Ag Clips
https://www.morningagclips.com/what-kind-of-cherry-did-washington-fell/?utm_content=articles&utm_campaign=NLCampaign&utm_source=Newsletter&utm_term=newsletteredition&utm_medium=email#sthash.8AnOBPBB.dpuf

**Contemplating robots and retail with Alexa**-February 14 2017-Source: The Packer
http://www.thepacker.com/news/opinion/contemplating-robots-and-retail-alexa?mkt_tok=eyJpIjoiWVRKa016YzNOR1UxTlRJNCIsInQiOiJ3cThIOWp2QW94WER2NXQyeHZmTXFSZzdpTHl2XC9GcjRuOEZ5Y3pzeFJ4ZFwvOU16Y1RjYlNUWTdYVVp3MjdCSlVOSEo3eHJwY2dOUXNxXC9qN3VRc3BzSXBWclJHa253T3Q1a3d4M1dpWmx3YitLMXJNOG0xZ1ZnNWU3S0ROZEZjbSJ9

**Will Warm Weather Cut Maple Syrup Production Short?-**February 24 2017-Source: Ag Web
http://www.agweb.com/article/will-warm-weather-cut-maple-syrup-production-short-apnews/?mkt_tok=eyJpIjoiTkdaaVltUmxZMkUwTTJZMCIsInQiOiJaT3lGNmZRb1ZNS2Q5eWJRc2VrQlRTZTdIXC84ZzdLVzF2TjRRUlZia1M1MENUdDhlWjU5a1Z2dmNYUWpBa0Rsc2Vvem0wdDBVUnJBM0JcL1lpUUhTSXJUYVBJMXBQN213M2tDS3N0U0JXbTVXMm5UY2pINzNzZmhucFB3dVFjNUZFIn0%3D

## Grapes

***OGEN Editor Note:*** **Dr. Terry Bates,** Cornell Lake Erie Research and Extension Laboratory, Director **Lake Erie Research Center is involved in the project below and If you recall was one of our Featured Speakers at the 2012 Ohio Grape and Wine Conference giving a tal on Spatial Crop Management: Using Sensor Technologies to Measure Grapevine Canopies and Crop Components** ****Please read the most current research below***

**New tech for grape growers**-Local grower aids in development of technology for concord industry-February 4 2017-Source: Morning Ag Clips
https://www.morningagclips.com/new-tech-for-grape-growers/#sthash.obFdkaWO.dpuf

**Washington Organization Rebrands Itself**-February 17 2017-Source: Growing Produce
http://www.growingproduce.com/fruits/grapes/washington-organization-rebrands-itself/?utm_source=knowledgemarketing&utm_medium=newsletter&utm_campaign=afgenews+02222017&omhide=true&eid=225307565&bid=1671497

**Heading Toward the 'No-Touch' Vineyard Growers discuss the current trends in mechanization and its future**-February 7 2017-Source: Wines & Vines
https://www.winesandvines.com/template.cfm?section=news&content=180237

**High tunnels extend vineyard growing season** Mari Vineyards gets up to 25 more growing degree-days for grapes grown under tunnel structures-February 15 2017-Source: Good Fruit Grower http://www.goodfruit.com/high-tunnels-extend-vineyard-growing-season/

## Insects

**Trap Zaps Insects And Captures Data-**February 3 2017-Source: Ag Pro
http://www.agprofessional.com/magazine/trap-zaps-insects-and-captures-data?ss=resource_centers,precision_ag&mkt_tok=eyJpIjoiTTJSa09HWm1NVEJpWXpRMCIsInQiOiIxc29iWFhsTkdQRWxuMmsxaG4rYXI2SjBDVlwvRXpWZjJYUXFiejhXOW1sSkdZUFBOM3NOaFJvWWtpaGZVd0trektTQ2NKeXM1Ym5DR0tYTG9uaWwwMUdlc2UzMlJrVFhcL0tmeU9rdDhkbDZVZ3dKcUhjTUVRcTI4dkRYQ1hCSVEyIn0%3D

**Beehive Thefts on the Rise-**February 11 2017-Source: Growing Produce
http://www.growingproduce.com/production/beehive-thefts-on-the-rise/?utm_source=knowledgemarketing&utm_medium=newsletter&utm_campaign=afgenews+02152017&omhide=true&eid=225307565&bid=1664442

*OGEN Editor Note: In 2016 there were hundreds of newly planted apple trees that were stolen in Ohio. Be vigilant to keep an eye on new vineyard plantings. Trail cameras are inexpensive and could help document these unusual thefts.*

## Disease

Study shows how plants fight off disease Pre-harvest plant diseases account for up to 15% of crop losses per year-January 31 2017-Source: Morning Ag Clips
https://www.morningagclips.com/study-shows-how-plants-fight-off-disease/?utm_content=articles&utm_campaign=NLCampaign&utm_source=Newsletter&utm_term=newsletteredition&utm_medium=email#sthash.ruShoNO3.dpuf

**Managing Powdery Mildew and Botrytis Bunch Rot in Wine Grapes**-February 8 2017-Source: Crop Science
https://www.cropscience.bayer.us/learning-center/articles/managing-powdery-mildew-and-botrytis-bunch-rot-in-wine grapes?utm_source=knowledgemarketing&utm_medium=newsletter&utm_campaign=afgenews+02082017&omhide=true

## Wine

**"Microbial Terroir - Current Research Round-Up"**-December 2016-Source**:** *Soil Biology and Biochemistry*, 103 (December 2016)

http://www.jancisrobinson.com/articles/microbial-terroir-current-research-roundup

**Does less choice lead to higher wine sales?**-February 15 2017-Source: Meininger's Wine Business International https://www.meininger.de/en/wine-business-international/does-less-choice-lead-higher-wine-sales

**Weeds**

The Robot That Plundered Pigweed-January 30 2017-Source: Precision Ag
http://www.precisionag.com/hort-tech/the-robot-that-plundered-pigweed/?utm_source=knowledgemarketing&utm_medium=newsletter&utm_campaign=paenews+02022017&omhide=true

**Myth-Busting Weed Rumors**-February 11 2017-Source: Ag Web
http://www.agweb.com/article/myth-busting-weed-rumors-naa-sonja-begemann/

**Health**

**Grapes help prevent Alzheimer's disease**-Grape-enriched diet prevents metabolic brain decline, improves memory-February 5 2017-Source: Morning Ag Clips
https://www.morningagclips.com/grapes-help-prevent-alzheimers-disease/?utm_content=articles&utm_campaign=NLCampaign&utm_source=Newsletter&utm_term=newsletteredition&utm_medium=email#sthash.FJhTN9nH.dpuf

**Mobile Aps**

**TECH MOBILE TOOL BOX** -February15 2017-Source: Ag Tech Farm Journal

http://preferences.farmjournal.com/rs/843-YGB-793/images/Tech_Mobile_Tool_Box.pdf?aliId=895452439

**SCIENCE**

**Monoculture in cover crops is often better than polyculture**-February 1, 2017-Source: Genetic Literacy Project https://www.geneticliteracyproject.org/2017/02/01/monoculture-cover-crops-often-better-polycultures/

**Drones, Robots Deployed As Farm Research Assistants**-February 14 2017-Source: Ag Web
http://www.agweb.com/article/drones-robots-deployed-as-farm-research-assistants-naa-ben-potter/

**New App Helps Fruit Growers Calculate Chill Hours**-February 16 2017-Source: Growing Produce

http://www.growingproduce.com/fruits/new-app-helps-growers-calculate-chill-hours/?utm_source=knowledgemarketing&utm_medium=newsletter&utm_campaign=gpweeklynews+02252017&omhide=true&eid=225307565&bid=1674621

**Orchard Pruning**

**Tips to Prune Smarter, Not Harder in Your Orchard**-February 4 2017-Source: Growing Produce

http://www.growingproduce.com/fruits/apples-pears/tips-to-prune-smarter-not-harder-in-your-orchard/?utm_source=knowledgemarketing&utm_medium=newsletter&utm_campaign=afgenews+02082017&omhide=true&eid=225307565&bid=1657572

# 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 | | Area of Expertise & Assistance Provided |
|---|---|---|---|
| **Name & Address** | **Phone** | **Email & Website** | |
| Dr. Melanie Lewis Ivey, Asst. Professor<br>Dept. Plant Pathology<br>224 Selby Hall -- OARDC<br>1680 Madison Avenue<br>Wooster, OH 44691 | 330-263-3849<br>330-465-0309 | E-mail: ivey.14@osu.edu<br>Website: http://www.oardc.ohio-state.edu/fruitpathology/<br>Facebook:<br>www.facebook.com/fruitpathology | Grape Diseases Diagnostics and Management. Recommendation on grape fungicides and biocontrols. Good Agricultural Practices and Food Safety Recommendations. |
| Dr. Celeste Welty<br>Dept. of Entomology<br>Columbus, Ohio | 614-292-2803 | E-mail: welty.1@osu.edu | Fruit and vegetable Insects |
| Dr. Doug Doohan, Professor<br>Dept. Horticulture & Crop Science<br>205 Gourley Hall – OARDC<br>1680 Madison Avenue<br>Wooster, OH 44691 | 330-202-3593 | E-mail: doohan.1@osu.eduWebsite: www.oardc.ohio-state.edu/weedworkshop/default.asp | Vineyard weeds and control. Recommendation on herbicides |
| Dr. Imed Dami, Associate Professor & Viticulture State Specialist<br>Dept. Horticulture & Crop Science<br>216 Gourley Hall – OARDC<br>1680 Madison Avenue<br>Wooster, OH 44691 | 330-263-3882 | E-mail: dami.1@osu.edu<br>Website: oardc.osu.edu/grapeweb/ | Viticulture research and statewide extension & outreach programs. Recommendation on variety selection. Imed is the primary research contact of the viticulture program. |

| | Contact Information | | Area of Expertise& Assistance Provided |
|---|---|---|---|
| **Name & Address** | **Phone** | **Email & Website** | |
| Dr. Elizabeth Long, Assistant Professor<br>OSU/OARDC Entomologist<br>105 Thorne Hall, Wooster, OH 44691 | 330-263-3725 | E-mail: long1541@osu.edu | Fruit and vegetable insects |
| Dr. Gary Gao , Small Fruit Specialist and Associate Professor, OSU South Centers<br>1864 Shyville Road, Piketon, OH 45661<br>OSU Campus in Columbus<br>Room 256B, Howlett Hall, 2001 Fyffe Ct<br>Columbus, OH 43201 | 740-289-2071 ext.123<br>Fax:740-289-4591 | E-mail: gao.2@cfaes.osu.edu<br>Website: http://southcenters.osu.edu/ | 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 |
| David Scurlock, Viticulture Outreach Specialist<br>118 Gourley Hall – OARDC<br>1680 Madison Avenue<br>Wooster, OH 44691 | 330-263-3825 | E-mail: scurlock.2@osu.edu<br>Website: oardc.osu.edu/grapeweb/ | Evaluation of site suitability for vineyard establishment and all aspects of grape production practices in northern Ohio. David is the primary extension contact of the viticulture program |
| Todd Steiner, Enology Program Manager & Outreach Specialist<br>Dept. Horticulture & Crop Science<br>118 Gourley Hall – OARDC<br>1680 Madison Avenue<br>Wooster, OH 44691 | 330-263-3881 | E-mail: steiner.4@osu.edu<br>Website: oardc.osu.edu/grapeweb/ | Commercial wine production, sensory evaluation, laboratory analysis/setup and winery establishment. Todd is the primary research and extension contact of the enology program |
| Andrew Kirk, AARS Station Manager<br>Ashtabula Agricultural Research Station<br>2625 South Ridge Road<br>Kingsville, OH 44048 | 440-224-0273 | E-mail:<br>Website: www.oardc.ohio-state.edu/branches/branchinfo.asp?id=1 | Winegrape production in Northeast Ohio, especially *vinifera* varieties |

| | Contact Information | | Area of Expertise& Assistance Provided |
|---|---|---|---|
| **Name & Address** | **Phone** | **Email & Website** | |
| David Marrison, County Extension Director, Associate Professor & Extension Educator, OSU Extension-Ashtabula County 39 Wall Street Jefferson, Ohio 44047 | 440-576-9008 Ext. 106 | E-mail: marrison.2@osu.edu<br>Website: ashtabula.osu.edu | Vineyard and winery economics, estate planning and Extension programs in Northeast Ohio |
| Dr. Erdal Ozkan Professor & Extension State Specialist, Food, Agric. & Biological Engineering Dept. 590 Woody Hayes Drive Columbus, OH 43210 | 614-292-3006 | E-mail: oxkan.2@osu.edu<br>Website: http://fabe.osu.edu/our-people/erdal-ozkan | Pesticide application technology; Sprayer calibration |
| Patrick Pierquet Dept. Horticulture & Crop Science 130 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691 | 330-263-3879 | E-mail: patrick_pierquet@hotmail.com | Wine Cellar Master- Micro vinification, sensory evaluation and laboratory analysis |