

# Washington State Grape Society

## April 2008 Newsletter

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### ARE YOU SUSTAINABLE?

Whether you like to use the buzz word of “sustainable” or not, we can all agree that we are striving for long term stability and viability of an individual operation as well as an industry. The question is do you have the knowledge, tools, and practices to achieve this goal?

Sustainability is often described in a three-pronged approach of economic, environmental, and social stewardship. In the past couple decades, organic and sustainable have been described synonymously. However, at this year’s 20<sup>th</sup> anniversary meeting for Sustainable Agriculture Research and Extension (SARE) there was a deliberate thought process and movement to separate the two terms. Organic may not be sustainable and sustainable does not have to be organic.

Sustainability has often focused on environmental effects, but economic viability and social stewardship are equally significant to the environment. Sustainable practices will vary by operation; however there are some powerful resources for grape growers to assess their practices.

USDA has compiled a set of resources for sustainable viticulture. For a complete list, search for “viticulture” on [afsic.nal.usda.gov](http://afsic.nal.usda.gov) or stop by the WSU extension office in Prosser. The following are a few highlights from their list:

- Sustainable Winegrowing Program  
*The Wine Institute*

<http://wineinstitute.org/initiatives/sustainablewinegrowing>

Provides articles, links, training opportunities and *The Code of Sustainable Winegrowing Practices Self-Assessment Workbook*.

- Vinewise  
*Washington Association of Wine Grape Growers*  
<http://www.vinewise.org>  
Checklists and self evaluation forms on a variety of sustainable viticulture and business practices

- Commodities and Products: Fruits  
*Agricultural Marketing Resource Center*  
<http://www.agmrc.org/agmrc/commodity/fruits/>  
A compilation of marketing and business information for a variety of fruit crops of interest to winemakers including grapes, tree fruit and berries. An overview of the wine industry in the US with more specific information by region is also available.

--Gwen Hoheisel

### TOOLS COMING YOUR WAY FROM THE WWIF

The Washington Wine Industry Foundation has been collaborating on a USDA-Risk Management grant to provide grower decision-making tool for grapes and tree fruit. Already numerous accomplishments have been achieved, but work will continue in three specific areas.

- 1.) Develop a Cost of Production for wineries
  - ✓ By size (small, medium, large)

- ✓ By color (red or white)
- ✓ By production method (conventional, organic, other)

## 2.) Develop a Vineyard Database Content Management System and Vineyard Database Interface

- ✓ Research how OVID can work with available technologies to provide an effective user experience; enabling effective Viticulture Management decisions.
- ✓ Develop a set of interactive and intuitive tools that provide decision aides via the Web, telephone, email, Text Messaging, and RSS.
- ✓ Aggregate and disseminate crop and harvest projections.

## 3.) Develop AgWeatherNet Templates

- ✓ Develop intuitive and interactive web-based forecasting and risk assessment model interfaces and "push" technologies to assist weather-driven (using AgWeatherNet) decision aids to manage risks associated with grape production.

## ***DID YOU SEE BRONZED LEAVES LAST SUMMER?***



Mid to late summer growers may have notice bronze colored leaves. This can be indicative of rust mite populations that exceed 100+ mites per leaf.

Treatment in the summer is not effective since most of the mites have already taken refuge under the vine trunk.

If you noticed bronzed leaves last year this spring is the time to treat. Research is currently being conducted for control methods in the Northwest, but since this is a new problem to this region control measures are being adopted from Australia where these mites have been a problem for numerous years. Dr. David James, the WSU researcher working on this problem, currently recommends a sulfur spray when the temperatures have been above 60°F and a Chardonnay vine is at the woolly bud stage or when a Cabernet Sauvignon vine is at bud swell. A sulfur spray can be used to control bud mites when temperatures have been above 60°F and

the vines are at bud burst to 7 days after bud burst. The rate of sulfur should be about 4-4.5 pounds per 100 gallons of water. So far, higher rates do not improve control. One very important point to keep in mind is that control measures should not be taken unless you saw damage from mites. Low levels of herbaceous mites provide food for generalist predatory mites which also control other problematic mites, like the spider mite.

--Gwen Hoheisel

## ***GRAPE LEAF ROLL VIRUS THE PROBLEM...***

Grape leaf roll virus (GLRV) accounts for about 60% of the production losses of grapes worldwide, according to Naidu Rayapati, Washington State University grape virologist. Worldwide, nine viruses are associated with the disease. In a 2000 survey of Washington vineyards, four viruses associated with the disease were detected. However, in recent years Dr. Rayapati's work has detected six strains of GLRV in the state.

The disease can delay ripening, cut yields as much as 50 percent and have a major impact on fruit quality. Once infected, vines cannot be treated. The disease can be eradicated only by pulling the vines.



Pinot Noir

Symptoms don't materialize until late summer. The leaves of red grape varieties turn red with the principal veins in the leaves remaining green. Symptoms are less pronounced in

white grapes, evidenced by a slight yellowing and cupping of the leaves. Concord grapes may show no symptoms, but lack of symptoms does not mean the virus is not present.

However, visible symptoms can also be confused with herbicide damage and zinc deficiencies.



Riesling

The only way to confirm the presence of the virus is through laboratory testing currently available at the WSU-IAREC. Dr. Rayapati and his staff tests plant

samples for viruses. Costs start at about \$8 per virus per sample. Results are confidential.

GLRV is spread through planting infected vines, grafting of infected material, the grape mealybug.  
--Dennis Brown

### ***GRAPE LEAF ROLL VIRUS WORKING TOWARD A SOLUTION....***

A team of research and extension faculty has been awarded a grant from WSU to raise awareness and find solutions for viral and fungal diseases affecting grapes and other small fruits in Washington State. The team includes WSU scientists and extension faculty in Pullman, Prosser, Puyallup, and Mount Vernon, a Washington wine grape grower, plus collaborators at the University of Idaho and USDA-Agricultural Research Service in Corvallis, Ore.

The long term goal of the project is to promote healthy growth of the state's wine grape and small fruit industries by being the primary resource for contemporary, science-based information on diseases of wine grapes and small fruits and their management. Multidisciplinary research is often the most effective approach to develop solutions to complex problems in agricultural production systems.

During the first year of this two-year project, the primary focus will be on GLRV and other virus diseases of wine grapes, however, the team will also focus on diseases and viruses of blueberries, raspberries and strawberries.

In early March, a small group of wine grape growers, certified nurserymen, representatives from the Washington, Oregon and Idaho state departments of agriculture and WSU faculty gathered in Prosser to grapple with the problem and solutions to GLRV. One grower at the meeting said he is testing representative samples of cuttings from his own block that appear to be virus free. Because of the cost of testing, he is testing for grape leaf roll associated virus 3, which has always been found when the disease has been diagnosed.

As a temporary course of action, Dr. Rayapati, the WSU grape virologist, endorses this approach. "As long as it looks logical and reasonable, we should promote it as a short term strategy until there is enough certified material that can meet the demand. If growers buy certified material from other states, WSGS Newsletter, April 2008

they should determine what viruses have been tested. Not all certified material is tested for the same viruses

Grape leaf roll virus is not a disaster. The problem has been with us a couple decades. It is something we need to learn to manage and mitigate.

More information is available on the Web at <http://winegrapes.wsu.edu/virology/> Also look for an upcoming GLRV publication available at <http://pubs.wsu.edu>

--Dennis Brown

### ***CONCORD RESEARCH MOVING IN THE RIGHT DIRECTION***

The Washington State Concord Grape Research Council funded the establishment of a new, drip-irrigated Concord research vineyard planted in 2003 and 2004 at the WSU-IAREC. The vineyard is now sufficiently established to be used for field trials. Studies are currently underway on investigating the physiological basis for chlorosis, rootstock and varieties evaluations, planting densities, and mechanized/minimal pruning. Look for updates and results from these studies coming to growers over the next few years.

### ***WILL HEALTHY JUICE PROMOTE SALES?***

Grape juice is getting a lot of publicity for its healthy benefits. March 17, 2007 ABC News reports on a grape juice-industry-funded study that finds they may help prevent Alzheimer's and heart disease. According to a new study by scientists at the University of Glasgow in Scotland, purple grape juice is now your best bet for preventing heart disease, Alzheimer's disease and a host of other chronic ailments. A group of French scientists have found that Concord grapes are shown to stimulate nitric oxide production, which relaxes arteries and is associated with a healthy blood pressure. The effects seen in concord juice are very similar to those seen in red wine, which numerous studies suggest that a glass of red wine a day is good for the heart.

The competition is on for wallet of the health conscious consumer. Americans drink half the world's orange juice -- 21 quarts per person each year. Most of them do so because of reasons

connected to taste and to the perceived health benefits of a glass of O.J. every day. The UK's leading retailer for pomegranate juice, Tesco, has reported that sales of its pomegranate juice increased by 300% after news stories started in 2005 about the health benefits. Blueberry sales are also booming with a 150% increase in sales. Welch's has a heart healthy campaign to educate consumers about grape juice. Hopefully, the sales in the next few years will mimic other markets.

## ***WHAT'S HAPPENING AT WSU?!***

### ***Search for New Director of WSU Irrigated Agriculture Research and Extension Center***

A nationwide search is underway for a new director of WSU-IAREC. Dr. Robert Stevens has been the interim director for 3 years, but will be retiring later this year. A search committee comprised of industry and university faculty will be reviewing applicants by May 1. To view the position description, go to

<http://www.hrs.wsu.edu/employment/FAPvacancies.aspx?id=2747>

### ***Vine to Wine***

April 12-13: WSU Extension presents a 2-day workshop on viticulture and enology. This is an ideal workshop for those that are thinking of starting a vineyard or winery, or those that have a recently entered the industry. By the end of this workshop, the potential grower/winemaker will have a better understanding of implementing sustainable production practices to produce high quality grapes and wine. Washington already has a highly favorable reputation for premium quality grapes and wines. We want to ensure that new industry members have the knowledge to maintain, if not bolster this reputation and to be successful at their endeavors.

**Thanks to our sponsor**



For more information or to register:  
Meet leaders in the industry, enjoy complimentary snacks, catered hot lunch and an electronic proceeding.  
Registration Cost: \$150.00 one day, \$250 two days

Pre-registration required and seats are limited  
WSU-IAREC  
24106 N Bunn Road, Prosser, WA 99350  
(509) 786-9226  
Visit this website:  
<http://winegrapes.wsu.edu/workshop.html>

### ***John Gardner visits Prosser***

Dr. John Gardner, the newly appointed Vice President for Economic Development and WSU Extension, was the keynote speaker at the recent Prosser Economic Development Association's meeting. He presented an uplifting discussion of Washington's economic growth and the role WSU will play. Dr. Gardner highlighted the growing research in alternative fuels. "It's easy to imagine and relatively close that everyone will have electric vehicles, but it isn't easy to imagine a jumbo jet that plugs-in." Dr. Gardner spoke of the recent collaboration with Pacific Northwest National Laboratory to hire of a scientist who will work to develop a more energy efficient jet fuel. Dr. Gardner also spoke of the commitment from WSU to agriculture and extension. WSU is working toward innovative ways to solve agricultural issues.

Dr. John Gardner came to WSU in 2008 after this position was created by the new president, Dr. Elson Floyd. Dr. Gardner resides in Seattle, but obviously is engaged in many areas of the state.

### ***Want updates on the latest research...***

Join us for the WSU Grape Fieldman's Breakfast on the first Thursday of the month at The Barn in Prosser. Breakfast starts 7:15am, followed by a round table discussion, and a speaker.

The breakfast is a meeting place for growers, consultants, industry, and university faculty to share experiences and gain knowledge. We start early and end early to get you back in the vineyard.

Contact Gwen Hoheisel if you would like to be placed on the mailing list for reminders or have any special needs. 509-786-5609 or [ghoheisel@wsu.edu](mailto:ghoheisel@wsu.edu)

*2007 topics and some to come in 2008.....*

Cold hardiness

Pests, pesticides, and their efficacy

Disease management

Grape viruses  
 Irrigation updates and annual water supply  
 Automated crop monitoring and yield estimation  
 Nutrient management: a 3 part series  
 New WSU concord research block & studies  
 Computer management tools for growers

**The Perfect Partnership**

WSU and the Walt Clore Culinary Center have formally joined forces. Dr. Mercy Olmstead, WSU Extension Viticulturist and Dr. Markus Keller, WSU horticulturists are leading the educational exhibits with the center. The Clore Center will serve as an agritourism destination to educate about food, wine, and the history of agriculture in the area.

***EQUIP DEADLINE IS JULY 15***

The Environmental Quality Incentives Program (EQIP) is a voluntary, cost-share assistance program that helps conservation practices including those aimed at helping farmers improve irrigation efficiency; manage nutrient run-off and/or animal waste; improve the health of native plant communities; and reduce soil loss. In most instances, producers who participate in the program pay for roughly half of the costs of the conservation measures or practices.

In 2006 and 2007, Washington agricultural producers qualified for more than \$30 million in financial assistance through the program, according to the NRCS. The new application ranking cut-off date represents an on-going agency effort to provide landowners and conservation planners additional time to develop more comprehensive conservation plans for implementing the various practices and activities funded through the program. Prospective applicants are encouraged to contact their local NRCS office as soon as possible to ensure eligibility and to begin the application process.

***DATES TO REMEMBER AND THINGS TO LOOK FORWARD TO:***

April 3 Grape Fieldman’s Breakfast at The Barn in Prosser – Dr. Markus Keller  
 April 12-13 Vine to Wine at WSU-IAREC  
<http://winegrapes.wsu.edu/workshop.html>

April 18-19 Women and Agriculture Conference  
[www.ncw.wsu.edu/family/womenag.htm](http://www.ncw.wsu.edu/family/womenag.htm)  
 May 1 Grape Fieldman’s Breakfast at The Barn in Prosser – Dr. Gary Grove  
 July 27-29 Riesling Rendezvous at Chateau St. Michelle Winery  
[www.rieslingrendezvous.com](http://www.rieslingrendezvous.com)

***COLD HARDINESS....***

As of April 2, 2008, these are the critical temperatures for grapes. This WSU service is provided through the winter and is available at <http://winegrapes.wsu.edu/frigid.html>

Be sure to check this website to see how cold hardiness changes during bud swell.

Date	Variety	BUD10 °F	BUD50 °F	BUD90 °F	PHL10 °F	XYL10 °F
Mar26	<a href="#">Cabernet Sauvignon</a>	+5	0	-4	+7	0
Mar27	<a href="#">Merlot</a>	+2	0	-4	+12	+8
Apr 1	<a href="#">Malbec</a>	+2	0	-6	+13	+9
Apr 1	<a href="#">Syrah</a>	0	-3	-7	+10	+6
Mar 31	<a href="#">Lemberger</a>	0	-3	-6	+9	+4
Mar 27	<a href="#">Riesling</a>	+1	-5	-7	+12	+2
Mar31	<a href="#">Gewürztraminer</a>	-2	-5	-7	+11	+1
Mar24	<a href="#">Pinot Gris</a>	+2	-3	-5	+13	+6
Mar 26	<a href="#">Chardonnay</a>	+11	+7	+3	+16	+8
Mar 31	<a href="#">Semillon</a>	0	-3	-7	+14	+6
Mar 31	<a href="#">Chenin blanc</a>	0	-2	-5	+13	+7
Mar 24	<a href="#">Viognier</a>	+7	+2	-3	+9	-1
Mar 27	<a href="#">Concord</a>	+6	+4	+1	+6	-6
Mar 27	<a href="#">Sunbelt</a>	+9	+7	+4	+9	-4

***Washington State Grape Society***

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