

OSU Wine and Grape Research and Extension Newsletter



January 2009

<http://wine.oregonstate.edu>

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Working Hard:

Impacts of Research & Extension for Oregon's Winegrape Industry

With or without the Oregon Wine Research Institute in place, the OSU Viticulture & Enology Programs and USDA-ARS are working hard for Oregon's winegrape industry.

Viticulture

Oregon State University and USDA-ARS extension and research faculty are conducting research in various components of viticulture from vine health to vineyard management and vine disease...

Patty Skinkis, Ph.D., Assistant Professor & Viticulture Extension Specialist, OSU Horticulture

Dr. Skinkis leads an applied research and Extension outreach program in viticulture at OSU. Several research projects have been developed to address vine growth/vigor, fruit quality and management of cover crops to achieve a better vine balance. After two seasons of work in the Willamette Valley, results of alleyway cover management indicate that maintaining a permanent cover crop can reduce vine vigor within only two seasons while increasing total phenolics and anthocyanins. Tilling, if found to be unnecessary as indicated in mature vineyards studied, could save vineyards on average \$142/acre per year in fuel costs and reduction in herbicide use while increasing the fruit prices. Understanding vine competition with alleyway vegetation and optimizing alleyway management to manipulate vine vigor level is the ultimate goal. A second cover crop trial has begun in a newly planted vineyard to determine the impacts of cover crop management on soil moisture, vine nutrition and vine growth in the establishment years. Another collaborative project has been started in 2008 with Dr. Walt Mahaffee to determine influence of early season cluster zone leaf removal (prior to bloom and fruit set) on disease incidence. First year results indicate no reduction in fruit set or changes in berry size and decreased infestation of botrytis and powdery mildew. With a cultural practice replacing a pesticide spray or increasing fruit quality, the economic benefits are great! Research in these studies will continue to validate findings over multiple seasons. Future research directions include canopy management studies, impacts of mechanization, vine balance and continued cover crop and vineyard ecology studies.

As part of the Viticulture Program at OSU, Dr. Skinkis has open the doors of communication to the industry, providing a quarterly newsletter to convey research results of the Viticulture and Enology Team in Oregon and cover specific relevant topics in viticulture. Workshops have been developed to cater the needs of the industry and tap into the expertise of the entire group at OSU/USDA-ARS that serves the Oregon winegrape industry. To date, she has developed hands-on workshops and seminars in all regions of the state in varied topics from canopy management to cover crops and vine physiology. She has delivered three distance education courses for industry professional development in viticulture. Dr. Skinkis also coordinates the Oregon Wine Industry Symposium viticulture sessions in collaboration with the Oregon Wine Board.

Vaughn Walton, Ph.D., Assistant Professor & Horticultural Entomologist, OSU Horticulture

Amy J. Dreves, Ph.D., IPM Specialist, Entomologist, OSU Crop & Soil Science

Short Shoot Syndrome (SSS) is recognized to cause economic losses in vineyards in the Pacific Northwest. Over the past 3 years (2006-2008), Drs. Walton and Dreves have focused on mite-related SSS in Oregon vineyards to identify SSS due to bud and rust mites. Research trials indicate that two mite treatments during critical mite feeding times in spring (wooly bud and bud break) reduce damage thereby preventing SSS associated crop losses. The IPM team has been conducting fungicide spray trials for control of powdery mildew and studying the timing and effect of seasonal sprays on mites and beneficial organisms. They estimate that seasonal sulfur application can be reduced by a minimum of 50% if



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growers adapt fungicide spray protocols in order to enhance survival of predator mites and insects that feed on pest mites. Through this research, they have identified the abundance and diversity of beneficial organisms in the vineyards and their contribution toward reducing pest numbers. Grower awareness of their presence and their roles will ultimately help reduce pesticide use and enhance natural enemies of pests. Future work aims to provide guidelines to enhance biological control using attractants and conservation.

Grapevine leafroll virus is an emerging disease along west coast vineyards causing severe revenue losses in California and is of much concern to many Washington, Idaho and Oregon growers. This disease is spread by plant materials, fruit movement during harvest and insects that may transmit the virus to uninfected vines. Field-infected vines serve as source for further infection to uninfected vines. In the future, surveys of infected sites will be conducted to identify the pests and virus incidence and educational/extension efforts will help the industry prevent spread of this virus and disease. This will be a combined effort of Drs. Walton and Dreves in collaboration with other OSU/USDA-ARS team members to address virology and viticulture in relationship to the insect vector spread.

Drs. Walton and Dreves work together to conduct research and extension programs throughout the state. They have been involved in annual grower field days across the state, lending their expertise to local vineyard problems including such pests as phylloxera, leaf hoppers, mealybugs and mites. They also disseminate their research findings in the OSU Vineyard Arthropod Newsletter.

Jay W. Pscheidt, Ph.D., Professor and Extension Plant Pathology Specialist, OSU Botany & Plant Pathology

Dr. Pscheidt's focus is to lead a statewide Extension program on the diagnosis and management of diseases of *all* fruit crops including grapes. This may seem like a daunting task, but he has kept a strong Extension program alive for winegrapes for over 20 years. Active grape programs include testing the efficacy of many chemicals, biologicals and techniques for the management of important diseases. The information generated is incorporated annually into the Grape Pest Management guide used throughout Oregon. Growers then have local information with which to make powdery mildew and botrytis bunch rot control decisions. Important activities also include monitoring for diseases, such as downy mildew, that could become problems. Downy mildew of Boston Ivy has the potential to seriously impact our grape industry. Dr. Pscheidt's research showed that an outbreak of this disease in the ornamental industry in 2001 would not become a problem to the PNW grape industry. Eutypa dieback also has the potential to be a chronic problem as the grape industry ages. My campaign against this disease since I arrived has kept the industry aware of this potential threat, minimizing its impact over the last 20 years.

Paul Schreiner, Ph.D., Research Plant Physiologist, USDA-ARS, Corvallis, OR

Dr. Schreiner's lab (USDA-ARS) focuses on fundamental and applied aspects of grapevine root physiology and the mineral nutrition of vines. While direct impacts on grape industry

practices are difficult to document, recent accomplishments from Dr. Schreiner's research program are many. He has shown that arbuscular mycorrhizal fungi (AMF) play a critical role in phosphorus (P) nutrition of vines grown in Oregon soils (particularly red-hill soils); however, he has also demonstrated that inoculation of vines with AMF is rarely needed to establish healthy levels of root colonization in newly planted vineyards. His research has shown that vines grown under greater water deficits (higher water stress) are more reliant on AMF. Identifying and documenting the diversity of AMF species that form symbiosis with grape roots in Oregon vineyards has been a research goal of Dr. Schreiner. Increasing the understanding of how ring nematodes (the most numerous nematode pest in Oregon vineyards) affect fine root production and AMF function is critical to understand vine nutrient uptake. Much of his work has focused on vine nutrition: showing when macro-nutrients are taken up from soil and what quantities of nutrients are required by dryland Pinot noir vines grown in Oregon; demonstrating that foliar P fertilizer application has only a minor influence on vine P status, AMF colonization, water relations, and fruit quality of Pinot noir; and showing that alleyway cover crops that are mowed in the spring/summer do not compete with vines for water or nutrients in typically managed Oregon vineyards. For more information on his research results, please see Dr. Schreiner's published research papers online at: <http://www.ars.usda.gov/pandp/people/people.htm?personid=5018>.

Walt Mahaffee, Ph.D., Research Plant Pathologist, USDA-ARS, Corvallis, OR

Dr. Walt Mahaffee has been conducting research foliar pathology of grapevines since 1998. The focus is on the two fungal pathogens powdery mildew (*Erysiphe necator*) and gray mold (*Botrytis cinerea*). His research program investigates fungal pathogen biology and infestation in vineyards with focus on developing relevant models for disease forecasting. One of his most notable accomplishments has been the development of a spore trapping system for determining infection periods of these fungal diseases. Dr. Mahaffee is currently researching modeling of the disease infestation to determine the environmental cues in the Willamette Valley for ascospore release. He plans to expand the spore trapping system and make it commercially applicable through industry partnerships in the near future to better provide diagnostic tools for precision spraying for prevention of fungal diseases. The research with this system in the Willamette Valley indicates that several early season sprays of pesticides can be eliminated based on infestation patterns observed over the past three growing seasons.

To learn more about Dr. Mahaffee's research projects and publications, see the following website: <http://www.ars.usda.gov/pandp/people/people.htm?personid=3536>.

Bob Martin, Ph.D., Research Plant Pathologist, USDA-ARS, Corvallis, OR

Dr. Martin is a research virologist and leader of the USDA-ARS Hort Crops Research Unit in Corvallis. He works on virus epidemiology of numerous small fruits, including grapes. Dr. Martin develops and tests new strategies for detecting virus strains

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that will serve as diagnostic tools in determining vine virus status. He also researches epidemiology of virus with respect to their interaction in the vine and vectors that can spread the virus. Dr. Martin is currently working on virus characterization of grapevine leafroll virus (GLRaV), rupestris stem pitting (RSPV) and other important viral diseases. He works closely with other OSU and USDA faculty to develop IPM practices that can address concerns with virus prevention, control and spread.

To learn more about Dr. Martin's research and read publications, see the following website:

<http://www.ars.usda.gov/pandp/people/people.htm?personid=3602>.

Inga Zasada, Ph.D., Research Plant Pathologist, USDA-ARS, Corvallis, OR

Dr. Zasada, is a recent hire in 2008 at the USDA-ARS Horticultural Crops Research Laboratory. The long term objective of her research program is to develop sustainable plant-parasitic nematode management systems for the small fruit industries. In vineyard systems Dr. Zasada will be conducting research on the biology and management of the nematode-transmitted virus *Tomato ringspot virus* (ToRSV) and its nematode vector *Xiphinema americanum* (the dagger nematode). ToRSV can result in significant yield loss of grape and is difficult to manage once present in a vineyard. The dagger nematode has been found in approximately 75% of surveyed vineyards in the Pacific Northwest; however, the occurrence of ToRSV is rare. Obviously the presence of the nematode is not always a good indicator of the presence of the virus. The question is "why?". Knowing if the dagger nematode populations present in the Pacific Northwest are able to transmit ToRSV has tremendous value when making pre-plant nematode management decisions. For example, if a *Xiphinema* population that does not transmit ToRSV is present in a field, then the threshold for treatment would be much higher than for a *Xiphinema* population that can transmit viruses. Watch for research results in the future from Dr. Zasada as she develops her nematode research program in Oregon and the Pacific Northwest.

OSU Regional and County Extension

Umpqua Valley – Steve Renquist, Extension Horticulturist, Douglas Co.

OSU Extension and the local winegrape industry in the Umpqua Valley have worked together to raise the awareness of the fine wines being produced in our area through an extensive business plan development and marketing plan during the past five years. The plan has included many creative tools and projects like a wine tasting passport to encourage tourists to visit a number of wineries with each visit to the area. The business plan also led to a number of new billboards being placed along entry roads into the Umpqua Valley directing visitors to gateway wineries. New brochures, informational videos in area hotels, creative use of radio ads, and airport kiosk ads have all contributed to increased wine sales growth better than 15% per year and the increase in the number of new wineries in our area.

Grower demand for educational programming has led OSU Extension to offer three major seminars on an annual basis for the Umpqua Valley. Seminars have been aimed at providing

answers to grower's questions with short shoot syndrome, wine quality issues, and new grower start-ups. OSU Extension and the Umpqua Valley Winegrape Association have been significant supporters contributing to the establishment of the new Southern Oregon Wine Institute at Umpqua Community College, and OSU Extension in Douglas county will serve to provide content as part of their curriculum.

Southern Oregon – Marcus Buchanan, Ph.D., Viticulture Extension Instructor

The 2008 season was the first full growing season for the Southern Oregon Viticulture Program and Extension Instructor, Dr. Marcus Buchanan. He organized and delivered Extension classes in association with the Rogue Valley Winegrowers Association and the Department of Horticulture covering vine physiology, soil and root relations, vineyard management, vineyard irrigation, oak root fungus, phylloxera and cover crop management. Dr. Buchanan participated in the annual Grape Day in Douglas County and organized the Annual Vineyard Tour in Josephine and Jackson Counties with support from Extension faculty at Corvallis.

Cooperative vineyard projects included assessment of gypsum and potassium fertilization on fruit quality, evapotranspiration and soil moisture monitoring, and evaluation of cover crop seed blends. Dr. Buchanan and the Southern Oregon Research and Extension Center's research entomologist, Rick Hilton, responded to eight individual grower concerns related to leaf hoppers, twig borers, blister mite, and grape mealybugs in 2008. Over fifty visits were made to vineyards in response to problem calls ranging from early bud failure and poor vine vigor, herbicide damage, to weed management. Dr. Buchanan works with the new grower research committee in Southern Oregon to identify, plan, and implement priority projects for the immediate future including a multi-vineyard comparison of irrigation impacts on berry composition, as well as, a variety clonal trial.

Mid-Columbia – Steve Castagnoli, Extension Horticulturist

Steve Castagnoli supports new and existing winegrape growers in the Mid-Columbia region with problem solving and information on vineyard establishment and management. He organizes workshops and other programs on topics in viticulture and enology in collaboration with OSU specialists and the Columbia Gorge Community College. Steve manages the OSU-MCAREC demonstration vineyard, where pruning and training systems, canopy management practices, and pest management practices used in this region for the production of high quality fruit are being demonstrated. He also collaborates with other OSU faculty on creating or revising relevant Extension publications including the *Vineyard Economics* publications released in 2008. In 2008, Steve facilitated the following programs in the Mid-Columbia area: Winegrape Pruning Workshop - Jan. 25, 27 participants (collaboration with Patty Skinkis) and Columbia Gorge Vineyard Field Day – Aug 5, 48 participants (collaboration with Patty Skinkis and other OSU and USDA specialists).



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Walla Walla Valley - Clive Kaiser, Ph.D., Extension Horticulturist, Umatilla Co.

Dr. Clive Kaiser works with several horticultural commodities in the Walla Walla Valley, including winegrapes. In 2009, Dr. Kaiser plans to continue working with the winegrape growers in the Walla Walla Valley on pesticide resistance issues through promotion and use of the Extension document he directed and produced in 2008 <http://extension.oregonstate.edu/catalog/pdf/em/em8968.pdf>. He also works closely with the Vinea board and Oregon LIVE in setting thresholds for pests and diseases and selecting appropriate chemicals for control of disease and pest problems when thresholds are exceeded. He works on collaborative research with Dr. Vaughn Walton on mealybug trapping. As he expands into research for his region, he plans to undertake research trials in vineyards which have suffered 2,4-D damage due to spray drift. Preliminary results have indicated that combination sprays of plant growth regulators (cytokinin + Gibberellic acid) may reverse the effects of 2,4-D herbicide (auxin). Spray drift is a significant problem in this region of Oregon.

Enology & Food Science

Faculty in OSU's Department of Food Science & Technology and USDA-ARS team up to address fruit quality and various needs in wine production...

James Osborne, Ph.D., Assistant Professor & Enology Extension Specialist, OSU Food Science & Technology

The primary focus of Dr. Osborne's research is to better understand the impact microorganisms can have on wine quality. He has three major projects in the works. The first investigates the specific impact of certain *Saccharomyces* and non-*Saccharomyces* yeast on the flavor and aroma of Pinot noir. The project uses hydrostatic pressure (HHP) to treat grapes prior to fermentation to eliminate any 'native' yeast and bacteria present allowing inoculation with a single yeast strain and performing fermentations under sterile conditions. Fermentations were performed on Pinot noir in 2008 and will assess by a trained sensory panel. A second project investigates the interactions that can occur between wine yeast and malolactic bacteria. The ability of various commercial yeast strains to produce SO₂ and SO₂ binding compounds has been assessed and the impact of bound SO₂ on wine lactic acid bacteria is currently being investigated as previous work showed that bound SO₂ is more antimicrobial to wine LAB than previously thought. This study will aid in the selection of specific yeast and malolactic bacteria strains for primary and secondary fermentation. It may also aid in the more efficient use of SO₂ during winemaking. A third project has just begun looking at the impact that the malolactic fermentation (MLF) has on red wine color development and stability. The bacteria that perform the MLF can metabolize a number of compounds that are known to be important in the development of stable color compounds. However, the impact that this can have on red wine color is unknown. Results from this study may indicate when the best time to inoculate for MLF is in order to maximize color development and stability.

Extension programs during 2008 focused mainly on the microbial spoilage of wines. The popular filtration workshop was in

February with 28 attendees learning the "ins and outs" of filtration, what options there are, and the proper way to go about doing it. Another workshop was designed as a follow up to an enology session at the 2008 Oregon Wine Industry Symposium on the microbial spoilage of wine. It was held in Roseburg and Portland in April 2008. Despite the tasting of some truly horrible microbial spoiled wines, the workshop was a huge success and due to demand was held a third time in Portland. In all, close to 90 attendees learned about the microbes that can cause problems during winemaking, how to recognize the faults they can cause, and how best to prevent and control their growth in wine. Dr. Osborne also coordinates enology sessions as part of the Oregon Wine Industry Symposium annually and has been involved in annual vineyard field days and workshops.

Michael Qian, Ph.D., Associate Professor, Flavor Chemistry, OSU Food Science & Technology

Aroma is one of the most important attributes for wine quality. Although many aromas (secondary aromas) are formed through fermentation, the most important aromas (primary aromas) are directly from grape. These aromas exist either as free forms in the grape and are carried into wine during fermentation, or as glycoside bound precursors which are released during fermentation and aging process. They are responsible for the varietal aroma and wine quality. Dr. Michael Qian's flavor chemistry program in the past has been focused on the development of techniques to measure trace level of aroma compounds and their precursors in grapes. The technical capability of analyzing trace level aroma compounds in wine and wine grape enable us to build a platform to study the impact of various viticulture practices on wine aroma quality. We are currently collaborating with Dr. Krista Shellie at USDA-Idaho to study the impact of deficient irrigation and particle film on Merlot wine aroma, with Dr. Patty Skinkis to study the impact of cover crops on Pinot noir wine and with Dr. Paul Schreiner of USDA to study the effect of vine nutrient status on flavor constituents of Pinot noir fruits. Dr. Michael Qian's group is also studying the wine closure and oxygen permeability on wine bottle aging with collaboration of Argyle Winery and G-3 Enterprises. This integrated team approach will provide better understanding of the effect of vineyard cultural practice, including nutritional status, water management, and fruit maturation, on grape and wine quality.

Alan Bakalinsky, Ph.D., Associate Professor, Microbiologist, OSU Food Science & Technology

Do yeast mannoproteins contribute to improved wine texture? Recent work in the Bakalinsky lab concerns the practice of aging wine on the yeast lees in barrel after fermentation but prior to bottling. Although the mechanisms are unknown, it is widely believed that this practice improves wine texture. During aging on the yeast lees, cells slowly break apart allowing leakage of intracellular components into the wine. Jeff Rowe, who completed his M.S. degree in June 2008 identified yeast proteins and quantified yeast "mannoproteins" as they were extracted into model wines over a 9-month time period under cellar conditions. Independently, Jeff also measured mannoprotein content and



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identified individual proteins in a series of aged commercial sparkling wines which had undergone extensive lees contact in bottle.

Jeff's major findings were that while many different yeast proteins were extracted into the model wines, the mannoproteins predominated after 9 months on the lees. At 9 months, a relatively small amount of these proteins were present, 10-20 mg/l. Surprisingly, in the aged sparkling wines, most proteins present were derived from grapes—not the yeast. And about 10-fold less mannoprotein was found in the sparkling wines than in the model wines. Taken together, these results raise two important questions. How likely is it that mannoproteins survive in red wines by the time such wines are typically consumed? And if they survive, are they present in a high enough.

Jungmin Lee, Ph.D., Research Food Technologist, USDA-ARS HCRL Parma, ID

Plant metabolites are the main focus of the USDA-ARS food chemistry program lead by Dr. Lee. They investigate the quality characteristics of grapes and grape products with analytical method development and compositional analysis, and their significance for improving quality. Concentration is placed on phenolics, which are quality indicator compounds of fruit and fruit products. Phenolics are natural phytonutrients that offer potential benefits to human health. We collaborate with winemakers, vineyard managers, and other researchers. Current projects include: influence of vine virus status (in collaboration with Bob Martin), vine nutrient status (in collaboration with Paul Schreiner), canopy interior microclimate (in collaboration with Julie Tarara), and vineyard floor management (in collaboration with Kerri Steenwerth) factors that impact phenolics, sugars, organic acids, YAN (yeast assimilable nitrogen), etc in grapes. Research findings describe how biotic and abiotic stressors change grape metabolic processes and how these can affect viticulture and fermentation practices. Dr. Lee and Dr. Martin recently published on the impacts of grapevine leafroll virus on fruit quality of Pinot noir. To read more, please see Dr. Lee's publications online at <http://www.ars.usda.gov/pandp/docs.htm?docid=15829>.

For More Information...

To read more about the research projects conducted by these faculty members, please see the research section of the OSU Viticulture & Enology Website at <http://wine.oregonstate.edu>. This website also offers archived newsletters, upcoming events and detailed research reports, and information on the Bachelor of Science and Graduate Programs in Viticulture & Enology at OSU.

Vineyard Observations are Critical in Winter

Patty Skinkis, Ph.D. Viticulture Extension Specialist

With the cold temperatures, snowfall and ice that we experienced in various regions throughout Oregon in December and January, it will be important to take a close look at vineyard blocks this winter and into spring.

Areas of the North Willamette Valley experienced significant vine loss due to snow and ice load on newly established vineyard blocks. In such blocks, vines were broken above, below or at the graft unions. Unfortunately, little can be done to revive vines if broken at grafts unions or below.

Vineyards in areas of eastern Oregon experienced cold temperatures which can lead to wood or bud damage. In some areas, temperatures dipped down to -14°F (Echo, OR) and -11°F in Hermiston; however, most locations remained warmer than -10°F and lasted for a matter of hours, based on Agrimet weather stations positioned throughout these regions. In these areas, vineyard managers can do bud viability assessments while pruning to determine winter bud loss of mid to low shoot buds. In the case of wood damage, crown gall may become a significant threat, if it hasn't already been a problem observed in the vineyard. Plan to walk the vineyard in spring and early summer to search for new fleshy galls forming at any areas that were damaged due to cold temperatures this winter. For more information on bud assessments, see the December 2008 Vineyard Notes online at <http://wine.oregonstate.edu/newsletter>.



Crown gall can form on aerial portions of the vine as noted here on the base of a shoot grown last season.



A dead primary bud shown above has a black, necrotic center while the live bud below has green primary, secondary and tertiary buds visible.

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Oregon State University Bids Farewell to Dr. Jim Kennedy, Wine Chemist

Dr. Jim Kennedy, Associate Professor in the Food Science Department at Oregon State has served the University and industry as a wine chemist since July 2001. During his seven years at OSU, he quickly became an asset to both the University and the industry. He has collaborated with many researchers, guided several students, and worked enthusiastically with growers and wineries in the industry. Kennedy's work has focused on understanding and improving wine texture. This month, Dr. Jim Kennedy will be leaving OSU for a new position at the Australian Wine Research Institute in Adelaide, Australia. He will be sadly missed by OSU faculty and students, as well as by an industry that has grown very fond of him. As he prepares to leave OSU, we asked Jim to recount his time here in Oregon and speculate on his new beginning...



1. What are your main interests in research?

My primary interests are in grape and wine phenolic chemistry. Since arriving at OSU, my research goal has been to improve the quality of Oregon wines by understanding how grape and wine production practices influence the chemistry of phenolics. I have been particularly interested in the texture of red wine and how we can improve our ability to manage the quality of red wine texture.

2. What are you going to miss the most about OSU?

My time at Oregon State University has been an incredibly productive period in my life both personally and professionally. This is undoubtedly due to the support that I have had while at OSU. In looking back, and comparing it to the life that I will be living in Australia, I will absolutely miss the time that I have had with students most. When I started my position in 2001, I had little in the way of teaching experience. As I leave OSU, I feel extremely fortunate to have had the opportunity to be involved in the education and training of people who are the future of this state. I am humbled by this thought. I will treasure and miss the classroom and feel like I am one of the luckiest people in the world to have had this experience.

3. What were a few of the most memorable events for you while at OSU?

Here is a short list of some of the most memorable: Seeing snow outside of my window. Beaver believers. Are there any better fans? Observing evolution in action: From brewing student to winemaker. Teaching my son how to ride a bike on the OSU quad . . . precious. My wife graduating with a Masters degree in Public Health. The loss of a respected colleague and very dear friend, Elizabeth Sulzman. She touched the lives of so many and we all miss her terribly.

My most memorable times while at OSU will always be the things that have nothing to do with my position description but have everything to do with the life that I lived while in Corvallis and at OSU.

4. Can you give us a little information about your new position?

My new position will be the Chemistry group Research Manager, and my primary responsibilities will be to develop and manage the chemistry research effort at the AWRI. The direction of research will be consistent with the goals and objectives outlined by the Australian wine industry and will be designed to ensure the long-term economic viability of the Australian wine industry.



5. What are you most excited about in this move--personally and professionally?

The AWRI is one of the world's leading institutes for grape and wine research. There are nearly 100 people working at the AWRI. On the University of Adelaide's Waite campus where the AWRI is situated, there are probably an additional 100 or so people supporting the grape and wine industry in some capacity. I find the resources, energy, and enthusiasm being directed towards the improvement of the Australian wine industry very exciting. The stimulation of new ideas, opportunities for collaboration, and ability to execute all manner of experiments, really get my juices going.

From a personal standpoint I am really looking forward to living in a cosmopolitan city on the coast. The warm weather, good food and wine are also high on my list. I am also looking forward to having my son spend some time overseas. Finally, I am looking forward to watching Australian Rules Football . . . go Crows!

6. What advice would you give to enologists new to OSU (or Oregon)?

Personally: For those who are new to the rainy side of the Pacific Northwest and the Willamette Valley: The beauty and bounty of summer in Oregon is in part due to the rainy season. So, head up on those dark, dreary, rainy days, and think of summer.

Professionally (and assuming that the enologist had the same appointment that I do): My biggest advice would be to think about



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numbers. You have 6 years to make the case for granting indefinite tenure. The clock starts on day 1. One of the most important things that you will need to do is establish a well funded research program. To do so, your time is most efficiently spent generating proposals and manuscripts, as well as developing collaborative relationships and managing students. I have always thought that the best formula for success was to have a postdoctoral fellow, 4-5 graduate students, and several undergraduate students in the lab. In order to support this lab, you would need ~\$300,000/year. According to 2008 data published by the TTB, Oregon currently produces 0.64% of the US wine production volume. Oregon is a very small industry yet you work for Oregon. The Oregon wine industry invests approximately \$250,000/year on research, and those funds are distributed through the competitive grant process. To be successful as a research enologist at OSU then, it will be important to develop strong collaborative relationships with academics at other institutions, and to find research support from outside of the state. The trick is figuring out how to be competitive for research funding from agencies outside of Oregon, yet with a research directive that will benefit the state's industry. The final piece of the puzzle is to generate information that is both peer-reviewed and effectively conveyed to the Oregon wine industry. Attempting to achieve all of this was my biggest challenge, and unquestionably my greatest frustration, but ultimately provided the metrics that I am most proud of.

7. What's your favorite wine?

Until recently I really enjoy Oregon Pinot noir, but lately I have really started to get into Barossa Shiraz!! Just kidding, just kidding! In all honesty, I enjoy all sorts of wine although I tend to be partial to massively built, well crafted red wines.

Although Jim Kennedy is leaving OSU for Australia, we've gained a new connection and collaborator abroad. We wish him the best on his new career and hopes he remembers OSU, Oregon and Pinot Noir fondly!

New OSU Viticulture Extension Publications

Click the link below for access to these documents. All of these are also available online at <http://wine.oregonstate.edu/publications>

Establishing a Vineyard in Oregon: A Quick-start Resource Guide, EM 8973-E

Author: Patricia Skinkis.

New in January 2009. This is a resource guide for new growers or interested parties to consider before planting a vineyard. View and download online at the following website:

<http://extension.oregonstate.edu/catalog/pdf/em/em8973-e.pdf>

How to Reduce the Risk of Pesticide Resistance in Winegrape Pests in Oregon

Authors: Clive Kaiser, Jay Pscheidt, Vaughn Walton, Patty Skinkis

New in September 2008. This is a must-have for any vineyard operation! The guide provides detailed information on insecticides and fungicides currently registered for use on winegrapes in Oregon, including information regarding the pests for which each product is registered, mode of action, chemical groupings and classification. Preview online and purchase at

<http://extension.oregonstate.edu/catalog/details.php?search=em+8968>

Vineyard Economics: Establishing and Producing Pinot Noir Wine Grapes in Western Oregon

Authors: James Julian, Clark Seavert, Patty Skinkis, Philip VanBuskirk and Steve Castagnoli

New in August 2008. This publication provides growers with a tool for economic management and decision making. Information was gathered from selected growers, field representatives, researchers and farm suppliers. The study provides typical costs and returns to a well managed 10-acre vineyard. View online at <http://wine.oregonstate.edu/publications>.

Upcoming Events

March 10, 2009 - Vineyard Sanitation: Virus, Vectors and Plant Materials

Oregon State University Viticulture Extension and the Oregon Wine Board are partnering to bring you a workshop on virus and vectors in the vineyard. You will learn more about plant material certification, quarantine and the need to prevent introduction and spread of certain viruses and insect vectors into Oregon's grape growing regions. Speakers include experts in virology, entomology and viticulture. Representatives from Oregon Department of Agriculture and nursery representatives will be on hand to contribute to discussions on plant material disease status, distribution and movement. For more information and to register, please click [here](#). More information can also be found on our website <http://wine.oregonstate.edu>.

February 23-25, 2009 - Oregon Wine Industry Symposium

Oregon's wine industry annual symposium will be held in Eugene, OR. Sessions are designed for topics in viticulture, enology and marketing with an industry trade show on-site. A full schedule and registration information can be found online at

<http://explorer.oregonwine.org/symposium.php>.