



Vine to Wine Update

Oregon Wine Research Institute
June 2016

Welcome to the *Vine to Wine Update*. This monthly e-newsletter is designed to inform you of news, information and events from the **Oregon Wine Research Institute**, highlighting our research programs and providing relevant information about the OWRI and our researchers. We continue to provide research-based viticulture and enology information for the Oregon wine industry. As always, we welcome industry input, so please ask **OWRI team members** questions from the vineyard or the cellar.

Considerations in the Timing and Application of Leaf Removal

Dr. Patty Skinkis, Viticulture Extension Specialist & Associate Professor, OSU

Canopy management, including hedging, leaf and lateral removal, is of paramount importance at this time of year. These practices can change canopy microclimate and thereby influence how fruit develops and how well your fungicides are deposited to control powdery mildew and Botrytis bunch rot. It is important to consider how and when to apply these practices. If canopy management tasks are not done at the correct time, there may be issues that arise. Below are some important considerations with regard to leaf removal, one of the more queried practices in canopy management.

Leaf removal in the cluster zone is an important practice for vineyards with moderate to high vine vigor. Leaves should be removed between fruit set and bunch closure. I often receive reports of berry sunburn due to leaf removal, and in many cases, this was the result of leaf removal at or just prior to véraison. The cluster is relatively resistant to sun exposure in earlier stages of development from bloom to bunch closure. However, once berries begin to ripen (near véraison), the cells of the berry skin become less able to withstand high sun and heat exposure. Studies show that clusters with earlier exposure have more phenolics that likely help prevent damage from exposure.

To continue reading this article, click [here](#).

Assistant Professor Joins OWRI Team at the Southern Oregon Research and Extension Center

The Oregon Wine Research Institute is pleased to announce that Alexander Levin will be joining the OSU Department of Horticulture as Assistant Professor of Viticulture in early fall, 2016. He will be based at the Southern Oregon Research and Extension Center in Central Point.

Dr. Levin completed his Ph.D. degree in horticulture and agronomy at UC Davis under Drs. Mark Matthews and Larry Williams. Prior to pursuing a Ph.D., Alexander completed a bachelor's degree in psychology at University of Michigan. He gained hands-on experience in the wine industry while working in Napa Valley, CA as a harvest intern, and at Beringer Vineyards in St. Helena, CA. His primary research interests include investigating genetic differences on drought response between cultivars, evaluating plant water status, leaf conductance and vegetative growth, and the development of deficit irrigation regimes to optimize production goals. He conducted a multi-year field study investigating vine performance of 17 red winegrape cultivars under deficit irrigation.

Alexander's future research and Extension plans include working with grape growers to identify appropriate management practices, developing suitable irrigation practices for the region, and utilizing field data to optimize grape and wine quality. He also looks forward to collaborating with other researchers, Extension specialists, grape growers, and stakeholders to further develop the Southern Oregon grape and wine industry using effective management practices.

For more information, please contact: Richard Roseberg, Director- Southern Oregon Research & Ext. Center. Phone: 541-772-5165, email: richard.roseberg@oregonstate.edu.

Viticulture Extension Update: Raising Trunk Disease Awareness

Dr. Patty Skinkis, Viticulture Extension Specialist & Associate Professor

There has been an increase in the number of reported cases of stunted vine growth and potential trunk disease this spring in the Willamette Valley. The symptoms ranged from delayed bud break to lagging shoot growth compared to healthy blocks, and in some cases led to shoots with distorted and almost tattered-looking leaves. The symptoms looked different than the typical culprits of herbicide drift, frost damage, rust/bud mite feeding, or micronutrient deficiency. Upon closer inspection by sawing into cordons and trunks, significant cankers (dead areas within the vine trunk) were found, and this suggested the potential cause of the limited shoot growth. Although visual symptoms suggested trunk disease, samples were submitted to OSU Plant Clinic to confirm which disease organisms may be causing the damage.

Knowing what trunk disease organisms are present is helpful in understanding next steps for managing the disease. Dr. Melodie Putnam, OSU Plant Clinic Director, summarized the importance of identifying the disease-causing organisms and provides visual examples of trunk disease symptoms in a seminar archived online [here](#). Trunk disease has become more of a "hot topic" in recent years both nationally and internationally. In 2015, Dr. Jose Urbez Torres visited OSU and growers in the north Willamette Valley and southern Oregon to share his expertise and research about trunk diseases in California and British Columbia. His archived seminar is available online [here](#). Research on trunk diseases of grapevines is currently being led by Dr. Kendra Baumgartner, a USDA-ARS plant pathologist from Davis, CA. The work is funded by a federal grant and is aimed at understanding both basic and applied aspects of managing trunk diseases in grapevines and other tree fruit and nut crops. You can learn more about the research [here](#).

Grapevine trunk diseases don't lead to immediate vine decline. The vine symptoms that are being expressed this spring are likely due to infection years ago, and the vineyards are just now showing the symptoms due to some prior vine stress. The two record breaking yield and heat/drought vintages of 2014 and 2015 may have led to more nutrient and/or water stress that could lead to poor nutrient or carbohydrate storages for early spring growth. The research team on the federal trunk disease grant are working to understand how **water stress** impacts the disease.

Please see the links below for more information.

- [Do you have trunk disease?](#)
- [SCRI Trunk Disease Project Website](#)
- [Recognize the Symptoms and Causes of Stunted Growth in Vineyards](#)

OWRI Research on Leaf Removal Featured in Practical Winery & Vineyard

An article featuring the research of Dr. Michael Qian, Professor and Dr. Patty Skinkis, Viticultural Extension Specialist & Associate Professor, on leaf removal is featured in the 2016 edition of *Practical Winery and Vineyard*. This article discusses a project conducted by the researchers on the deliberate removal of selected leaves around grape clusters. This practice is widely used in the vineyards of the PNW to improve air circulation and sunlight exposure as well as decrease disease pressure. The article also discusses the chemical composition of grapes as a result of this experiment. To read the article in full, click [here](#).

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2016 Pest Management Guide for Wine Grapes Available

This publication reviews the growth stages of grapes. For each growth stage (or group of growth stages), the document lists the more effective pesticides used to control insects, weeds, and disease, their rates, and application timing for Oregon grape growers. It also covers the effectiveness of various fungicides for control of grape diseases; strategies for controlling powdery mildew, botrytis bunch rot, and spider mites; methods of controlling vertebrate pests and weeds in vineyards; and resources for organic growers. It also includes a vineyard airblast sprayer calibration worksheet.

To access this publication, follow the link below:

https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em8413_3.pdf

New Extension Publication Available

PNW 533, Fertilizing with Manure and Other Organic Amendments

Are you thinking about using manure to fertilize your farm but want more information? Properly managed manure applications recycle nutrients to crops, improve soil quality, and protect water quality. From deciding whether manure is right for your farm to learning how to calibrate manure applications, this publication takes you through the process of fertilizing with manure and other organic amendments.

To access the publication, follow this link:

<http://cru.cahe.wsu.edu/CEPublications/PNW533/PNW533.pdf>

Summer OWRI Events

OWRI Seminar-Berry Sensory Assessment: A Valuable Tool in Grape and Wine Production

Sandra Milena Olarte Mantilla, PhD Candidate; The University of Adelaide School of Agriculture, Food and Wine

Friday, July 8, 10:00 AM

Kidder 202 (For directions, click [here](#)).

Berry sensory assessment (BSA) is a tool that can be used to assist in the evaluation of grape quality, however little published information exists on BSA characteristics of established grape cultivars. Dr Olarte Mantilla will present and discuss in this seminar the results of her PhD research on BSA at the University of Adelaide. Her PhD research focused on identifying relationships between berry and wine sensory assessment. Dr. Olarte Mantilla will also present the current status of research incorporating BSA as tool for evaluation of viticulture practices.

To view live online, visit: <http://live.oregonstate.edu/>.

Live chat will NOT be available, however, online live participants can submit questions during the seminar to Mark Chien at mark.chien@oregonstate.edu, and they will be answered at the end.

LIVE/OWRI Field Day

Join us for this half-day workshop at Stoller Vineyards on Thursday, August 4. This module-style workshop presents three topics, each 45 minutes long.

Date: Thursday, August 4

Time: Registration begins at 9:00 AM, the event begins at 9:30 AM

Location: Stoller Vineyards, 16161 NE McDougall Rd, Dayton, OR 97114

Price: This event is free of charge

To register, click [here](#).

Schedule

Module 1-3 9:30 AM - 10:15 AM

Rotate

Module 1-3: 10:30 AM - 11:15 AM

Rotate

Module 1-3: 11:30 AM - 12:15 PM

Module 1 - How to monitor vine water stress

Patty Skinkis, Viticulture Extension Specialist & Associate Professor

Knowing how to best manage irrigation is critical for the health and productivity of grapevines. One important component of irrigation management is knowing when to irrigate, and this can be determined by measures of vine water status. This module will inform you of the different methods by which to measure vine water stress, sampling procedures, and how to interpret the data. This will include a demonstration of a pressure chamber and a porometer.

Module 2 - Managing wildlife in the vineyard and using birds of prey as pest control

Dana Sanchez, Associate Professor, Extension Wildlife Specialist

Pest control can be a significant challenge in vineyards and birds are a significant contributor to grape damage. Aside from traditional methods of cannons, sounds and guns, birds of prey can also play a role in managing pest birds. This module will discuss ways to encourage birds of prey to take residence on your vineyard and assist in pest management.

Module 3- Total Worker Health (TWH) Intervention

W. Kent Anger, PhD, Senior Scientist & Associate Director, Applied Research Oregon Institute of Occupational Health Sciences

A Total Worker Health (TWH) intervention aimed at building a sustainable and productive workforce will assesses stress and personal health in farmworkers using standardized surveys that have been pilot-tested in orchard workers in Hood River. The training intervention are available in Spanish and English. The personal health portion of the intervention program is designed to be conducted by the workers with our support and oversight. Results from previous use of program elements will be described. Listeners can sign up their vineyard to participate in the program. After initial testing, a toolkit will be made available to participating vineyards at no cost for 2 years.



Have a particular topic or question you would like to see addressed in the Vine to Wine? Let us know.

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