

Ohio Grape-Wine Electronic Newsletter

Editor: David Scurlock, Viticulture Outreach Specialist
Department of Horticulture and Crop Science
Ohio Agricultural Research and Development Center
1680 Madison Avenue
Wooster, OH 44691-4096



3 July 2015 (18)

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SWD Detected in Wooster Black Raspberries

by Dave Scurlock, OSU/OARDC Viticulture Outreach Specialist

Attention grape growers the SWD is alive and well in 2015. John Elliott and I have placed a network of SWD traps up in the Wooster area to try to trap and identify the notorious SWD. We trapped and identified the first SWD of the season in Black Raspberries July 13. Drs. Celeste Welty and Jim Jasinski have also set up an extensive network of SWD and BMSB traps throughout the state using many volunteers to keep us up to date on the spread of these two insects. Dr. Gary Gao and Ryan Slaughter of the Picketon South Centers Research Center have also set up a network of traps to better understand the SWD and BMSB overwintering habits.

SWD become most active in grapes when the sugar levels are around 15% brix. There are new lures that we are using that are more user friendly and they last approximately 8 weeks. Below is a picture of the old trap with the new lure inside.



SWD Trap with new Pherocon Lure

Photo by Dave Scurlock

For more information and a fact sheet on SWD please click on the link below.

http://entomology.osu.edu/welty/pdf/SWD_Ohio_handoutV8.pdf

2014-2015 Phylloxera Study

by Dave Scurlock, OSU/OARDC Viticulture Outreach Specialist and Dr. Gary Gao, OSU Small Fruit Specialist

In 2014 we initiated an experiment to control phylloxera on Frontenac. Frontenac is extremely sensitive to phylloxera and reacts violently to infestation. The leaves give the appearance that they have been sprayed by 2 4D because they become so contorted. This contorted appearance certainly will affect the vines ability to photosynthesize. In 2014 we were able to eliminate any symptoms of phylloxera galling on the leaves. In 2015, we have repeated the experiment with the same results. The other good news is that we have several really good insecticides to use. **The learned benefit of this experiment is timing of your sprays.** We applied the treatments at the 8 to 10 inch shoot stage and then reapplied the treatments in 10 to 14 days. The treatments were:

Soil Applied	Rate/A	Rate/A	Rate/gal	TIME OF 1st	Date of
Insecticide	oz/A	oz/gal	ml/gal	APPLICATION	Application
1 Admire Pro	14	0.14	4.2	BUD SWELL	May 6
2 Admire Pro	7	0.07	2.1	BUD SWELL	May 6
*Soil Applied at 1qt/vine					
Foliar Applied	Rate/A	Rate/A	Rate/gal	TIME OF 1 st	Date of
Insecticide	oz/A	oz/gal	ml/gal	APPLICATION	Application
3 Admire Pro	7.0	0.07	2.1	8-10"PREBLOOM	5/22-6/12
4 Leverage	5.1	0.05	1.5	8-10"PREBLOOM	5/22-6/12
5 Mustang Max	4.0	0.04	1.2	8-10"PREBLOOM	5/22-6/12
6 Danitol	10.7	0.11	3.2	8-10"PREBLOOM	5/22-6/12
7 Baythroid	5.3	0.03	1.0	8-10"PREBLOOM	5/22-6/12
8 Movento	8.0	0.08	2.4	8-10"PREBLOOM	5/22-6/12
9 Control	No Insecticide Application				

*Soil Applied at bud swell

*Foliar Applied pre-bloom at 7-10 inch shoot growth

The results for 2014 and 2015 are:

The standard is Danitol applied at 8 to 10 inch shoot growth in the spring. We applied Admire Pro to the soil about 3 weeks ahead of when we thought the shoots would be in the 8 to 10 inch length. Admire Pro is a systemic insecticide and it takes about 3 weeks for it to get into the vine through the roots up to the canopy and back down to the roots. We used 14oz/Acre and 7oz/Acre. The 14oz/Acre is better, we did not see any phylloxera at all but we did have good control with the 7oz/Acre being soil or foliar applied in 2014. In 2015 the low rate of Admire Pro did have some symptoms of phylloxera but not detrimental to the crop. I think the low rate had some phylloxera due to the amounts of rainfall we received after the application. We applied 1 quart per vine with the soil applied treatment and did not retreat. I think you could apply the soil treatment with an herbicide applicator. All the foliar treatments were applied at 8-10 inch shoot growth and then reapplied 3 weeks later. All treatments worked well in both 2014 and 2015. Another effective chemical that can be used to treat for phylloxera is Assail. Apply Assail 30SG at the rate of 2.5oz/Acre and reapply in 2 weeks. We did not have enough vines to include it in this trial. If you have a problem this year I can guarantee you will not next year if you follow the timing of the sprays. *We did add 1% spray penetrant to the Movento insecticide and the penetrant we used was JMS Stylet Oil.

Vine Collapse

by Dave Scurlock, OSU/OARDC Viticulture Outreach Specialist



Winter injured vine July 30 2015

Photo by Dave Scurlock

Above is a picture of a partial vine collapse from winter injury. This is the time period when the summer temperatures heat up and the vascular system of the plant cannot meet the demand of the nutrients and water needed for continued growth. The result is the vine just shuts down. Upon inspection of the trunk in the lower photo there appears to be some trunk damage on the left side. The trunk is sending out adventitious roots at the point of injury. Symptoms of winter injury can be with us for several years following severe winters like we had in 2014 and 2015. This shows the importance of multiple trunking. It is a simple insurance policy that can at least pay you some dividends until the whole vine finally

recovers. This trunk will be cut back and hopefully we will get a replacement trunk. In the meantime, we can take a shoot from the good cordon and train it to be a temporary/permanent cordon to replace the injured one so we can take advantage of the available fruiting space in the following season, 2016.



Arrow indicates area of trunk injury July 30 2015

Photo by Dave Scurlock

OARDC Vineyard Update

by David Scurlock, Viticulture Outreach Specialist OSU/OARDC

Grape Phenology:



Cab franc July 30 2015

Photo by Dave Scurlock

The vinifera vines of Cab franc, Chardonnay and Riesling have not reached veraison at this date and the crop is very light. Barring a severe winter (2015-6), these vines should be ready to produce a full crop next year.



Chardonnay July 30 2015

Photo by Dave Scurlock



Riesling July 30 2015

Photo by Dave Scurlock



Chambourcin July 30 2015, veraison Photo by Dave Scurlock



Traminette July 30 2015 Photo by Dave Scurlock



Chardonnay July 30 2015 Sunburning of berries from late leaf pulling Photo by Dave Scurlock



Marquette July 30 2015

Photo by Dave Scurlock



Frontenac July 30 2015, veraison

Photo by Dave Scurlock



LaCrescent July 30 2015

Photo by Dave Scurlock

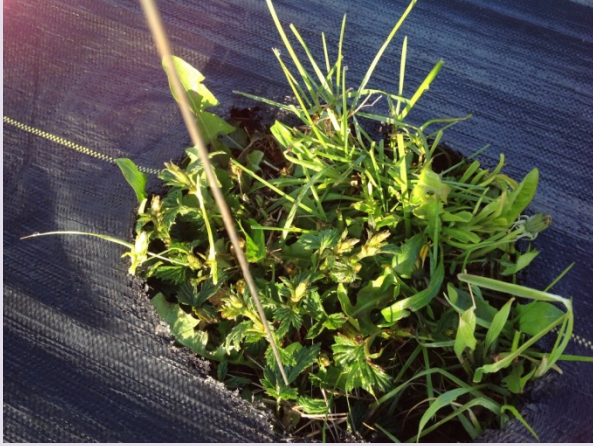


Regent July 30 2015

Photo by Dave Scurlock



Apples July 29 2015. Starting to color Photo by Dave Scurlock



Hop development April 29 2015



Hop development 1 month later May 29 2015



Hop development 1 month later June 29 2015



Hops July 30 2015

Photo by Dave Scurlock



Hop cones July 30 2015

Photo by Dave Scurlock

Hops have been suffering from downy mildew and Japanese beetles just like the grapes.

Weather Conditions: Weather comparisons of July 2015 vs. July 10 year average

Year	July 10 YEAR AVERAGE VS. 2015 July DATA				
	Precip.in.	Ave. Max. Temp ⁰ F		Ave. Min. Temp ⁰ F	GDD
2014	2.8	79.2		59.1	598
2013	6.6	81.5		63.1	674
2012	2.3	88.2		64.8	815
2011	2.9	87.3		64.9	797
2010	4.9	84.9		62.9	745
2009	2.9	78.1		56.5	543
2008	4.5	82.9		60.4	678
2007	5.8	81.6		56.9	604
2006	6.5	84.5		63.3	721
2005	4.0	86.1		63.2	743
10 year July average 2005-2014	4.3	83.4		61.5	692
2015 data *July 1-29	3.3	81.4		59.6	587

*July 2015 Data is inclusive up to July 29

Accumulated GDD's from April 1 to July 31 comparison:

2005-2014 April-July=1728.4 GDD average versus 2015 April-July=1684 GDD

I was very surprised when I counted 18 days in July when it did not rain according to the Wooster weather data. In retrospect it seems like it only quit raining this last week of July. We were lower in all weather categories of precipitation, average maximum/minimum temperatures, and monthly growing degree day totals in July 2015, compared to the July, 10 year average from 2005-2014. The last week of July had 3 to 4 days of 90⁰F and 5 out of the last 7 days had over 85⁰F days. You can see from the Accumulated GDD, April 1-July 31 2015, we are about **44** GDD's below the 10 year average for this period. Although we are behind in our GDD's, insects and veraison are a little ahead. The Japanese beetles appeared a week ahead of last year and veraison usually occurs in August for most of our varieties.

Pest & Disease Situation

Weeds



Conditions have been ideal for weed growth and less than ideal for weed control. The cool wet spring through early summer, has made it difficult to get into the vineyard to apply herbicides and where herbicides have been applied the constant rains have diluted the effects of the herbicides. It appears that many of our contact herbicides such as Rely, Forfeit and Cheetah are not readily available. Weed control is not a one and done cultural practice either. Pre-emergent herbicides (Surflan, Karmex or Princep) help to extend our weed control but only for an additional month or so. We need to treat troublesome areas throughout the growing season when they are needed. The benefit to good weed control under the vine is quicker drying time, better air circulation and potentially less disease and insect pressure.

Insects

Phylloxera appears to be more prevalent across the state this year. They too like the cool wet spring. We have several really good insecticides to control these but they must be applied at the 8 to 10 inch shoot stage and then repeated in 2 weeks to get control. If you have any questions please contact Dave Scurlock or Dr. Gary Gao for recommendations. Japanese beetles have subsided to some extent although there are some areas around the state that are still spraying for them. JB can wreak havoc in a new planting by defoliating it. We have been trapping for SWD and now is the time to put out traps in your vineyard to trap and identify this pest. We caught and identified the SWD in black raspberries in the middle of July, so they are here.

Disease-Downy continues to be a problem around the state in July

Downy mildew continues to be a problem across the state. Early in the growing season we had ideal conditions for downy mildew development and it was very difficult to get into the vineyard to control it. I am seeing downy across the state and every effort is being made by growers to prevent it and or burn it out. In a previous OGEN, http://ohiograpeweb.cfaes.ohio-state.edu/sites/grapeweb/files/imce/pdf_newsletters/OGEN20150512%2813%29.pdf, Dr. Mike Ellis mentioned Zampro, a new chemical with a new chemistry, that has had good results from Dr. Wayne Wilcox's research. Zampro is a cost effective material for late season downy mildew. It has a PHI of 14 days. It is listed in the 2015 Midwest Small Fruit and Grape Spray Guide. The following is an excerpt but for more details see the link above from the May 12 2015 OGEN newsletter.

a. *Relatively new downy mildew-specific product, Zampro.* Although Zampro received US-EPA registration in September 2012, it is still not registered in the sovereign state of New York. Zampro is a combination product that contains two active ingredients: (i) dimethomorph (a fungicide that is in the same group as the active ingredient of Revus, i.e., Group 40); and (ii) ametoctradin, which is new chemistry unrelated to any other fungicide now on the market. The Group 40 materials have some post-infection activity but are not absorbed well by plant tissues and consequently are strongest in a protective mode. Anecdotal observations suggest that ametoctradin has significant post-infection activity in addition to protective activity, although publicly-available data on such issues are limited.

One good thing that could be said about the 2014 growing season in the Finger Lakes region is that it provided an excellent opportunity to test the efficacy of downy mildew fungicides. We ran our trial in a block of Chardonnay vines, in which (to put pressure on the products and for convenience in scheduling with our other trials) we sprayed most treatments at 2-week intervals. Unsprayed vines were defoliated by September and were killed to the ground this winter (bummer). However, season-long sprays of both Zampro and Revus Top provided virtually complete control of downy mildew, with only single spots developing on one leaf out of every 20 to 30. No other products looked this good when applied similarly. (Note: We obviously do NOT recommend using any one product season long, but it's hard to evaluate the activity of individual products when we use them in a rotational program on the same vines).



Under side of leaf infected with downy mildew



Advanced downy mildew picture taken on vinifera June 29 2015. Same condition exists as of July 29 2015.

The weather conditions have continued to be favorable for downy infection so keep the vines protected. **Mancozeb protects against black rot, anthracnose, phomopsis and of course downy mildew but the PHI for most varieties has passed.** Phosphorous acid can have some kick back on downy if you get it early enough after an infection. There are several different brand names for this such as Agri-Fos, Aliette, Legion, Phostrol, ProPhyt, Rampart and Topaz. An excerpt from Dr. Mike Ellis's 2015 spray program on downy mildew control:

Downy Mildew

The strobilurin fungicides (Abound, Sovran and Pristine) provided good to excellent control of downy mildew when they were first introduced. Several reports from various areas in Europe and, most recently from Virginia indicate that the downy mildew pathogen has developed resistance, or is at least less sensitive, to the strobilurin fungicides.

Growers that have used strobilurin fungicides for several years and have made several applications per year need to consider the possibility of not using strobilurin fungicides for downy mildew control. If resistance to downy mildew is present in your vineyard and you are using strobilurins to control other diseases, they should be tank mixed with another fungicide with activity against downy mildew. Alternative downy mildew fungicides include: Mancozeb, Captan, Ridomil Gold MZ, Ridomil Gold Copper, Revus, Presidio, Ranman, Forum, a copper fungicide or a phosphorous acid (phosphite) fungicide. Pristine still provides good control of powdery mildew when used alone and was the only material that would control almost all of our major disease when used alone. Unfortunately, if resistance to downy mildew is present, it should be combined with an effective downy mildew fungicide.

If you have any disease questions please call Dr. Mike Ellis at 330-263-3849 or email at ellis.7@osu.edu

Cultural Practices:

We have applied 7 cover sprays to the vineyards in Wooster. Our 7th spray was applied this week and contained a combination of Captan (Downy), Rally(Powdery), TopsinM (Powdery), Vangard (Botrytis) and SevinXLR (insecticide). Veraison is now beginning and fine tuning of the crop adjustment, shoot positioning and leaf pulling will be gone over for a second time. Hedging the VSP trained vinifera will be the next operation in the field. A lot of money is being spent on sprays this year to try to maintain a good clean healthy vineyard.

***Remember: This is the time period, from July 15 to August 15 to take your petiole samples. Please see the article of Petiole Sampling in this issue**

Grower Observations:

I believe some growers are noticing or will notice some vine collapse from winter injured vines. A typical vine may look normal and then all of sudden just wilt down overnight. The recent 90⁰F temperatures and with a good crop load will cause the vines to collapse suddenly if there is trunk/cordon injury. I have not seen or heard of anyone seeing grape berry moth but this is an ideal time for them to infest the fruit. SWD have been caught in black raspberries and will move to grapes as the brix approach 15% brix. Sun burning can injury clusters that have leaves removed at this time of year. The better time to do leaf removal in the fruiting zone is 10 to 14 days after fruit set. This allows the fruit more time to acclimate to the heat, increases sugars quicker and can help reduce rots.

Reminder to Petiole Sample

By Dave Scurlock, OSU/OARDC Viticulture Outreach Specialist

We recommend to petiole sample every year to obtain a history on the nutrient status of your vineyard. If you do not have any visual clues of nutrient deficiency problems then every other year will probably suffice.

Timing of petiole sampling

If you have problems with fruit set then petiole sampling in the spring around bloom may be the appropriate time to sample petioles. To obtain the general nutrient status of the vine petiole sampling should be done between July 15 and August 15.

How do you petiole sample?

Take petioles from the last fully expanded healthy leaf that is and exposed to the sun. This leaf is generally thought to be mid shoot or approximately 7 leaves back from the tip of the shoot. This should be done on both sides of the trellis and is done per variety. Tear the leaf portion off and keep the petiole or stem portion for analysis. Collect around 40 to 50 petioles depending on variety. 30 petioles on bigger leaf/petiole varieties such as Concord are probably adequate. These petioles can be air dried and sent in to the lab for a complete analysis.



Chambourcin shoot base (left) tip (right). Arrow points to newest fully expanded leaf.
Photos by Dave Scurlock



Leaf removed



Petiole separated from leaf



Record information, air dry and send in for analysis-approx. 40-50 petioles depending on size.

Soil sampling can be accomplished any time of the year. We always recommend to soil sample at least a year prior to planting so the soil nutrient status and pH can be corrected ahead of time. Soil sampling can be done every 3 to 5 years to keep informed of the soil nutrient condition.

The soil and petiole tests when compared with each other can tell you what is in the soil and what the vine is able to take up.

The normal range for petioles is:

Nutrient	Recommended range
Nitrogen	.9-1.3%
Phosphorus-P	.16-.29%
Potassium-K	1.5-2.5%
Calcium-Ca	1.2-1.8%
Magnesium-Mg	.26-.45%
Manganese-Mn	31-150ppm
Iron-Fe	31-50ppm
Copper-Cu	5-15ppm
Boron-B	25-50ppm
Zinc-ZN	30-50ppm

The normal range for soils is:

Nutrient	Recommended range
Nitrogen	Soil test Not recommended for N status
Phosphorus-P	30-90lbs/A
Potassium-K	200-400lbs/A
Calcium-Ca	800-16,000lbs/A
Magnesium-Mg	150-2,000lbs/A
Manganese-Mn	20-40lbs/A
Boron-B	.05-2lbs/A
Zinc-ZN	3-12lbs/A

Be proactive, test and know your nutrient status.

New Grape Crop Insurance Coverage

by Dave Scurlock, OSU/OARDC Viticulture Outreach Specialist

This week, during my usual early morning ritual, I was listening to an interview between Agri Broadcast Network Dale Minyo and Secretary of Agriculture Tom Vilsack and I heard the words grape and crop insurance. I am attaching the recorded interview for your listening pleasure so that I do not misquote or misinterpret the conversation between Dale and Secretary of Agriculture Tom Vilsack.

**Click here for Dale Minyo
Interview with Tom Vilsack!**

Another piece of information that you will hear in this interview is the website to obtain additional information. That website is: RMA.USDA.GOV or click on <http://www.rma.usda.gov/> this is the Risk Management Agency of the USDA.

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
OHIO STATE UNIVERSITY EXTENSION

Ohio Superberry & Winegrape Field Night

at Ohio State University South Centers

Thursday,

August 20, 2015

6:00 — 9:00 P.M.

*Hosted by Dr. Gary Gao,
Dave Scurlock, & Ryan
Slaughter*

Location: OSU South Centers
1864 Shyville Rd., Piketon, OH
Large Auditorium, Research
Building

Cost: \$25.00*

**includes a light dinner*

To Register:

Contact Charissa Gardner
McGlothlin at
mcglothlin.4@osu.edu or at
740.289.2071 ext. 132

DEADLINE to Register:

Monday, August 17, 2015



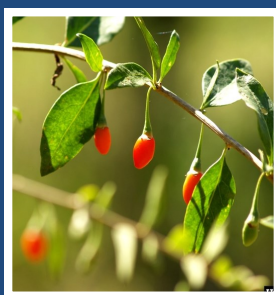
THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES



Learn the basics on these topics:

- ◆ Eldeberry, Aronia Berry, and Goji Berry Production and Marketing
- ◆ Blueberry Cultivars and Production Techniques
- ◆ Summer and Fall Vineyard Management Practices
- ◆ Blackberry & Raspberry Production Systems
- ◆ Introduction to Elderberry, Aronia, and Goji Berry Production
- ◆ Field tour
- ◆ And more!



CFAES provides research and related educational programs to clientele on a nondiscriminatory basis.



2015 Northeast Ohio Grape Field Day

Thursday, August 27, 2015 (3:00 to 8:00 p.m.)

Harpersfield, Ohio 44041

Strategies for Managing Winter Injured Vines – Stop #1 (3:00 - 4:20 p.m.)

at Ferrante Winery & Ristorante - 5585 State Route 307, Harpersfield, Ohio

Every grower in the state of Ohio was affected by the extreme low temperatures the past two winters. Dr. Imed Dami and Nick Ferrante will present information on how the Ohio grape industry is adapting to winter injury concerns. Learn more about the Ferrante's hilling & dehillng practices. Participants will also learn more about OARDC's retraining trials which are being conducted in this vineyard. (travel to stop #2 from 4:20-4:40 p.m.)



Strategies for Managing Winter Injured Vines – Stop #2 (4:40 - 5:15 p.m.)

at M Cellars – 6193 South River Road, Harpersfield, Ohio

Matt Meineke will present information on how M Cellars has changed their winter protection strategies for vine protection through the practice of burying canes. Learn the when, how and the outcomes of burying canes. Participants are requested to park on the east side of the winery by the equipment barns -look for signs. (travel to dinner 5:15-5:30 p.m.)

Picnic Dinner (5:30 - 6:00 p.m.)

Kosicek Vineyards - 636 State Route 534, Harpersfield, OH 44041

A picnic style dinner will be served prior to the sprayer calibration workshop at Kosicek Vineyards. The dinner fee will be \$5 per person. In order to ensure a meal, we must have reservations by Thursday, August 20.

Preparing and Calibrating Air Blast Sprayers (6:00 - 8:00 p.m.)

Kosicek Vineyards - 636 State Route 534, Harpersfield, Ohio 44041

Dr. Erdal Ozkan, from OSU's Department of Food, Agriculture, and Biological Engineering, will lead an air blast sprayer calibration session and update growers on optimizing spray coverage for better control of pests and diseases. This workshop will help save you MONEY and make you a more effective, efficient spray applicator. Learn more about calibration, how to use water sensitive paper strips, and learn about enhanced coverage and drift reduction through recent nozzle advancements. Dr. Ozkan will also recommend improvements to equipment, GPA, pressure, nozzle selection, and speed to maximize coverage and control. A special thank you is extended to Fred's Water Service in Madison, Ohio for supplying the air blast sprayer for this workshop. Two hours of Commercial & Private CORE Pesticide Applicator Credits will be offered for attendees.

Fred's Water Service, Inc.
Du-All Pumps, Parts, & Service



2636 Townline Rd., Madison, Ohio 44057
ph:(440)259-5436 fax:(440) 259-4795
www.fwservice.com

2015 NE Ohio Grape Field Day

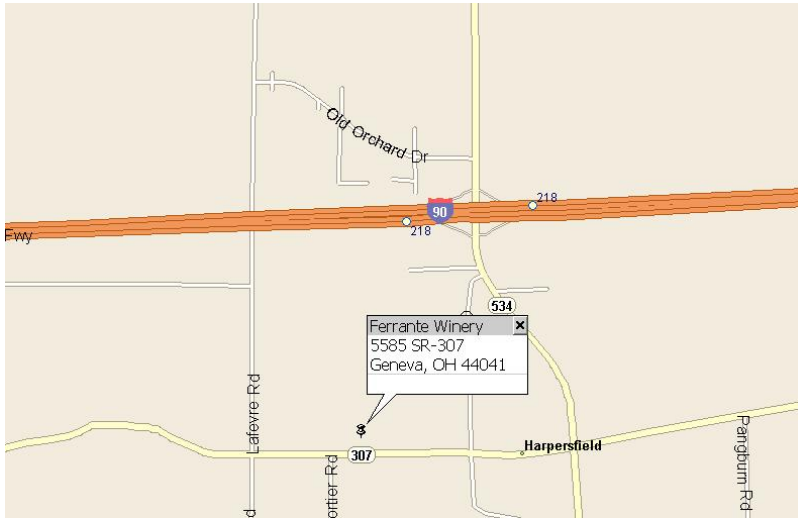
Name _____
Address _____
Phone _____ Email _____

I will attend the Session at Ferrante's Winery	_____ yes	_____ no	_____ # attending
I will attend the Session at M Cellars	_____ yes	_____ no	_____ # attending
I will attend the Pesticide Session at Kosicek Vineyards	_____ yes	_____ no	_____ # attending
I will be eating at the Picnic Dinner	_____ yes	_____ no	_____ # attending
	_____ @ \$5.00 per person		Total Due \$ _____

Reservations are due by August 20, 2015. Please mail with checks payable to OSU Extension and mail back to OSU Extension, 39 Wall Street, Jefferson, OH 44047. Call 440-576-9008 for more information.

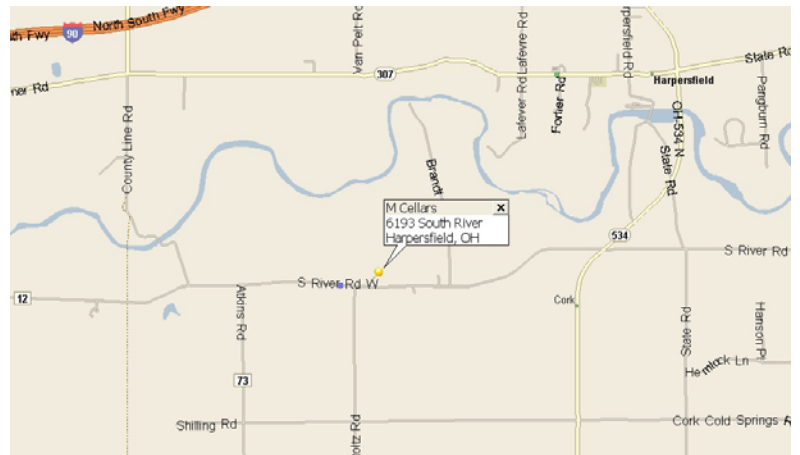
Ferrante Winery

5585 State Route 307, Harpersfield, Ohio



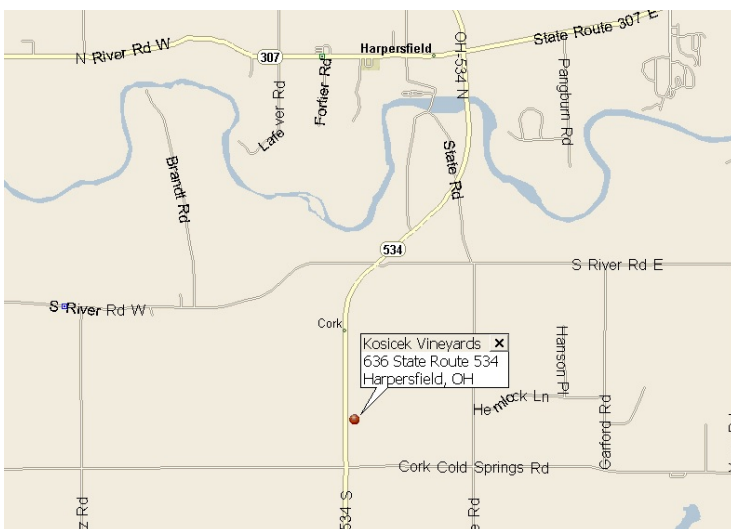
M Cellars

6193 South River Road, Harpersfield, Ohio



Kosicek Vineyards

636 State Route 534, Harpersfield, Ohio





Please raise a glass to celebrate the life of a wonderful woman.



Linda Frisbie

Arnie Esterer just shared word of Linda Frisbie's passing. Her full obituary is below. However, the words in the paper do not fully tell the story of how great woman Linda was. Her middle name was 'Grace:' it perfectly described that wonderful woman. To all who had the honor to know her, she was talented, smart, incredibly loyal and fun to be around. She had a great heart and was kind to all. And, while the paper talked about her very important role at Markko Vineyards, it not do full justice to the importance of this woman to the Ohio wine community ... beyond her significant role at Markko.

I often wondered if she had not come to Arnie looking for vineyard work more than 40 years ago, how might both her life and the success of the Ohio wine industry been different. She did not grow up among a community of 'connoisseurs,' but she developed one of the most sophisticated palates of anyone I have ever known. She was an anchor at the vineyard and in the wine cellar. And while Arnie's passion and commitment to great wines from the Lake Erie region is well known, Arnie readily admits her palate helped guide the wines he released.

And as to her greater role: 'Markko' has been widely recognized an Ohio wine leader and visionary for over four decadesand that iconic operation helped shape the greater world's view of our industry. Linda supported Arnie's vision at every level. Our entire wine family is appreciative of all she contributed to Markko and how it helped build respect for Lake Erie and the Ohio industry at large.

CONNEAUT - Linda Grace Frisbie, age 75, of Conneaut, Ohio, passed away peacefully Sunday, July 12, 2015, at St. Joseph Medical Center in Andover, Ohio.

She was born June 4, 1940, in Palatka, Fla., the daughter of the late Donald and Helen (Brocklehurst) Tenney.

Linda worked for over 40 years at Markko Vineyard in Conneaut. She worked alongside Arnie, helping with the pruning, winemaking, and serving the customers that came in to enjoy their beautiful creation of wine.

Linda also enjoyed birdwatching and was very knowledgeable on many different birds and their sounds. She had a green thumb and enjoyed creating beautiful flower gardens. Linda also enjoyed going out to eat and getting to visit with her friends and family.

Linda is survived by her daughters, Chris (Henry) Jarvi of Conneaut and Judy (Charles) Norman of Ashtabula; son, Kevin Throop of Minnesota; sister, Phoebe Tenney of Cuyahoga Falls; brother, Ralph (Florence) Tenney of Ashtabula; grandchildren, Melissa (Jonathan)

Carpenter, David (Amanda) Jarvi, Henry (Kristy) Jarvi, Matt (Ally) Jarvi, Mark and Christopher Jarvi, Christina (Ryan) Ellis, Michael (Lyndi) Kachersky and Charles (Jen) Kachersky; as well as 14 great-grandchildren; and her good friends Arnie Esterer and Cathy Derhammer.

She was preceded in death by her son, Denis Frisbie; daughter, Rhonda in infancy; and her parents.

A Celebration of Linda's Life will be held 7 p.m. on Thursday, July 16th, at the THOMPSON-SMITH-NESBITT FUNERAL HOME, 345 Main St., Conneaut. Calling Hours will be held Thursday from 5 to 7 p.m. at the Funeral Home.

In lieu of flowers, contributions may be made in her name to the American Heart Assoc. or the American Lung Assoc.

The THOMPSON-SMITH-NESBITT FUNERAL HOME AND CREMATION SERVICES, 345 Main St., Conneaut, is honored to serve the family.



-
- Donnie

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.

Name & Address	Contact Information		Area of Expertise & Assistance Provided
	Phone	Email & Website	
Dr. Mike Ellis, Emeritus Professor Dept. Plant Pathology 224 Selby Hall -- OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3849	E-mail: ellis.7@osu.edu *After Dec. 1 2014 Website: http://www.oardc.ohio-state.edu/fruitpathology/	Grape diseases and control. Recommendation on grape fungicides
Dr. Celeste Welty Dept. of Entomology Columbus, Ohio	614-292-2803	E-mail: welty.1@osu.edu	Fruit and vegetable Insects
Dr. Doug Doohan, Professor Dept. Horticulture & Crop Science 205 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-202-3593	E-mail: doohan.1@osu.edu Website: www.oardc.ohio-state.edu/weedworkshop/default.asp	Vineyard weeds and control. Recommendation on herbicides
Dr. Imed Dami, Associate Professor & Viticulture State Specialist Dept. Horticulture & Crop Science 216 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3882	E-mail: dami.1@osu.edu 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.

Name & Address	Contact Information		Area of Expertise & Assistance Provided
	Phone	Email & Website	
David Scurlock, Viticulture Outreach Specialist 118 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3825	E-mail: scurlock.2@osu.edu 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 Dept. Horticulture & Crop Science 118 Gourley Hall – OARDC 1680 Madison Avenue Wooster, OH 44691	330-263-3881	E-mail: steiner.4@osu.edu 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
Dr. Gary Gao, Small Fruit Specialist and Associate Professor, OSU South Centers 1864 Shyville Road, Piketon, OH 45661 OSU Campus in Columbus Room 256B, Howlett Hall, 2001 Fyffe Ct Columbus, OH 43201	740-289-2071 ext.123 Fax: 740-289-4591	E-mail: gao.2@cfaes.osu.edu 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
Greg Johns , Station Manager Ashtabula Agricultural Research Station 2625 South Ridge Road Kingsville, OH 44048	440-224-0273	E-mail: johns.1@osu.edu Website: www.oardc.ohio-state.edu/branches/branchinfo.asp?id=1	Winegrape production in Northeast Ohio, especially <i>vinifera</i> varieties

	Contact Information		Area of Expertise& Assistance Provided
	Name & Address	Phone	
David Marisson, 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 Website: ashtabula.osu.edu	Vineyard and winery economics, estate planning and Extension programs in Northeast Ohio