



## Vine to Wine

Oregon Wine Research Institute

March 2017

Welcome to the *Vine to Wine*. 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.



Two recent events highlight how research and education, no matter where it originates, can improve the quality and sustainability of Oregon wines. They also show how OWRI helps facilitate the collaboration among different groups and institutions to improve grape production in Oregon.

The Rogue Valley Winegrowers Association has taken ownership of viticulture education in the southern Oregon region. In cooperation with Dr. Alexander Levin, research viticulturist at the OSU Southern Oregon Research and Extension Center (SOREC) the third annual Southern Oregon Viticulture Symposium attracted a stellar cast of speakers that would normally be found at international conferences. Together the RVWA, OWRI and OSU brought a wealth of research knowledge about grapevine red blotch disease, irrigation management and viticulture. This event was a fine example of OWRI's and OSU's commitment to a growing sector of the Oregon wine industry, and showcased how the industry can leverage university resources to help itself grow.

When growers reported powdery mildew outbreaks not responding to control practices, Dr. Walt Mahaffee and his team fanned out across the state to take samples and concluded that powdery mildew resistance to some fungicides has developed. If not addressed by growers, control failures are likely to become a more common occurrence in the coming years. A recent OWB research bulletin about fungicide resistance elicited significant response from growers, so OWRI has released the fungicide resistance information in this newsletter, and a topical webinar on March 28 (see announcement).

Both of these efforts demonstrate how collaboration between institutions can be leveraged into applied research and extension education efforts that address emerging problems utilizing ongoing fundamental research. This response process of applied research and outreach rewards practitioners with knowledge and recommendations that help them to succeed on their farm and in their business.

Mark Chien  
Program Coordinator

### Oregon Wine Research Institute Events

#### Fungicide Resistance Webinar

March 28, 2017 12:00 - 1:00 PM

Presenters: Drs. Walt Mahaffee and Jay Pscheidt

In 2015, we received a number of reports of powdery mildew not responding to FRAC 11 fungicide applications (Abound, Flint, Sovran). Samples from these vineyards had *E. necator* isolated that were resistance to both FRAC 11 and FRAC 3 fungicides (Tebucon, Procure, Rally, Vintage, Inspire Super). Further surveys of the Willamette Valley, Southern Oregon, and Hood River, indicated that greater than 80% of vineyards had *E. necator* populations with both FRAC 3 and FRAC 11 resistance population. In 2016, there were several control failures in vineyards that were again shown to be associated with *E. necator* populations resistant to both FRAC 3 and FRAC 11 fungicides. These data indicate these fungicide groups may not be managing grape powdery mildew as well as expected.

A recent OWB research bulletin alerted growers about this potential problem and many have expressed concern and the need for more information and recommendations. In order to provide these, OWRI is presenting an information and Q&A webinar with [Dr. Walt Mahaffee](#), research plant pathologist at the USDA Agriculture Research Service horticulture unit in Corvallis; and [Dr. Jay Pscheidt](#), OSU extension plant pathology specialist. Together they will provide research background on powdery mildew resistance, recommendations, and answer questions from webinar participants.

Join the webinar by using the link below and signing in as a guest.

<http://connectpro30832901.adobeconnect.com/fungicideresistance/>

There is no advanced registration required. This webinar will be recorded and made available on the OWRI website.

If you have questions, please contact Denise Dewey at 541-737-3620 or [denise.dewey@oregonstate.edu](mailto:denise.dewey@oregonstate.edu)

### **2017 Grape Day**

April 6, 2017 8:30 AM to 3:30 PM

Oregon State University, Corvallis, Oregon

Join us on campus for our annual event highlighting research relevant to the Oregon Wine Industry. This year we are focusing on management of trunk disease, grapevine viruses, and fungicide resistance. Registration is \$65 and includes lunch and a research abstract booklet. For registration, a full program and speaker information, please register [here](#). Registration deadline is Friday, March 31st.

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## ***Botrytis* Fungicide Resistance in the PNW**

*Jay W. Pscheidt, Professor & Extension Plant Pathology Specialist, OSU*

You may have heard a lot about grape powdery mildew resistance to fungicides in Oregon but maybe not a lot about *Botrytis*. As you plan your bunch rot applications for the coming season, I wanted to share recent *Botrytis* fungicide resistance information. This article will summarize important resistance testing published by Saito et al 2016 and unpublished information from the laboratories of Drs. Peever (WSU) and Stockwell (USDA-ARS).

Most of this data was generated by collecting *Botrytis cinerea* from diseased small fruit crops such as blackberry, blueberry, raspberry and strawberry. Although these fungal isolates are not from grape, they are the same pathogen that is involved with bunch rot of grape. These crops were grown in California and northern Washington as well as Oregon. (Continue reading the article [here](#)).

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## **Powdery Mildew Problems? Fungicide Resistance and Lime Sulfur Use**

*Walt Mahaffee, USDA-ARS Horticulture Crop Research Unit, Corvallis, OR*

### **Fungicide Resistance**

Did you have a bad mildew year in 2016? You know you sprayed at the right time, good coverage, best materials, etc. Did you use products that contained strobilurins (FRAC group 11 such as Flint, Abound, or Sovran) or demethylase or sterol biosynthesis inhibitors (FRAC group 3 such as Rally, Elite, Toledo)? The cause could be that you have powdery mildew that is resistant to some or all of these fungicides.

My group in collaboration with Tim Miles at California State University, Monterey Bay, has documented several powdery mildew control failures in the Willamette Valley, Southern Oregon, and California in 2015 and 2016. (Continue reading the article [here](#)).

## **Recruiting New Industry Collaborators for the OSU Statewide Crop Load Research Project - 2017**

Dr. Patty Skinkis, Viticulture Extension Specialist, is recruiting new vineyard and winery partners in the project during 2017. If you produce Pinot noir or Chardonnay in Oregon and are interested in joining this multi-year collaborative project, read more [here](#).

## **The Benefits to Wine of Food Industry Fermentation Sciences Funding**

*Mark L. Chien*

The concept of the Oregon Wine Research Institute was created by visionary wine industry leaders who approached the College of Agricultural Sciences with a proposal for an institute focused on grape, wine and business research. \$2M was raised by the wine industry as seed money for OWRI. In 2012, food industry leaders, including key individuals in the wine industry, successfully lobbied the Oregon legislature for \$2.5M in fermentation sciences funds, which arrived in two allocations to OSU. Beer, dairy and distillation programs at OSU are also beneficiaries of this state support. OWRI used its portion of these funds to create two faculty research assistant positions, one in enology and the other in viticulture. Nadine Skillingstad works with Dr. James Osborne in support of the research winery and wine production, and also with Dr. Elizabeth Tomasino's sensory analysis programs, which is the area of her training. Josh Price was hired as the assistant vineyard manager of the Woodhall research vineyard and is well known to OWRI faculty. He was the student manager at Woodhall for two years before he graduated and was hired full-time. Many of you have met Nadine at sensory panel tastings, and we hope you'll see more of Josh at industry events hosted at Woodhall. These two positions greatly expand the ability of James and Elizabeth to perform their research, and achieve results that will help the wine industry. OWRI is very grateful to the wine industry for its advocacy and support. The following are descriptions of their work and impact in their own words.

### **Making and Sensing Wine at OSU**

*Nadine Skillingstad, FRA, Department of Food Science and Technology, OSU*



"One of the things I love about my job is the variety of people I get to work with!" says Nadine Skillingstad, OWRI Enology Faculty Research Assistant at Oregon State University. Nadine has been with the Oregon Wine Research Institute for about 2 ½ years, and says she also enjoys the diverse activities and projects her work involves. She has a background in sensory analysis and product development, and earned bachelors and master's degrees in Food Science from OSU and University of Wisconsin, respectively.

"My work involves supporting OSU Food Science and Technology faculty members, James Osborne and Elizabeth Tomasino. They are involved in a variety of enology research projects aimed at helping the Oregon wine industry continue to produce world class wines. (Continue reading the article [here](#)).

### **OSU Woodhall Research Vineyard: A Multifaceted Vineyard**



The Woodhall Research Vineyard, located about 30 miles south of Corvallis in the coast range foothills near Alpine, is Oregon State University's viticulture and enology research vineyard. It was donated to OSU in 1987 by the Baines Family. While it serves many functions, Woodhall Research Vineyard is often a starting point for vine to wine research at the Oregon Wine Research Institute. Grapes that are not used for research are sold to a commercial winery and the revenue is used to support the vineyard. In addition to research, Woodhall also serves a vital role as a teaching vineyard where students can gain practical experience.

I worked as a student worker from 2013 until my graduation from OSU with a degree in horticulture with a viticulture and enology focus in 2015. I began work as the assistant vineyard manager in February, 2016 under the supervision of long-time, Horticulture Farms Manager Scott Robbins. (Continue reading the article [here](#)).

## Resources

### **2017 Pest Management Guide for Wine Grapes in Oregon now available through OSU Extension!**

This guide is co-authored by viticulture, horticulture and pathology extension faculty at Oregon State University and updated annually. It provides chemical and cultural control information for insects, weeds, and diseases based on grapevine phenology (growth stages throughout the year). Updated information from fungicide efficacy trials is included as well as other resources and an air blast sprayer calibration worksheet. Link: <https://catalog.extension.oregonstate.edu/em8413>

### **Slow growth in your vineyard? OSU Extension guide and app available to walk you through symptoms**

[Recognize the Symptoms and Causes of Stunted Growth in Vineyards](#), is an open-access publication and app produced by OSU Extension faculty to assist you with diagnosing problems in your vineyards. Spring frost, herbicide drift, water or nutrient stress, diseases, and insect and mite pests can cause similar symptoms of stunting or distorted growth in grapevines. Recognizing the symptoms and distinguishing their causes is the first step in diagnosing problems and developing a management plan. With many color photos, this publication will help you identify probable causes of distorted shoot and vine growth in vineyards and direct you to other resources that can lead to solutions.

### **Help Reduce Herbicide Drift from Neighbors**

The OSU Extension publication, [Are your Weed-control Products Damaging Nearby Vineyards?](#), is a brief informational guide written in layperson's terms for anyone living near a vineyard to understand the damaging effects that common herbicides can have on grapevines. Be sure to share this document with your neighbors!

### [Worker Protection Standards Regulation Changes Take Effect January 2017](#)

## Continuing Education

### **Vineyard Management and Wine Business Workshops Available Spring 2017**

Chemeketa Community College's Wine Studies Program has a series of workshops scheduled on topics ranging from developing an organic spray program to wine business. Some workshops are offered more for the beginner while others cover more advanced topics. To learn more about the workshops and register, click [here](#).

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

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