



Vine to Wine Update

Oregon Wine Research Institute

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.

OWRI Updates

Woodhall Update

July and August were busy at Woodhall Vineyard with vineyard maintenance, harvest preparations and continued infrastructure improvements. Josh Price, assistant vineyard manager, managed vine growth with the hedger and leaf puller donated by the Erath Family Foundation. E.D. Hughes Excavating dug a trench for installation of the upgraded power and phone lines in order to accommodate future teaching and research needs and the storage barn was disassembled for construction of an upgraded structure. The wood siding and batons will be reused around the property.

Harvest Update

The 2016 harvest was the earliest start on record in the Willamette Valley. The warm late-August weather accelerated grape ripening. Researchers began a rigorous schedule of sampling and picking grapes in late August and continued into September, harvesting grapes from research plots in commercial vineyards throughout the valley and at OSU research vineyards. This year was the earliest harvest in the five years Dr. Skinkis has been conducting the Statewide Crop Load Project, with harvest finishing on September 30.

Members of the OSU Vitis Club, a student group of viticulture and enology students, harvested grapes at Woodhall for Spindrift Wine Cellars. Club members picked chardonnay and pinot blanc grapes, allowing Spindrift's team to harvest grapes elsewhere. Students gained valuable hands on experience and in exchange for their time, a donation was made to the Vitis Club to fund student activities.

OWRI team members would like to thank our industry collaborators for their assistance and collaboration. Industry investment and collaboration is vital to the success of OWRI research programs. It enables faculty to conduct research in a representative setting, leading to relevant and applicable results in the vineyard and winery. Stoller, Erath, A to Z Wineworks and fourteen collaborators in the Statewide Crop Load Project are just a few vineyards that take part in research with OWRI faculty.

Cheers to another great vintage! Below are some highlights of the harvest season.



OSU Food Science student Chase Jutzi harvests grapes at A to Z Wineworks.



From left to right: A team of OSU students, Karen Peterson; A to Z Wineworks, and Dr. Elizabeth Tomasino; Assistant Professor, OSU gather to harvest grapes at A to Z Winework's vineyard.



Graduate student Alison Reeve (Skinkis Lab) weighs clusters of Pinot noir during harvest. Reeve and Dr. Skinkis are researching how bud fruitfulness counts taken during dormancy in winter 2016 relate to final yields at harvest 2016.



OSU student vineyard manager Peter Remington harvests grapes from Woodhall, OSU's research vineyard.

Where Are They Now? OWRI Alumni Profile

Oregon State University's viticulture and enology programs continue to grow, and our graduates are working in vineyards and wineries across the globe. As the graduates of today become the industry members of tomorrow, the connection between our university and the wine industry grows stronger. To highlight the accomplishments of OSU alumni in the wine industry, The Oregon Wine Research Institute is featuring a quarterly alumni profile.

Our first installment features an alumni team of Bryan Weil, Jamie Rauch, and Matt Stickle. They are all graduates of OSU and work together at Alexana Winery. To read about their experience, click [here](#).

Dr. Patty Skinkis Welcomes New Graduate Student



Miranda Ulmer joined Dr. Patty Skinkis' lab as a master of science (MS) student in August. Miranda's project will explore Pinot noir bud fruitfulness as a result of different vineyard management practices such as vineyard fertilization and pruning method. Oregon Pinot noir tends to have lower and more variable yields year-to-year than warmer production regions, and one factor for this may be lower bud fruitfulness (number of flower primordia developed in the bud). Bud fruitfulness is a major contributor to vine yield, and since flower primordia

develop in the bud a year before the crop season, management practices can impact the size and number of these buds. This research may help determine whether different management practices may lead to more consistent yields year after year.

In May 2016, Miranda received her bachelor of science degree in biology with an environmental science minor from Hope College in Holland, Michigan. She enjoys learning about all the different factors at work within viticulture and enology research, and the challenge of balancing scientific research with an industry deeply rooted in culture and tradition. She is also looking forward to connecting with growers through her research.

"There is something special about the Oregon wine industry," Miranda stated. "Whether it is the unique climate that lends itself well to quality Pinot noir or the tight-knit community of growers, all so very passionate about producing premium wines, I look forward to being involved!"

Remembering the Work of Dr. Vernon Singleton

In late August, Dr. Vernon L. Singleton passed away. He spent 34 years at the University of California, Davis working in wine phenolic chemistry, and left behind an incredible legacy of research for the grape and wine industry. Dr. Singleton was a significant inspiration to many of today's enology researchers. He was also involved with the [American Society of Enology and Viticulture](#); serving as president, receiving the Honorary Research Lecture award, the Merit Award, and was named a JF Guymon Lecturer. In 2008, ASEV hosted a symposium focusing on his research.

To highlight his work, ASEV gathered Dr. Singleton's 25 most-cited articles published in the *American Journal of Enology and Viticulture*. They are available for viewing [here](#).

Oregon Winegrape Pest Management Strategic Plan Now Available

The Pest Management Strategic Plan (PMSP) is the result of a proactive collaboration between the Oregon Wine Board, Oregon State University and the Oregon wine industry. After receiving Oregon Wine Board grant funding in June 2015, OSU's Joe DeFrancesco, assistant professor and research assistant Katie Murray met with a representative group of growers, researchers, extension agents, and consultants to identify specific pests and critical needs of wine regions throughout Oregon. The development of this plan provides a realistic view of pest management issues and strategies used in the field and a forum for growers to

set meaningful research, regulatory, and educational priorities. With this comprehensive document, researchers, educators, and others working in and with the industry will be able to reference the critical needs identified in the PMSP as they pursue funding for projects designed to meet the specific pest management challenges identified as priorities to the industry. The EPA also uses the detailed information in a PMSP when conducting risk assessments and other regulatory reviews or decision-making processes that could impact the wine grape industry. This document will be revisited and updated after 2-3 years so the industry remains up-to-date on changing pests and management challenges, as well as to monitor status and progress toward meeting cited needs.

The document can be downloaded [here](#).

Factors Influencing Yield Management of Pinot Noir Vineyards in Oregon

Dr. Patty Skinkis, Viticulture Extension Specialist & Associate Professor

Dionne Uzes, former graduate student, OSU Department of Horticulture

Oregon's wine grape industry uses yield targets to achieve quality in Pinot noir vineyards, and this practice has led to increases in cost of production. A multiapproach study was conducted to investigate how vineyard target yields are set, why yield thresholds exist, and who influences decisions related to vineyard target yields. Growers suspect that higher yields are possible without compromising quality, but they are unable to change yield targets due to winery and buyer decision making. To be effective in eliciting change and realizing impact, Extension educators need to conduct targeted outreach to grape buyers and wine makers in addition to growers and consider participatory research.

Read the full *Journal of Extension* article [here](#).

Upcoming OWRI Seminars

The northern Root-knot Nematode Prefers Chardonnay: Insights into Nematode Biology and Management in Semi-arid wine grape vineyards

Dr. Inga Zasada, Research Plant Pathologist, USDA-ARS

Thursday, October 20, 3:30 PM

Kidder 202 (Campus Map [here](#))

Plant-parasitic nematodes are economically important root parasites of grape vines with global losses due to nematodes estimated at 10%. While plant-parasitic nematodes are widely distributed in Washington semi-arid wine grape vineyards, there is a lack of biological data to support grower management decisions. Information on the host status of rootstocks for the northern root-knot nematode, spatial distribution of nematodes in vineyards, and nematode developmental biology will be presented with an emphasis on how this information can be used to better manage nematodes in wine grape vineyards.

To watch this event live, visit: <http://live.oregonstate.edu/>

* Please note, the event will not be available until 3:30 PM on Thursday, October 20.

Impact of Grape Leafroll Associated Virus-3 on Transcription Regulation and the Distribution of small RNA During Ripening

Amanda Vondras, Ph.D. student, Dr. Laurent Deluc, OSU Department of Horticulture

Thursday, November 17, 3:30 PM

Kidder 202 (Campus map [here](#))

Grapevine leafroll associated virus 3 (GLRaV-3) is the most economically impactful virus affecting grapevine worldwide. However, there is little that can be done to reduce the consequences of viral infection for the plant on fruit production. Ultimately, targeted attempts to mitigate the effects of the virus will require an understanding of the plant-pathogen interaction at the molecular level, to understand how mechanisms that underpin normal fruit development are altered by the virus, and whether particular regulatory pathways might account for system-wide responses to the virus. Regulation of gene expression through small RNA and alternative splicing are essential components of plant development and responses to stress. We used Next Generation Sequencing technologies (RNA and small RNA sequencing) to assemble a holistic view of these regulatory agents during normal ripening in *Vitis vinifera* and how they are altered in response to GLRaV-3 infection.

To watch this event live, visit: <http://live.oregonstate.edu/>

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News from the Oregon Wine Board

Register Now for the 2017 Oregon Wine Symposium

Register now for the [2017 Oregon Wine Symposium](#), Feb. 21-22 at the Oregon Convention Center in Portland. The Symposium comprises two full days of industry thought leaders and experts covering the most relevant topics in viticulture, enology and wine business plus the Northwest's largest wine industry trade show, with more than 170 exhibitors.

The Symposium is a must-attend event for wine industry professionals, delivering cutting-edge technical and business intelligence trends across all aspects of the wine business. All winery and vineyard owners, vineyard managers, winemakers, marketing and sales managers and winery staff should [register today](#) to take advantage of the lowest Symposium ticket rates!

Submit Your Application for the 2017 Experimental Wine Tasting

The experimental wine program is back for the 2017 Oregon Wine Symposium. [Click here](#) to submit an application or for more information about the program. Applications are due by Jan. 6. For questions, contact [Carrie Hardison](#).

Save the Date! 2017 WAWGG Convention: February 7, 8 and 9

The WAWGG Convention is the premier educational and networking opportunity for the Washington and Eastern Oregon grape and wine industry with sessions for growers,

vintners, viticulturists, enologists, tasting room staff, marketers, and more! This three-day event features a 200-booth trade show, a poster session showcasing the latest industry research, educational sessions, an Honor Reception recognizing industry leaders and legends, and networking opportunities.

For more information, just click below:

- [Trade Show](#)
- [Sponsorships & Advertising](#)
- [Call for Posters](#)
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Have a particular topic or question you would like to see addressed in the Vine to Wine? Let us know.

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