

***Wine-Grower-News #46***      *June 6, 2008*

Midwest Grape & Wine Industry Institute: <http://www.extension.iastate.edu/Wine>

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***Petiole Analysis vs. Soil Analysis***

Soil tests are used prior to planting a vineyard to determine the levels of organic matter, phosphorous, potassium, zinc, boron, magnesium and pH. ISU recommends taking 15-20 soil cores anywhere from 12-16" deep. The top half (6-8") of these cores should be placed in one sample bag and the lower depth (6- 12" or 8-16") of these cores placed in another sample bag. Each sample bag should be identified before sending into a soil test lab for analysis. Optimum soil fertility ranges will often vary slightly between states and regions primarily due to variations in soil, climate and cultivars being grown. Example,.. French cultivars (*Vitis vinifera*) and many of their resulting hybrids can often tolerate slightly higher soil pH's than most of our American cultivars. The following table compares the optimum soil test levels recommended in Midwest Small Fruit Pest Management Handbook, (Bulletin 861) versus the ranges recommended by Iowa State University.

<b><u>Analysis</u></b>		<b><u>Bulletin 861</u></b>	<b><u>ISU</u></b>
	pH	5.5 – 6.5	6.0 – 6.5
Organic Matter	OM	2 – 3%	2 – 4%
Phosphorous	P	20 – 50 ppm	> 30 ppm
Potassium	K	125 – 150 ppm	> 150 ppm
Magnesium	Mg	100 – 125 ppm	. -----
Boron	B	0.75 – 1 ppm	-----
Zinc	Zn	4 – 5 ppm	4-5 ppm

Individuals sending vineyard soil samples into the ISU Soil Analysis Laboratory should use the test series code #6 noted on the ISU soil sample form available on the website. This \$15.50 test will check for OM%, P, K, pH, Zn, and Mg. Iowa's soils are seldom deficient in boron. Specific vineyard recommendations can be received if you note on the form to have Dr. Paul Domoto make grape recommendations. There are also many commercial soil test laboratories that can test your soil. Some will make grape recommendations and some will not. Results of these tests can also be e-mailed to Dr. Paul Domoto [Domoto@iastate.edu](mailto:Domoto@iastate.edu) at ISU Extension for recommendations. A list of Iowa certified commercial soil testing laboratories can be found here: <http://www.iowaagriculture.gov/feedAndFertilizer/certifiedSoilTesting.asp>

Petiole tests are the primary tool used to determine fertility needs once the vineyard is established. Petioles (stem portion of the leaf) is the tissue recommended for determining the nutritional needs of grape vines. Obtaining a representative sample is critical. Optimum nutrient ranges are based on petioles sampled at specific times during the season. The following guidelines should be used for proper sampling and handling procedures:

1. Full bloom (now) and around veraison (mid-July – mid-August) are the two times of the season to sample grapes. The full bloom sample is a suitable assay for nitrogen and boron. The veraison sample is more reliable for all the other nutrients.
2. At least 25-50 vines should be selected for sample collection. Vines not typical of the vineyard should be avoided.
3. Vines should be of the same age, variety, and rootstock growing on similar soil/site conditions.
4. For full bloom sampling, take the petioles from leaves opposite the bottom flower cluster. For samples taken at veraison, take the petioles from the most recently developed matured leaf.
5. Collect from 75 to 100 petioles. Short petioled varieties like Marechal Foch will need 150 to 200 petioles collected. Do not pick more than one petiole from any one shoot and do not sample any petioles connected to heavily diseased, insect or mechanical damaged leaves.
6. Dusty or dirty petioles should be rinsed with distilled water and patted dry with a paper towel. Place the collected samples in a "paper" bag and send into a testing laboratory. Make sure to record all the necessary information required by the testing laboratory.
7. Make sure to contact the testing laboratory prior to sending in the petiole test. You want to do it right the first time.

Many factors can affect the nutrient composition of plant tissue. Soil moisture, soil fertility, diseases, insects, crop load, weather, and cultural practices can directly affect petiole tests. But, when properly used, petiole testing will provide the most reliable method to determine fertilizer needs for established bearing vineyards. Comparing petiole tests from year-to-year often will show more reliable trends over time.

The ISU Soil & Plant Analysis lab currently **does not** do plant analysis testing for grapes. There are plenty of commercial labs who can do this for you. The cost will probably be in the \$23 to \$30 range. ISU Petiole sampling instructions and a list of commercial labs one can send a petiole sample to can be found here: <http://viticulture.hort.iastate.edu/info/pdf/leafsampling.pdf>

Additional Resources:

1. Midwest Small Fruit Pest Mgt. Handbook: <http://ohioline.osu.edu/b861/index.html>
2. ISU Soil & Plant Analysis Lab with Soil Sampling Guidelines and submittal form: <http://www.agron.iastate.edu/soiltesting/>
3. *Fertilizer Practices for Bearing Vineyards*, ppt by Dr. Paul Domoto, ISU Extension: <http://viticulture.hort.iastate.edu/info/pdf/vineyardfert05.pdf>
4. *Vineyard Soil and Fertility Management – Soil Testing & Petiole Analysis*, ppt by Dr. Carl Rosen, Univ. of Mn: <http://agronomy.unl.edu/viticulture/NE%20grape%20nutrition.pdf>

***Intervals You Need to Know***

The Pre-Harvest Interval (PHI) and the Restricted Entry Interval (REI) are the two most important numbers you need to know when applying pesticides. The PHI will often vary by labeled crop and one must read the label carefully to find it for grapes. Failure to comply with the PHI can end up dumping an entire tank of wine if an unlawful application was found to have been made to the grapes within the PHI. This can become very expensive!

The Restricted Entry Interval (REI) is fairly easy to find on each pesticide label. It is always found within the first 2-3 pages of any label in a box identified as “*Agricultural Use Requirements*”. The REI is the interval, often given in hours in which you or your vineyard workers cannot enter the vineyard unless wearing the labeled personal protective clothing (PPE). The required PPE will also be within the “*Agricultural Use Requirements*” box.

The following list shows the PHI and REI for the most common pesticides being used in our Iowa vineyards today. Those designated as Restricted Use Pesticides also require the person purchasing and applying to have a Private or Commercial Pesticide Applicators License.

<b><i>Pesticide</i></b>	<b><i>PHI</i></b>	<b><i>REI</i></b>	<b><i>Restricted Use Pesticide</i></b>
<b>Fungicides</b>			
Abound	14 days	4 hrs	no
Cuprofix Ultra 40	0	12 hrs	no
Captan 50WP	1	4 days	no
Captan 80WG	1	72 hrs	no
Elevate	0	12 hrs	no
Liquid Lime Sulfur	0	48 hrs	no
Mancozeb	66 days	24 hrs	no
Dithane M4, Penncozeb, Manzate, etc..			
Nova (Rally)	14 days	4 hrs	no
Potassium Bicarbonate			
Armcarb 100	0	4 hrs	no
Kaligreen	1 day	4 hrs	no
Phosphonates & Phosphites			
Agri-Fos, Phostrol	0	4 hrs	no
Phophyte, etc...			
Pristine	14 days	12 hrs	no
		5 days if hand working canes	
Ridomil Gold MZ	66 days	12 hrs	no
Ridomil Gold Copper	42 days	48 hrs	no

Rubigan	30 days	12 hrs	no
Sulfur	0	24 hrs	no
Topsin M	14 days	7 days	no
Ziram	21 days	48 hrs	no

### Herbicides

Aim	3 days	12 hrs	no
Chateau	60 days	12 hrs	no
Goal 2XL	60 days	24 hrs	no
Gramoxone Inteon	14 days	24 hrs	yes
Karmex (diuron)	not given	12 hrs	no
Poast	50 days	12 hrs	no
Prowl 3.3 nonbearing grapes only		12 hrs	no
Prowl H20	90 days	24 hrs	no
Princep	14 days	12 hrs	no
Rely	14 days	12 hrs	no
Roundup Original	14 days	12 hrs	no
Roundup UltraMax	14 days	4 hrs	no
Roundup WeatherMax	14 days	4 hrs	no
Surflan	0	12 hrs	no

### Insecticides

Assail	7 days	12 hrs	no
Aza Direct	0	4 hrs	no
Baythroid XL	3 days	12 hrs	yes
Danitol	21 days	24 hrs	yes
Thionex 50W (Endosulfan 50W)	7 days	24 hrs	no
Mustang Max EC	1 day	12 hrs	yes
Provado	0	12 hrs	no
Sevin	7 days	12 hrs	no
Venom	1 day	12 hrs	no

Note that pesticide labels are considered legal documents and can be changed often. **Always Read and Follow Label Directions.** The most current labels and supplemental labels can be found here: <http://www.cdms.net/LabelsMsds/LMDefault.aspx>

### *Demand Creates Need to Schedule Another ISU Basic Wine Analysis Class*

Due to the large amount of interest in the Basic Wine Analysis Workshop, the Midwest Grape & Wine Industry Institute has scheduled an additional opportunity for those who were not able to register for the one scheduled for July 8<sup>th</sup>.

#### **What: Basic Wine Analysis Workshop**

**When:** 9 AM to 5 PM, Tuesday, July 29, 2008

**Where:** CCUR Theater located in the Food Sciences Building on the ISU Campus, Ames, Iowa  
<http://www.fpm.iastate.edu/maps/>

**Cost:** \$75.00 each (includes lunch)

**Pre-Registration Required:** Limited to first 12 on a first come/first served basis. Contact Jo Gregg  
ph: 515-294-3308, fax: 515-294-4362, [jgregg@iastate.edu](mailto:jgregg@iastate.edu)  
**Sponsor:** Midwest Grape & Wine Industry Institute: <http://www.extension.iastate.edu/Wine>  
**Instructors:** Dr. Murli Dharmadhikari, Director of the Midwest Grape & Wine Industry Institute  
Dr. Sebastian Donner, Wine Lab Supervisor  
**Workshop Flyer can be found here:** <http://www.extension.iastate.edu/Wine/Events.htm>

### ***Western Iowa Grape Growers Workshop – Sat. June, 21st***

**What:** 6-21-08 Western IA Grape Growers Association Workshop  
**When:** 8:30AM to Noon, Saturday, June 21, 2008  
**Where:** Diane & Gary Forristall, Silver Creek Farms Vineyard, 35252 Pioneer Trail  
Macedonia, IA 51549, pH: 712-486-2511  
**Agenda:** Canopy Management - Randall Vos; DMACC; viticulturist  
The Midwest Grape & Wine Industry Institute at Iowa State University  
- Dr. Sebastian Donner; Wine Lab Supervisor  
**Cost:** \$15.00 WeIGGA member or \$20.00 non-member  
**Preregistration:** contact Charlie Caldwell, Black Squirrel Vineyard & Winery  
[caldhome@aol.com](mailto:caldhome@aol.com) , ph: 712-566-2681

**Note:** This viticulture workshop will cover many "why's", "how to", and "whens" of canopy management. A hands on visual approach to managing the canopy will be demonstrated at the Forristall's vineyard. Following the canopy management presentation, Dr. Donner will discuss what information he provides for the grower that sends in grape clusters to his lab.

### ***Tuesday, June 17th SE Iowa Vineyard Management Workshop***

**What:** Southeast Iowa Vineyard Management Workshop  
**When:** 6-9 PM, Tuesday, June 17, 2008  
**Where:** Whispering Pines Winery, Keosauqua, IA: <http://www.whisperingpineswinery.biz/>  
**Agenda:** 5:30 PM Registration & Refreshments  
6:00 PM Vineyard Pesticide Record Keeping Requirements, The Worker Protection Standard requirements for vineyard operators and Pesticide Drift Complaints - Robert Mikota, Field Inspector – Iowa Department of Agriculture & Land Stewardship: <http://www.iowaagriculture.gov/>  
6:45 PM Air Blast Sprayer and Fungicide Application Tips in the Vineyard  
Wayne Peterson, Midwest Grower Supply  
<http://midwestgrowersupply.com/>  
7:30 PM Break  
7:45 PM Canopy Management in the Vineyard - Mike White,  
9:00 PM Adjourn  
**Registration:** Please call or e-mail the Van Buren County ISU Extension office prior to noon, Monday, June 16<sup>th</sup> at [smclain@iastate.edu](mailto:smclain@iastate.edu) or call 319-293-3039  
**Cost:** \$15 per person, pay at the door.

## ***Institute for Continental Climate Viticulture & Enology - Upcoming Events in MO***

June 9 - Vineyard Best Management Practices

[Tailgate Meeting at Lynn Gay Farm, Hindsville, Ark.](#)

June 10 - Vineyard Best Management Practices

[Tailgate Meeting at Baltimore Bend Winery, Waverly, Mo.](#)

June 11 - Vineyard Best Management Practices

[Tailgate Meeting at Stone Hill Winery, Hermann, Mo.](#)

June 12 - Vineyard Best Management Practices

[Tailgate Meeting at Crown Valley Winery, Ste. Genevieve, Mo.](#)

July 8 -10 [Establishing and Operating a Small Winery Laboratory Workshop](#)

*Institute for Continental Climate Viticulture & Enology:* <http://iccve.missouri.edu/>

## ***Register Now For TTB Expo in Covington, Kentucky***

**What:** TTB Expo

**When:** June 17 & 18, 2008

**Where:** Northern Kentucky Convention Center, in Covington, Kentucky, just minutes away from downtown Cincinnati, Ohio.

**Agenda:** - two full days of more than 40 different educational sessions presented by TTB  
- exhibition booths

**Cost:** Free

**More information, Online registration, etc.:** <http://www.ttb.gov/conference/index.html>

## ***Misc. Musings***

1. We may not be able to deflect hail stones away from your vineyard, but Iowa State University will soon be able to deflect asteroids away from your grapes. ISU has established an Asteroid Deflection Research Center that will bring together scientists from around the world to develop asteroid deflection technologies. Rumor has it that Bruce Willis, the star of Armageddon has been hired as a technical consultant.:-) ISU News Release: <http://www.engineering.iastate.edu/news/news-article/article/1742/5828.html>

2. The Geneva, NY area has encountered some vary dry conditions so far this season. The Cornell Extension Service is recommending that vineyards consider knocking back the ground cover with a contact herbicide or cultivation in order to preserve soil moisture and to avoid water stress at bloom if the dry spell continues, especially on more drought prone soils (e.g., shallow soils or heavy compacted clays or silts). 6-2-08 Finger Lakes Vineyard update

3. One of our readers of last week's dandelion article wanted to remind me of one other use for dandelions that I forgot to mention. He and the other kids on his block would go to the local gas station after it was closed in the evening, open the pop caps while still in the vending machine and suck out the pop with dandelion stem straws. How could I have forgot that use?

## *Pictures from the Week*

I was able to stop by and visit James Rost at his Waubonsie Vineyard near Sidney, Iowa (SW Iowa) this Tuesday while attending a funeral in the area. A wind storm had just went through his vineyard causing some tree damage the night before. Prior to that, another wind storm blew his 3,000 gallon plastic tank over and rolled it approximately ½ mile away into the neighbors ditch. James and his wife Linda planted 2,000 vines in 2005. Deer have been a huge problem. Only 1,500 of the original Edelweiss, Vignoles, St. Croix, St. Vincent, and LaCrosse remain. James purchased an historic building in downtown Farragut, Iowa last year and is in the process of turning it into a winery.



James Rost standing in his Waubonsie vineyard. The vineyard is located right next to Waubonsie State Park in the Loess Hills of Iowa.



Bubblebee moth (*Helmarius diffinis*) found on wild grape (*Vitis riparia*). This clear wing moth is common in the U.S. It is a member of the Sphinx moth family and does not have a stinger. It is not considered a pest of grapes.



Used diapers placed on trellis post as a deer deterrent. James said they repelled the deer for about one week. Used diapers fermented in plastic bags for about the week seem to work the best! Sounds like a good idea for an organic research project. Any volunteers?



Irish Spring Soap used as a deer deterrent. It seemed to deter them for about one week until the deer became used to the smell.

## ***Entry Deadline for the Mid-American Wine Competition at DMACC is June 20***

The Mid-American Wine Competition (MAWC) has become the first competition in the United States to develop a food-wine pairing competition. In traditional competitions a judge will evaluate a series of wines of the same varietal. As such, the wine that differentiates itself from the group has higher alcohol, fruitier aromas, fuller body, etc. The result is that some very nice wines may get overshadowed by these 'powerhouses.' (Hence, perpetuating the New World wine making style.)

In the MAWC Food-Wine Pairing portion of the competition a wine will be evaluated based on its synergism with food. A chef from the Iowa Culinary Institute at DMACC has developed wine-friendly recipes. Wineries can submit a wine to be judged with one of the recipes, and leading wine industry professionals from across the United States will evaluate the pairings. Please take note, the number of entries for this portion of the competition is limited and a reservation is required. To place a reservation contact Bob Foster, Competition Director, at [winecompetition@dmacc.edu](mailto:winecompetition@dmacc.edu).

This new portion of the competition holds many benefits for the Midwest Grape and Wine Industry. The competition has brought national attention to Iowa and the Midwest in 'Wines and Vines' magazine as well as 'Wine Business Daily.' In addition, this will help involve commodity groups and restaurant associations across the Midwest. Hopefully, it will lead to restaurant acceptance of Midwest wines; after all, a group of Master Sommeliers (highest wine service qualification in the United States) will have already given an endorsement to the quality of the wine and the ability to pair with food.

The Food-Wine Pairing portion of the competition will be conducted in addition to the traditional wine competition. We look forward to tasting your entries! For more information on category listings, 2008 judges biographies, or results from 2007 please visit <http://www.dmacc.edu/ici/winecompetition.asp>. With specific questions please contact [winecompetition@dmacc.edu](mailto:winecompetition@dmacc.edu).

By Paul Gospodarczyk  
Enology Instructor  
Des Moines Area Community College

### ***Quote of the Week***

*“Wine is the most healthful and most hygienic of beverages.”*

*---Louis Pasteur*

### ***Neeto-Keeno WWW Stuff***

1. Premier Issue and homepage of *Virginia Wine Lover* magazine:  
<http://www.virginiawinelover.com/>
2. Check out Plantra's new *Bare Hand Bird Net* instructional video here. A nice short video with a lot of good information: <http://www.plantra.com/BareHandVideo.htm>

***Post & View Classified Ads Here: <http://iowawinegrowers.org>***

Past issues archived as html: <http://www.extension.iastate.edu/Wine/Resources/winegrowernews.htm>

Past issues archived as pdf: <http://www.extension.iastate.edu/ag/newsletters/winegrowers.html>

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