

## ***Wine-Grower-News #13***

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

August 3, 2007

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### ***Grapevine Aphids Showing Up***

A few calls are coming in from the drier areas of the state about aphids feeding on newly developed grape leaves. This is a common phenomenon this time of year. The aphids are Grapevine aphids (*Aphis illinoisensis*). After overwintering as eggs on Viburnum species of shrubs the young aphids move onto grapes early in the spring. Populations increase during dry weather conditions. The grapes leaves often have a sheen that is caused by a honeydew left from the insects sucking on the leaves or petioles.

Grapevine aphids seldom create economic damage to healthy vines. Predators like stink bugs, ladybird beetles and lacewings are often found feeding on aphid colonies.



***Grapevine Aphid Colony( top)***  
***Shiny Honeydew (bottom)***

1. Grapevine Aphid, Virginia Tech: <http://www.virginiafruit.ento.vt.edu/grapeaphid.html>

2. Grapevine Aphid, Ohio State Univ:

[http://www.oardc.ohio-state.edu/grapeipm/grapevine\\_aphid.htm](http://www.oardc.ohio-state.edu/grapeipm/grapevine_aphid.htm)

## ***WOW, WOW, WOW – EARLY, EARLY, EARLY HARVEST!***

I had the opportunity to hitch at ride with Wayne Peterson of Midwest Grower Supply this Thursday August 2<sup>nd</sup> to visit Les Bourgeois Winery near Rocheport, Missouri. We drove down together to attend the last of a series of “Tailgate” meetings being sponsored by the Institute for Continental Climate Viticulture & Enology at the University of Missouri in Columbia. Main point,... the light

crop and hot weather has really pushed grape maturities down there. Cory Bomgaars, winemaker and vineyard manager for Les Bourgeois was going to start harvesting Cayuga White on Monday, August 6<sup>th</sup>. I know of two wineries in Central Iowa who will start harvesting Edelweiss this weekend. Leon Millot in one Warren County vineyard was at 19 Brix on Thursday. Last week I mentioned that our grape harvest would be about 2-4 days earlier than normal. I now think that 5-7 days would be more like it.

1. Les Bourgeois Winery: <http://www.missouriwine.com/>
2. Midwest Grower Supply: <http://midwestgrowersupply.com/>
3. Institute for Continental Climate Viticulture & Enology: <http://iccve.missouri.edu/bmp/events.php>

### ***When are the Grapes Ripe?***

The optimum time to harvest grapes depends on the growing season, site, crop load, cultivar and intended use. The lighter the crop load, the quicker the ripening process. The timing of the harvest season will vary each year depending on environmental conditions. Soon after veraison (berries begin to turn color) and the ripening process begins. Acid content starts to go down, pH slowly rises, red grapes increase in color, white grapes turn translucent yellow to gold, sugar content goes up and aromatic and flavor compounds increase. Many wineries will provide detailed parameters for many of these values. The pH requirements are probably the most important for a winery because high pH's are difficult to correct. Sugar content (°Brix) and acidity can easily be amended. The generally accepted range of values for winegrapes at harvest would include:

- 18-24 °Brix for white grapes
- 21-26 °Brix for red grapes
- 14-16 °Brix for Edelweiss
- 14-18 °Brix for many of the Labrusca (American) table grape varieties that tend to degrade quickly at higher °Brix levels. Table grapes are often considered ready when the sugar/acid ratio reaches 15 or higher.
- Total acid contents of 0.6 to 1.0 grams/liter
- pH range of 3.0 -3.5

These parameters are all very important. But,... some winemakers are starting to put as much or more emphasis on taste, aromas and the presence of mature brown seeds to determine full maturity for harvesting. Still,... adverse weather, birds, bunch rots and access to harvest labor will often make for the final determination.

Sampling the crop 3-4 weeks ahead of the estimated harvest date and more often the final week up to harvest time is recommended. A sample size of 200 berries is considered the standard procedure. Make sure to take the same amount of berries from each side of the row. Make sure to sample different cultivars and different areas separately. Considerations when sampling:

- a. Sample the same time of day each time you sample.
- b. Do not sample end row vines or diseased vines.
- c. Sample both shaded and sunlit clusters
- d. Sample berries from top, middle and ends of clusters.
- e. Sample no more than 1 berry per cluster
- f. Set up a systematic sampling scheme to eliminate any bias in the sample.

Try to process the sample within 2 hrs of sampling and press all the juice from the grape pulp without cracking the seeds. Sampling only the free run juice will normally give a higher °Brix, higher total acid content and lower pH.

Equipment to test for °Brix, pH and total acidity are not that expensive. A good 0-32 °Brix temperature compensating hand held refractometer will run between \$75 to \$125.. A good hand held or portable pH meter with a resolution of 0.01 pH will cost between \$125 to \$335. Equipment to test total acidity can vary from test strip kits, titration kits or expensive electronic wine test meters. MDT and Associates [www.mdtgrow.com](http://www.mdtgrow.com) and Midwest Vineyard Supply [www.midwestvineyardsupply](http://www.midwestvineyardsupply) are two local Midwest vendors of this equipment. Many other vendors and types of equipment can be found by just Googling “wine testing equipment”.

Further resources for determining grape maturity and harvest timing:

1. Grape Sampling & Maturity Evaluation, Dr. Bruce Zoecklein, Virgin Tech:  
<http://www.fst.vt.edu/extension/enology/VC/Jan-Feb01.html>
2. Harvest Timing, p. 47 Colorado Grape Growers Guide:  
<http://www.colostate.edu/Programs/wcrc/Viticulture/GrapeGrowersGuide1998.pdf>
3. Harvest Timing, Midwest Grape Production Guide:  
<http://ohioline.osu.edu/b919/0016.html>
4. Harvest Mgt. Chap., Growing Grapes in Missouri:  
<http://mtngvr.missouristate.edu/Publications/grapeguide.pdf>
5. How to Judge Grape Ripeness Before Harvest, Ed Hellman, Texas A & M:  
<http://winegrapes.tamu.edu/grow/ripening.shtml>

### ***Only 2 More ISU Research Farm Viticulture Field Days Left***

Iowa State University has posted details and registration materials of the following viticulture field days on the ISU Viticulture home page here: <http://viticulture.hort.iastate.edu/events/events.html>

6-8PM, Tuesday, August 10, 2007, ISU Southeast Research Farm, Crawfordsville, IA  
<http://www.ag.iastate.edu/farms/southeast.php>

9:30AM – Noon, Wednesday, August 11, 2007, ISU Northeast Research Farm, Nashua, IA.  
<http://www.ag.iastate.edu/farms/northeast.php>

### ***ISU Midwest Institute Wine Lab Now Open For Business***



***Sebastian Donner***  
***Lab Manager***

Good news! The ISU Midwest Grape & Wine Industry Institute wine lab is now open for business. The lab is located in the Food Science Building on the ISU campus. The fully equipped lab will promptly get your wine analysis results back to you. The types of analysis and fees will include:

Analysis		\$ Fee
pH	Hydrogen Concentra	12
TA	Titratable Acidity	22
VA	Volatile Acidity	25
OH	Alcohol	20
TSS	Total Soluable Solids –Brix	20
MLF	Malolactic Fermentation	20

FSO2	Free Sulfur Dioxide	20
TSO2	Total Sulfur Dioxide	20

**Basic Analysis** = pH, TA, VA, OH, TSS, MLF, FSO2, TSO2 \$104

**Diagnostic Evaluation** = pH, TA VA, FSO2, TSO2 \$58  
Includes Free Sensory Evaluation - Limited Time Only.

The complete price sheet, order form and sampling & shipping instructions will be posted here:  
<http://www.extension.iastate.edu/Wine/lab.htm>

### ***Soil Quality is Key to Productivity***

You can have good soil fertility, plenty of moisture and plenty of sunlight and still not grow a good grape crop. Soil quality is also key to high productivity. Unfortunately many of our high production practices tend to reduce soil quality over time. Biological activity, pH, soil compaction, organic matter, aggregate stability, soil nitrates, electrical conductivity, soil slaking, water percolation, and water quality are just some of the major soil quality factors one can measure.

A soil quality test kit was developed in 1996 by the USDA Agriculture Research Service to help farmers and researchers have a quick way to test for 12 separate soil quality measurements. Instructions on how to build your own soil test kit, background information on how to use it and what the measurements mean can be found here: [http://soils.usda.gov/sqi/assessment/test\\_kit.html](http://soils.usda.gov/sqi/assessment/test_kit.html)

A pre-assembled soil quality test kit can also be purchased at Gemplers here for \$599:  
<http://www.gemplers.com/search.aspx?HKW=soil%20quality> You can also purchase from from the Murray, Iowa FFA chapter by e-mailing them here: [murrayffa@yahoo.com](mailto:murrayffa@yahoo.com)



***Craig Dilley, ISU graduate student discusses soil quality and the USDA Soil Quality Test Kit he uses to measure soil quality in vineyards at 7-28-07 ISU Viticulture Field Day on the Horticulture Research Farm north of Ames.***

## ***Everything You Need to Know About The Iowa Wine Industry***

- a. The Iowa Wine Growers Association: <http://www.iowawinegrowers.com/>
- b. ISU Viticulture Home page: <http://viticulture.hort.iastate.edu/home.html>
- c. ISU Midwest Grape & Wine Industry Institute: <http://www.extension.iastate.edu/Wine>
- d. Western Iowa Grape Growers Association: <http://www.westerniowagrapegrowers.org/>
- e. Loess Hills Flat River Wine Trail: <http://www.loesshillsflatriverwinetrail.com/>
- f. Iowa Wine Trail: <http://www.iowawinetrail.com>
- g. MakeMineWine Magazine: <http://www.makeminewinemagazine.com>
- h. Iowa Wine & Beer Promotion Board: <http://www.iowawineandbeer.com>
- i. Iowa Grape & Wine Development Commission:  
<http://www.agriculture.state.ia.us/grapeAndWine.htm>
- j. Iowa Alcohol Beverages Division: <http://www.iowaabd.com/>
- k. DMACC Viticulture & Enology Program: <http://www.dmacc.edu/programs/viticulture/>
- l. ISU Ag Marketing Resource Center: <http://www.agmrc.org>  
(put topic of interest in search box)
- m. VESTA "on-line" viticulture and enology junior college level courses: <http://www.vesta-usa.org/>

## ***“Rotundone” Discovered as Source of Peppery Taste in Shiraz***

The Shiraz grape has been around for thousands of years. The ancient Egyptian’s are known to have grown and made wine from Shiraz. Shiraz is well known for its peppery taste. A team of researchers working in a laboratory at the Wine Research Institute in Adelaide, Australia have discovered that the compound “rotundone” is what gives Shiraz its peppery taste. Research on this project started in 1999. The scientists kept the discovery a secret until securing a patent. Knowing what the compound is opens many doors as to how to manipulate it in the vineyard and winery. Read about it here:

1. “Shiraz Mystery Uncorked”, 8-1-07 Fairfax Digital:  
<http://www.theage.com.au/news/national/shiraz-mystery-uncorked/2007/07/31/1185647903687.html>
2. “Red Wine Pepper Compound Identified”, 8-1-07 Sidney Morning Herald:  
<http://www.smh.com.au/news/National/Red-wine-pepper-compound-identified/2007/08/01/1185647945526.html>

## ***TTB May Stop & Then Change AVA Petition Process***

The Alcohol, Tax and Trade Bureau (TTB) approves the formation of all American Viticultural Areas (AVA’s) within the U.S. The process of forming an AVA was developed in 1986. Since that time, 208 AVA’s have been approved in the U.S. Many of these AVA’s are sub-AVA’s located in prior approved AVA’s. Example – Napa Valley has 15 sub-AVA’s. The process is becoming more complicated with so many sub-AVA’s being formed. The TTB is considering halting the current AVA petitioning process. It will then take time to review and open for public comment any changes that should be made.

The process of petitioning the TTB to form an American Viticultural Area (AVA) can be found in the U.S. Code of Federal Regulations Title 27, Alcohol, Tobacco and Firearms, part 9. In short, it can take 10’s to 100’s of thousands of dollars to identify the area, form a consensus and plead your case as to why your new AVA should be approved. A petition needs to be made in writing to the administrator of the Alcohol, Tax and Trade Bureau, U.S. Department of Treasury. A period for public comment is then required. A single negative comment could cause the denial of an AVA petition. The petition needs to include the following information:



- a. Evidence that the name of the viticultural area is locally and/or nationally known as referring to the area specified in the application;
  - b. Historical or current evidence that the boundaries of the viticultural area are as specified in the application;
  - c. Evidence relating to the geographical features (climate, soil, elevation, physical features, etc.) which distinguish the viticultural features of the proposed area from surrounding areas;
  - d. The specific boundaries of the viticultural area, based on features which can be found on United States Geological Survey (U.S.G.S.) maps of the largest applicable scale; and
  - e. A copy of the appropriate U.S.G.S. map(s) with the boundaries prominently marked. (For U.S.G.S. maps, write the U.S. Geological Survey, Branch of Distribution, Box 25286, Federal Center, Denver, Colorado 80225. If the map name is not known, request a map index by State.)
1. "AVA Approvals Suspended", 8-1-07 – Wines & Vines:  
<http://winesandvines.com/template.cfm?section=news&content=49587>
  2. TTB Wine Appellations of Origin: <http://www.ttb.gov/appellation/index.shtml>
  3. AVA Application Process, Title 27 Alcohol, Tobacco and Firearms, U.S. Cod of Federal Regulations: [http://www.ttb.gov/wine/wine\\_regs.shtml](http://www.ttb.gov/wine/wine_regs.shtml)

### ***Alcohol Content, Nutritional Information and Serving Size on All Alcohol Labels?***

The Treasury Department is considering a new rule that would require companies to put alcohol content, serving sizes and nutritional information on all alcoholic drink packaging. The labels would also include a "serving facts" panel, which would list the number of calories, carbohydrates, fat and protein for a standard serving size. The department said in the proposal that it would make the information labels mandatory three years after a final rule is published. The push for a more comprehensive label began in 2003 when the Center for Science in the Public Interest, the National Consumers League and more than 70 other groups and companies — including Diageo — petitioned the bureau to change the regulation.

1. "U.S. May Require Detailed Alcohol Labels" 7-31-07, AP Wire:  
<http://www.onelocalnews.com/newhopecourier/stories/index.php?action=fullnews&id=141522>

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

1. Free The Grapes: <http://www.freethegrapes.org/>
2. "New" MO Grape Growers Homepage: <http://www.missourigrapegrowers.org/>

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

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