

Registration & Program Guide

JUNE 17–20, 2019

Napa Valley Marriott Hotel
Napa, California USA

70 YEARS



**Science: A Platform
for Progress**

**Register Today
at asev.org**

Program Includes

Merit Award Presentation

Dr. Sara Spayd
North Carolina State University,
Raleigh, Emerita

ASEV Extension Distinction Award Presentation

Dr. Monica Cooper
University of California
Cooperative Extension,
Napa County

Honorary Research Lecturer

Dr. Susan Ebeler
University of California, Davis

Keynote Presentation

Dr. Susan Bastian
The University of Adelaide,
Australia

Early Career Member Lunch

Mr. Corey Beck
Francis Ford Coppola
Presents, California

Oak Symposium

Research Reports

Student Flash Talks

Napa Valley Regional Wine Reception

Supplier Displays

Outreach Seminar



AMERICAN SOCIETY
FOR ENOLOGY AND
VITICULTURE

70TH ASEV NATIONAL CONFERENCE

World-renowned Napa Valley will be the backdrop to this year's National Conference. Napa Valley is one of the smallest winegrowing regions in the world, with only one-sixth the planted acreage of Bordeaux and is the first American Viticultural Area (AVA) to be designated in California (1981). While most famous for Cabernet Sauvignon and Chardonnay grapes, Napa Valley has more than three dozen different wine grape varieties—from Albariño to Zinfandel—that flourish in the area due to its diverse microclimates. Napa has more than 400 wineries and nearly all wineries (95%) are family owned.

Please visit www.asev.org for additional program, sponsorship, registration, and hotel information.

2019 Merit Award Presentation

THURSDAY, JUNE 20



9:15 am–10:00 am

Dr. Sara Spayd, North Carolina State University, Raleigh, Emerita
Grape and Wine Industry, Research, Extension and Educations: It Takes Villages

The ASEV Merit Award is presented annually to an individual who has significantly contributed in an outstanding manner to the progress and advancement of enology and viticulture to the industry and/or to the Society. This award acknowledges excellence in the fields of education, technology, research, management, public relations, or any discipline related to enology and viticulture.

The ASEV Board is pleased to honor Dr. Sara Spayd of North Carolina State University, Raleigh as ASEV's 2019 Merit Award recipient.

Dr. Spayd was an Extension Viticulture Specialist at the Department of Horticultural Sciences at North Carolina State University, Raleigh. Prior to that, she was an Extension Food Scientist/Food Scientist at the Department of Food Science and Human Nutrition, Washington State University, Irrigated Agriculture Research and Extension Center.

She has been a member of ASEV (National) since 1980, holding various positions that include serving as the 2011-2012 President, and chairing multiple symposia and committees. She received three Best Viticulture Papers Awards (1994, 2002 and 2009). She's currently a member of the ASEV Eastern Section. Other previous membership and committee services include the ASEV Northwest Chapter, American Society for Horticultural Science, Institute of Food Technologist (National and Lewis and Clark Section), Sigma Xi, Gamma Sigma Delta, Central Washington Wine Technical Group and Washington State Grape Society. Dr. Spayd's research and extension work has generated over 50 international and national speaking engagements that resulted in international vineyard consultations and several awards, including the Krezdorn Award and National Food Processors Award in addition to the three Best Viticulture Paper Awards. She is well known for her deep commitment to her community and mentoring students as early as high school.

"Dr. Sara Spayd embodies what ASEV was designed to do: develop research, create a network, share the knowledge and mentor new leaders. She's an exemplary colleague who's produced decades of brilliant research, was actively involved in multiple projects and could be depended on to get you results. But the one thing that stands out about Sara is her ability to bring along students into the industry. With her warm infectious charm, she introduces and guides them into careers and networks they would have never thought to investigate. She introduced me to ASEV and is why I am part of the Society. That is her legacy," said Jim Harbertson, ASEV Past President, Washington State University, Tri-Cities.

2019 ASEV NATIONAL CONFERENCE OVERVIEW

All events will be held at the Napa Valley Marriott Hotel, unless noted otherwise.

MONDAY, JUNE 17



3:00 pm–6:00 pm	Registration
3:00 pm–6:00 pm	Speaker Ready Room
4:00 pm–6:00 pm	ASEV Board Meeting

TUESDAY, JUNE 18

6:00 am–4:45 pm	Registration
7:00 am–4:45 pm	Speaker Ready Room
7:15 am–4:45 pm	Oak Symposium
7:00 pm–8:00 pm	ASEV Board Reception (by invitation only)
8:00 pm–10:30 pm	ASEV Board Dinner (by invitation only)

WEDNESDAY, JUNE 19

6:30 am–7:30 pm	Registration
6:30 am–7:30 pm	Speaker Ready Room
7:30 am–11:45 am & 1:30 pm–7:30 pm	Poster Sessions (research reports)
7:55 am–8:05 am	President's Welcome
8:05 am–8:15 am	Napa Valley Vintners Presentation
8:15 am–9:55 am	Enology—Phenolic Extraction (oral research reports)
8:15 am–9:55 am	Viticulture—Impact of Red Blotch on Grape and Wine Composition (oral research reports)
10:00 am–4:00 pm	Supplier Displays
10:15 am–11:00 am	ASEV Extension Distinction Award Presentation—Building Effective Extension Networks to Support Data-driven Decision Making
11:20 am–12:05 pm	Perspectives on Grape and Wine Flavor: Past, Present, and Future
12:05 pm–1:30 pm	Early Career Member Lunch
1:30 pm–2:50 pm	Enology—Microbiology of Wine (oral research reports)
1:30 pm–2:50 pm	Viticulture—Managing Vineyard Pests and Weeds (oral research reports)

3:05 pm–3:35 pm	Keynote Presentation—Contextual Research Technological Developments to Unlock Consumer Wine-related Behavior and Preference Information during Diverse Consumption Occasions
3:50 pm–4:50 pm	Enology—Wine Chemistry: Oxidation & Aging (oral research reports)
3:50 pm–4:50 pm	Viticulture—Fruit Composition and Yield (oral research reports)
5:05 pm–6:00 pm	 Student Flash Talks—Enology (selected student poster presenters)
5:05 pm–6:00 pm	 Student Flash Talks—Viticulture (selected student poster presenters)
6:00 pm–7:30 pm	Poster Authors Present (research reports) & Napa Valley Regional Wine Reception

THURSDAY, JUNE 20

7:30 am–11:45 am & 1:30 pm–5:00 pm	Poster Sessions (research reports)
7:30 am–5:00 pm	Speaker Ready Room
7:30 am–7:15 pm	Registration
8:00 am–9:00 am	Enology—Wine Macromolecules (oral research reports)
8:00 am–9:00 am	Viticulture—Crop Load Management (oral research reports)
9:15 am–10:00 am	Merit Award Presentation—Grape and Wine Industry, Research, Extension and Education: It Takes Villages
10:00 am–4:00 pm	Supplier Displays
10:15 am–11:15 am	Enology—Wine Stability (oral research reports)
10:15 am–11:15 am	Viticulture—Breeding and Rootstocks (oral research reports)
11:30 am–Noon	AJEV Best Enology Paper Author Presentation
Noon–1:00 pm	ASEV Annual Business Meeting
1:10 pm–2:30 pm	 Enology—Vineyard & Winery Impacts on Wine Sensory (oral research reports)
1:10 pm–2:30 pm	Viticulture—Irrigation (oral research reports)
2:45 pm–3:15 pm	AJEV Best Viticulture Paper Author Presentation
3:30 pm–5:00 pm	Efficient Vineyard (outreach seminar)
5:15 pm–7:15 pm	Student—Industry Mixer Reception

 Student Flash Talks

OAK SYMPOSIUM

TUESDAY, JUNE 18

7:15 am-4:45 pm

Oak in Winemaking Symposium

This symposium is designed to explore the impacts of using oak barrels on the quality and composition of wine. The symposium is designed to address the fundamental aspects of coopering, oak chemistry, and barrel aging of wine. Specifically, this symposium will focus on how barrels are made, which types of wood are selected and how new species or genera are being investigated to understand their unique properties, as well as a review of barrel chemistry and its effects on wine composition. The event will include a tour of cooperages due to the close proximity of multiple cooperages in the Napa Valley. A tasting will also be provided highlighting the effects of using oak barrels on red wine composition during primary fermentation and aging.

SYMPOSIUM CHAIR:

Tom Collins, Washington State University, Tri-Cities

PROGRAM:

Program is subject to change.

Cooperage Tours

Seguin Moreau Napa Cooperage, Napa, California

Demptos Napa Cooperage, Napa, California

SPEAKERS:

Tom Collins, Washington State University, Tri-Cities

Scott Frost, Washington State University, Tri-Cities

Jarrad Gollihue, University of Kentucky, Lexington

Anthony Morris, Canton Cooperage, Kentucky

Ignacio Nevares, Universidad de Valladolid, Spain

Delphine Winstel, Université de Bordeaux, France

Oak Symposium Sponsor:



INVITED SPEAKER

ORAL SESSIONS & PRESENTATIONS

Research presentations (oral and poster) are based on submitted abstracts and represent work in progress and final research. The abstracts are available online now. Visit www.asev.org to view abstracts within each session.

WEDNESDAY, JUNE 19

7:55 am–8:05 am

President's Welcome

8:05 am–8:15 am

Napa Valley Vintners Presentation

Enology—Phenolic Extraction Session (research reports)

8:15 am–9:55 am

MODERATOR:

L. Federico Casassa, California Polytechnic State University, San Luis Obispo

SPEAKERS:

Elucidating and Modeling Proanthocyanidin Adsorption and Desorption Phenomena in Model Wine Systems
Jordan Beaver, University of California, Davis

Impact of Anthocyanins on Skin Tannin Extractability
James Campbell, University of California, Davis

Vintage Effect on Skin Cell Wall Composition and Phenolic Extractability of Cabernet Sauvignon from Different Regions
Cristina Medina Plaza, University of California, Davis

Pushing Forward Polyphenol Extraction in Cool Climate Pinot noir and Cabernet Sauvignon Winemaking
Pascal Wegmann-Herr, DLR-Rheinpfalz, Germany

Wine Tannin in *Vinifera*-Hybrid Blends is Independent of Blend Timing
Erin Norton, Iowa State University, Ames

Viticulture—Impact of Red Blotch on Grape and Wine Composition Session (research reports)

8:15 am–9:55 am

MODERATOR:

Keith Striegler, E. & J. Gallo Winery, California

SPEAKERS:

Effects of Grapevine Red Blotch Virus on Grape Development and Resulting Wine Quality
Arran Rumbaugh, University of California, Davis

Grapevine Red Blotch Virus: Controlling the Vector
Cindy Preto, United States Department of Agriculture, California

Effects of Grapevine Red Blotch Disease on Cabernet franc Vine Physiology, Fruit and Wine Quality, and Bud Hardiness
Pat Bowen, Agriculture and Agri-Food, Canada

Effects of Red Blotch Disease on Pinot noir under Oregon's Cool Climate Conditions
Justin Litwin, Oregon State University, Corvallis

Deficit Irrigation Reduces Fruit Quality in GRBV-infected Pinot noir Grapevines
Alexander Levin, Oregon State University, Central Point

2019 ASEV Extension Distinction Award Presentation



10:15 am–11:00 am

Building Effective Extension Networks to Support Data-driven Decision Making
Dr. Monica Cooper, University of California Cooperative Extension, Napa Valley

2019 Honorary Research Lecturer



11:20 am–12:05 pm

Perspectives on Grape and Wine Flavor: Past, Present, and Future
Dr. Susan Ebeler, University of California, Davis

Enology—Microbiology of Wine Session (research reports)

1:30 pm–2:50 pm

MODERATOR:

Torey Arvik, Sonomaceuticals/WholeVine Products, California

SPEAKERS:

Consequences of Inhomogeneously-Distributed Yeast in White Wine Fermentations
Dominik Durner, Weincampus Neustadt, Germany

Conserved Stress Responses by Yeast during Pinot noir Fermentation Revealed by Regulatory Gene Network Analysis
Taylor Reiter, University of California, Davis

Importance of Measuring the Biomass Composition of *Saccharomyces cerevisiae* to Model Wine Fermentations Using a Genome-Scale Model
Ardic Arikal, University of California, Davis

Protection of Wine from Protein Haze Using *Schizosaccharomyces japonicus* Glycoproteins
Paola Domizio, Università degli Studi di Firenze, Italy

Viticulture—Managing Vineyard Pests and Weeds Session (research reports)

1:30 pm–2:50 pm

MODERATOR:

Renee Threlfall, University of Arkansas, Fayetteville

SPEAKERS:

Vineyard Problem Management Recommendations: The Vineyard Advisor Mobile App
Edward Hellman, Texas Tech University, Lubbock

Cultivar Susceptibility to the Botryosphaeria Dieback and the Relationship to Biochemical Differences in the Wood
Erin Galarneau, University of California, Davis

Ounce of Prevention or Pound of Cure: A Comparison of Preventative Practices and Vine Surgery for Trunk-Disease Control
Jonathan Kaplan, California State University, Sacramento

ORAL SESSIONS & PRESENTATIONS (CONTINUED)

Herbicide Reduction Through Organic Undervine Treatment and Its Impact on Malbec Wine Volatile Composition
Kenneth Olejar, Lincoln University, New Zealand

2019 ASEV Keynote Presentation



3:05 pm–3:35 pm

Contextual Research Technological Developments to Unlock Consumer Wine-related Behavior and Preference Information during Diverse Consumption Occasions
Dr. Susan Bastian, The University of Adelaide, Australia

Enology—Wine Chemistry: Oxidation & Aging Session (research reports)

3:50 pm–4:50 pm

MODERATOR:

Tom Collins, Washington State University, Tri-Cities

PROGRAM:

Identification of Novel Hydroxy Ketones in Must and Red Wine: Understanding the Formation of Premature Aging Markers
Ana Peterson, University of Bordeaux, France

Alternative Reaction Mechanism for Iron(II)/Oxygen Consumption in Wine-like Conditions
Robert Coleman, University of California, Davis

Elemental Analysis of the Changes in Metal Profiles during Winemaking
Courtney Tanabe, University of California, Davis

Viticulture—Fruit Composition and Yield Session (research reports)

3:50 pm–4:50 pm

MODERATOR:

Russell Moss, Cornell University, New York

PROGRAM:

Autonomous Predictions of Vineyard Yield Through Machine-Learning Modeling of Remote-Sensing and Historical Data
Luca Brillante, California State University, Fresno

Impact of Sunburn on Ripeness and Concentration of Volatile Aromatic Compounds in Muscat of Alexandria Vineyards
Arturo Calderón-Orellana, Universidad de Concepción, Chile

Late-Season Climatic and Physiological Factors Interact to Influence Rotundone in Cool-climate Noiret Winegrapes
Andrew Harner, The Pennsylvania State University, State College

THURSDAY, JUNE 20

Enology—Wine Macromolecules Session (research reports)

8:00 am–9:00 am

MODERATOR:

Anita Oberholster, University of California, Davis

PROGRAM:

The Secret Life of Wine Macromolecules
Keren Bindon, The Australian Wine Research Institute, Australia

Diversity of Total Carbohydrate Composition in Red Wine Polysaccharides in Several Pinot noirs and Other Varieties
Ludwig Ring, Oregon State University, Corvallis

Understanding the Deconstruction of Cabernet Sauvignon Grape Cell Walls during Winemaking Using Glycan Microarrays
John Paul Moore, Stellenbosch University, South Africa

Viticulture—Crop Load Management Session (research reports)

8:00 am–9:00 am

MODERATOR:

Patty Skinkis, Oregon State University, Corvallis

PROGRAM:

Impact of Crop Load Management on Terpene Concentration of Gewürztraminer Grapes in the Okanagan Valley
Yevgen Kovalenko, The University of British Columbia, Canada

Enhanced Fruit Technological Maturity and Altered Flavonoid Metabolic Profile in Merlot by Early Mechanical Defoliation
Joshua VanderWeide, Michigan State University, Lansing

Multi-Year Study of the Effects of Cluster Thinning on Vine Performance and Fruit and Wine Composition of Pinot noir
Paul Mawdsley, California Polytechnic State University, San Luis Obispo

2019 ASEV Merit Award Presentation



9:15 am–10:15 am

Grape and Wine Industry, Research, Extension and Education: It Takes Villages
Dr. Sara Spayd, North Carolina State University, Raleigh, Emerita

Enology—Wine Stability Session (research reports)

10:15 am–11:15 am

MODERATOR:

Jim Harbertson, Washington State University, Tri-Cities

PROGRAM:

Impact of Glutathione-Rich Inactivated Yeast on Wine Stability
Florian Bahut, University Bourgogne Franche-Comté, France

ORAL SESSIONS & PRESENTATIONS (CONTINUED)

Interactions of Polymeric Compounds in Wine and Potential Benefits of Polysaccharide Addition
Stephan Sommer, California State University, Fresno

Monitoring the Polymerization of Red Wine Polyphenols with ¹³C-Labeled Acetaldehyde
Fabian Weber, University of Bonn, Germany

Viticulture—Breeding & Rootstocks Session (research reports)

10:15 am–11:15 am

MODERATOR:

Lise Asimont, Cakebread Cellars, California

PROGRAM:

Growth Chamber Analysis of Dormancy Acclimation Responses within NDSU Grape Germplasm
Andrej Svyantek, North Dakota State University, Fargo

Genetic Determination of Vegetative Vigor in a Ramsey x Riparia GM Population
Ines Hugalde, INTA EEA Mendoza, Argentina and University of California, Davis

Field Evaluation of Seven Rootstocks under the Saline Condition of the San Joaquin Valley of California
Shijian Zhuang, University of California Cooperative Extension, Fresno County

2019 AJEV Best Enology Paper Author Presentation

11:30 am–Noon

Impact of Yeast Flocculation and Biofilm Formation on Yeast-Fungus Co-adhesion in a Novel Immobilization System
Jaime Moreno-García, University of Córdoba, Spain

*AJEV Best Enology Paper Award sponsored by:
J. Lohr Vineyards & Wines*

J. LOHR
VINEYARDS & WINES

Enology—Vineyard & Winery Impacts on Wine Sensory Session (research reports—includes three flash talk presentations)

1:10 pm–2:30 pm

MODERATOR:

Scott Frost, Washington State University, Tri-Cities

PROGRAM:

The Importance of Nitrogen Source: Vineyard versus Winery Nitrogen Impacts on Chardonnay and Pinot noir Wine Sensory
Meghan Ruppel, Oregon State University, Corvallis

Comparing Pinot noir Wine Sensory Perception and Yield: A Study Over Five Vintages (2012–2016)
Aubrey DuBois, Oregon State University, Corvallis

Two-Year Study of the Chemical and Sensory Effects of Whole Cluster and Dried Stem Additions in Pinot noir Wines
L. Federico Casassa, California Polytechnic State University, San Luis Obispo

- ⚡ Influence of Bunch Rot on Fermentation Kinetics and Sensory in Chardonnay and Petite Sirah
Jeremiah Loyd, California State University, Fresno
- ⚡ Effect of Antioxidant Additions at Harvest on Aroma Profiles of Pinot Gris, Chardonnay and Sauvignon blanc Wines
Xiaotong Lyu, The University of Auckland, New Zealand
- ⚡ Investigating the Fruitiness Aroma Perception of White Wines from Oregon
Angelica Iobbi, Oregon State University, Corvallis

Viticulture—Irrigation Session (research reports)

1:10 pm–2:30 pm

MODERATOR:

Cassandra Bent, Domaine Chandon, California

PROGRAM:

Phloem Contribution to Hydraulic Redistribution in Grapevines
Nataliya Shcherbatyuk, Washington State University, Prosser

Water Stress Response of Eighteen Winegrape Varieties Grown in Eastern Washington
Markus Keller, Washington State University, Prosser

Daily Minimum Leaf and Stem Water Potential in Vineyards with Vertical Shoot Positioning
Tian Tian, Oregon State University, Corvallis

Grapevine Growth and Physiology during Heat and Drought Stress and Recovery
Esther Hernández-Montes, Washington State University, Prosser

2019 AJEV Best Viticulture Paper Author Presentation

2:45 pm–3:15 pm

Nitrogen Requirements of Pinot noir Based on Growth Parameters, Must Composition, and Fermentation Behavior
R. Paul Schreiner, USDA-ARS-Horticultural Crops Research Unit, Oregon

*AJEV Best Viticulture Paper sponsored by:
J. Lohr Vineyards & Wines*

J. LOHR
VINEYARDS & WINES

⚡ Student Flash Talks

POSTER SESSIONS (RESEARCH REPORTS)

⚡ Student Flash Talks

Research presentations (oral and poster) are based on submitted abstracts and represent work in progress and final research. The abstracts are available online now. Visit www.asev.org to view abstracts within each session.

WEDNESDAY, JUNE 19

7:30 am–11:45 am & 1:30 pm–7:30 pm

Authors present their poster research during Regional Wine Reception (6:00 pm–7:30 pm) in the Grand Ballroom

CHAIR:

Leticia Chacón-Rodríguez, University of California, Davis

Enology & Viticulture Research Report Posters

- ⚡ Investigating Filtration Efficiency and Potential Quality Impact of Membrane Filters on Wine
Margarita Postoronca, University of California, Davis
Flash Talk: June 19, 2019, 5:44:00 pm
- Effect of Organic, Biodynamic, and Conventional Production Processes on the Quality of a Typical Wine
Monica Picchi, University of Florence, Italy
- Residue Behavior of Organochlorine Pesticides during Wine Production
Duan Jing, Northwest A&F University, China
- Prefermentation Removal of *Labrusca*-type Odorants
Demetra Perry, Cornell University, New York
- Preliminary Studies of Redox Titrations in Wine-like Media and Wines
Robert Coleman, Treasury Wine Estates, California
- ⚡ Evaluating Wine Oxidation Using Spectrophotometric Iron Speciation
Thi Nguyen, University of California, Davis
Flash Talk: June 19, 2019, 5:40:45 pm
- Elemental Analysis of the Effects of Grapevine Red Blotch Disease in Wine
Courtney Tanabe, University of California, Davis
- Prefermentation Skin Contact Temperatures on Aroma Compounds in White Wines Made from La Crescent Grape
Somchai Rice, Iowa State University, Ames
- Preliminary Findings of Flash Détente Treatment on Marquette Grapes: Wine Chemical and Aroma Analysis
Somchai Rice, Iowa State University, Ames
- ⚡ Influence of Bunch Rot on Fermentation Kinetics and Sensory in Chardonnay and Petite Sirah
Jeremiah Loyd, California State University, Fresno
Flash Talk: June 20, 2019, 2:10:00 pm
- ⚡ Effect of Antioxidant Additions at Harvest on Aroma Profiles of Pinot gris, Chardonnay and Sauvignon blanc Wines
Xiaotong Lyu, The University of Auckland, New Zealand
Flash Talk: June 20, 2019, 2:13:15 pm
- ⚡ Investigating the Fruitiness Aroma Perception of White Wines from Oregon
Angelica Iobbi, Oregon State University, Corvallis
Flash Talk: June 20, 2019, 2:16:30 pm
- Chemical and Sensory Characterization of Sangiovese Wines from Italy and California
Valentina Canuti, University of Florence, Italy
- Sensory Profiles for Two Consecutive Years of 12 US West Coast Pinot noir Wines from Different Vineyard Locations
Annegret Cantu, University of California, Davis
- Aging Profiles of Four Wine Varieties Stored under Four Different Wine Closures for Three Years
Annegret Cantu, University of California, Davis
- ⚡ Autonomic Nervous System Responses as a New Sensory Tool to Predict Wine Odorant Valence
Lorena Hernandez, California State University, Fresno
Flash Talk: June 19, 2019, 5:31:00 pm
- ⚡ An In-depth Analysis of the Validity of Signal Detection Methods in Wine Sensory Analysis
Rachel Hahn, Oregon State University, Corvallis
Flash Talk: June 19, 2019, 5:34:15 pm
- Cherry to Vanilla: Lignin a Resilient Story of Bourbon Barrels
Jarrad Gollihue, University of Kentucky, Lexington
- Evaluating the Influence of White Rot Fungi on Volatiles Produced by *Quercus alba* Barrel Staves
Jarrad Gollihue, University of Kentucky, Lexington
- ⚡ Chemical Effects of Three Barrel-Bending Alternatives during the Aging of Cabernet Sauvignon Wines in French Oak Barrels
Gabriel Ceja, California Polytechnic State University, San Luis Obispo
Flash Talk: June 19, 2019, 5:37:30 pm
- ⚡ Two-year Study of the Effects of Berry Size and Manipulations of Fermentation Solids in Zinfandel Grapes and Wines
Daniel Postiglione, California Polytechnic State University, San Luis Obispo
Flash Talk: June 19, 2019, 5:21:15 pm
- ⚡ Cofermentation, Post-alcoholic and Post-malolactic Fermentation Blending of Malbec and Merlot Wines
Armando Vega-Osorno, California Polytechnic State University, San Luis Obispo
Flash Talk: June 19, 2019, 5:24:30 pm
- Grape Skin Insoluble Polysaccharides Affect Red Wine Polyphenol Concentration during Fermentation
Eri Inoue, University of Yamanashi, Japan
- Concentrations of BSA-Precipitable and BSA-Nonprecipitable Tannins in Japanese Wines
Tohru Okuda, University of Yamanashi, Japan
- Grape Susceptibility to Smoke Taint at Various Developmental Stages
P. Layton Ashmore, Washington State University, Tri-Cities
- Survey of Grape Berry Composition after a Significant Smoke Exposure Event
Alexandra Arteritano, Washington State University, Tri-Cities
- ⚡ Investigation of Different Winemaking Protocols to Mitigate Smoke Taint Character in Wine
Sandra Dominguez Suarez, University of California, Davis
Flash Talk: June 19, 2019, 5:27:45 pm
- Wildfires in the South Region of Chile: Lessons and Unanswered Questions from the 2017 Mega Wildfire
Ignacio Serra, Universidad de Concepción, Chile
- Enzymatic Oxidation of Smoke Taint-Associated Compounds with Polyphenol Oxidase (PPO)
Madeleine Higgins, Washington State University, Tri-Cities
- UHPLC/Q-TOF Characterization of Volatile-Phenol Glycosides in Smoke-Affected Cabernet Sauvignon Grapes during Winemaking
Andrew Caffrey, University of California, Davis

POSTER SESSIONS (RESEARCH REPORTS—CONTINUED)

Analysis of Monoterpene Alcohols and Glycosides during the Fermentation of Grapes using UHPLC Q-TOF MS and HS-SPME-GC/MS
Andrew Caffrey, University of California, Davis

Reverse Osmosis as a Method for Mitigating Smoke Taint
Ioan Pavel Gitsov, Washington State University, Tri-Cities

⚡ Characterization of Vineyard-Associated *Saccharomyces* spp. and Phenolic Profiles of Pinot noir Grapes in Okanagan Valley
Elaine Cheng, The University of British Columbia, Canada
Flash Talk: June 19, 2019, 5:18:00 pm

⚡ Revealing the Metabolomics of Yeast and Filamentous Fungus in Yeast Biocapsules: A Yeast Immobilization System for Wine
Minami Ogawa, University of Cordoba, Spain
Flash Talk: June 19, 2019, 5:14:45 pm

Population Genomics of *Brettanomyces bruxellensis* Isolates from New Zealand
Kevin Pigao, Oregon State University, Corvallis
Flash Talk: June 19, 2019, 5:11:30 pm

⚡ Differences in Lipid Content and Fatty Acid Composition of Pinot noir Wines from Selected Wine Regions
Quynh Phan, Oregon State University, Corvallis
Flash Talk: June 19, 2019, 5:08:15 pm

⚡ Yeast and Bacterial Inoculation Influence the Microbial Communities and Sensory Profiles of Barrel-fermented Chardonnay
Sydney Morgan, The University of British Columbia, Canada
Flash Talk: June 19, 2019, 5:05:00 pm

⚡ Optimizing the Use of Cleaning and Sanitizing Agents for Managing Common Spoilage Microorganisms and Fermentation Soils
Cory Marx, University of California, Davis
Flash Talk: June 19, 2019, 5:47:15 pm

Effect of Oxygen on Fermentation Activity and Aroma in Mixed Starters of *Hanseniaspora vineae*/*Saccharomyces cerevisiae*
Guoliang Yan, University of California, Davis and China Agricultural University

Volatile Organic Compounds in Wines Produced by Novel Yeasts from the Chihuahuan Desert
Isaela Villalpando, Centro de Investigación para los Recursos Naturales, Mexico

Implementation of a Rapid Antibody-Based Method to Detect Microorganisms Throughout the Winemaking Process
Friederike Rex, DLR-Rheinfalz, Germany

Impacts of Non-*Saccharomyces* Yeasts on Chemical and Sensory Attributes of Merlot Wine with Reduced Amounts of Alcohol
Charles Edwards, Washington State University, Pullman

Indigenous *Saccharomyces* Strains Produce Unique Secondary Metabolite Profiles during Controlled Chardonnay Fermentations
Sarah Lyons, The University of British Columbia, Canada

Impact of Glutathione-Rich Inactivated Yeast on Wine Chemical Diversity
Florian Bahut, University Bourgogne Franche-Comté, France

Proteolytic Activity of *Oenococcus oeni* Isolated from Tucumán, Argentina Wines
Pedro Adrian Aredes Fernandez, Universidad Nacional de Tucumán, Argentina

Histamine Production by Lactic Acid Bacteria from Tucuman Wines: Development of a New Colorimetric Method
Pedro Adrian Aredes Fernandez, Universidad Nacional de Tucumán, Argentina

Antiochratoxic Activity of Antifungal Metabolites from *Macfadyena cynanchoides*
Pedro Adrian Aredes Fernandez, Universidad Nacional de Tucumán, Argentina

New and Inexpensive Culture Medium for an Optimal *Oenococcus oeni* Biomass Production with Advantages for Starters Implantation
Pedro Adrian Aredes Fernández, Universidad Nacional de Tucumán, Argentina

Microvinification as a Method for Predicting Smoke Taint in Wine
Glenn McGourty, University of California Cooperative Extension, Mendocino County

Understanding and Controlling Ice-Nucleating Bacteria to Prevent Frost in Vineyards
Glenn McGourty, University of California Cooperative Extension, Mendocino County

Analyses of Smoke-Tainted Wine Using Simultaneous Absorbance-Transmittance and Fluorescence Excitation-Emission Mapping
Adam Gilmore, HORIBA Instruments Inc., New Jersey

Impact of Oxygen on Wine during Aging in Oak Barrels
Andrei Prida, Tonnellerie Seguin Moreau, France

Hydrogen Sulfide Generation from Sulfur Dioxide in the Presence of Aluminum in Acidic Solutions Such as Wine and Cider
Brent Trela, Ball Corporation, Colorado

Effects of Prefermentation Additions on Yeast Volatile Aromas and Thiols in Sauvignon blanc and Chardonnay
Federico Tondini, AEB Biochemical USA, California

Comparison of Nitrogen Uptake, Fermentation, Dynamics, Efficiency, and Sensory Factors in Wine Depending on Production Method
Carsten Heinemeyer, 2B FermControl GmbH, Germany

Foliar Urea Application to Increase Berry Yeast Assimilable Nitrogen in Cabernet franc and Sauvignon blanc
Kevin Usher, Agriculture and Agri-Food Canada

Phenological Shoot Autonomy in Grapevines
Michael Sipiora, Treasury Wine Estates, California

Integration of Vermicompost and Vermicompost Tea for Soil and Plant Health Management in Semiarid Vineyards
Mehdi Sharifi, Agriculture and Agri-Food Canada

Improvement of Sugar Accumulation using Double-Variety Grafting under Mesic Conditions
Kazuhiro Nishioka, The University of Tokyo, Japan

⚡ The Effect of Vineyard Site and Wine Age in the Aromatic Profile of Pinot noir Wines
Isadora Frias, University of California, Davis
Flash Talk: June 19, 2019, 5:31:00 pm

Impact of Cluster Thinning on Marketability Attributes of Table Grapes Grown in a High Tunnel System
Renee Threlfall, University of Arkansas, Fayetteville

Leaf Area to Crop Load Ratio Only Affects Berry Ripening After Two Years of Treatments
Johann Martínez-Lüscher, University of California, Davis



Blue Light-Emitting Diode (LED) Irradiation Accelerates Coloring of Winegrapes
Sumire Chujo, Meijo University, Japan

Preventing Smoke Taint in the Vineyard
Matthew Noestheden, Supra Research and Development, Canada

⚡ Fire, Water, and Wine: Effects of the North Bay Wildfires on Napa Valley Vineyard Soil Carbon and Sulfur Losses
Anna Hermes, University of Colorado, Boulder
Flash Talk: June 19, 2019, 5:37:30 pm

Conversion to Mechanical Pruning Maintains Fruit Composition while Reducing Labor Costs in Merlot Grape
Kaan Kurtural, University of California, Davis

POSTER SESSIONS (RESEARCH REPORTS—CONTINUED)

-  Potential Use of High-Resolution, Remotely-Sensed Images from Unmanned Aerial Vehicles in Vineyard Weed Management
Cody Drake, California State University, Fresno
Flash Talk: June 19, 2019, 5:18:00 pm
- Leveraging High Resolution Hyperspectral and Thermal UAV Imageries for Characterizing Diurnal Grapevine Physiology
Matt Maimaitiyiming, University of Missouri, Columbia
- Testing Nematode-Resistant Rootstocks for San Joaquin Valley Viticulture
Karl Lund, University of California Cooperative Extension, Madera County
-  Rapid Screening for Salt-Stress Tolerance Through Chloride-Ion Accumulation in Leaves of Wild *Vitis* spp. Rootstocks
Christopher Chen, University of California, Davis
Flash Talk: June 19, 2019, 5:05:00 pm
- Effects of Rootstocks on Merlot Winter Hardiness
Carl Bogdanoff, Agriculture and Agri-Food Canada
- Effect of Agar on Growth of Roots of Six Grapevine Rootstocks
Cecilia Agüero, University of California, Davis
-  Using Metabolomic Analysis to Characterize Volatile Compounds in Cold-Hardy Hybrid Grapes in Minnesota
Laise Moreira, University of Minnesota, Minneapolis
Flash Talk: June 19, 2019, 5:14:45 pm
- 24-Epibrassinolide-Induced Foliar Defenses against Downy Mildew in Cabernet Sauvignon and Ecolly
Xuefei Wang, Northwest A&F University, China
- Early Manual and Mechanical Leaf Removal as a Strategy to Improve Ripening and Lower Cluster Rot Disease in Pinot grigio
Josh VanderWeide, Michigan State University, East Lansing
- Characterization of Pierce's Disease Resistance in b41-13, an Accession Collected from Tamaulipas, Mexico
Summaira Riaz, University of California, Davis
- Comparative Sequence Analysis of the PD Resistance Locus *pdrl* in Two Resistant Accessions: b43-17 and b40-14
Summaira Riaz, University of California, Davis
-  *Drosophila* Egg and Larval Stages Cause Sour Rot Symptoms at Same Rate as Adults
Patrick Kenney, University of Missouri, Columbia
Flash Talk: June 19, 2019, 5:27:45 pm
- Impacts of Viral Diseases in Field-Grafted Vineyards in Washington State
Sridhar Jarugula, Washington State University, Prosser
-  Search for New Sources of Resistance to Pierce's Disease: Characterization of the PD Resistant Accession b46-43
Karla Huerta-Acosta, University of California, Davis
Flash Talk: June 19, 2019, 5:11:30 pm
-  Powdery Mildew Resistance Varies in Western United States *Vitis* Accessions
Laila Fayyaz, University of California, Davis
Flash Talk: June 19, 2019, 5:08:15 pm
- Supplemental Vineyard Inputs May Partially Mitigate Negative Effects of Grapevine Red Blotch Disease in Pinot noir
Cody Copp, Oregon State University, Corvallis
- Occurrence of Economically Detrimental Viruses in Certified Nurseries and Commercial Vineyards in Washington State
Nomatter Chingandu, Washington State University, Tri-Cities
- Outreach for California's Grapevine Certification Program and Area-Wide Management of Grapevine Virus Diseases
Kamyar Aram, University of California, Davis
- Red Blotch Disease Under the Microscope: Symptomatology of the Infection
Bhaskar Bondada, Washington State University, Tri-Cities
- Stomatal Conductance as a Guide to Scheduling Irrigation in Grapevine
Bhaskar Bondada, Washington State University, Tri-Cities
- Performance of DRZ Deep Subsurface Drip Irrigation for Stabilizing Grape Quality and Yield
Pete Jacoby, Washington State University, Pullman
- Effects of Soil and Topography on Water Status of Chardonnay and Meta-Analysis of the $\delta^{13}\text{C}$ /Water Potentials Correlation
Luca Brillante, California State University, Fresno
- Deficit Irrigation and Mechanical Leafing on Yield, Berry and Wine Composition of Cabernet Sauvignon Grown in California
Shijian Zhuang, University of California Cooperative Extension, Fresno County
- Impact of Mechanical Leafing on Yield and Berry Composition of Ruby Cabernet Grown in the San Joaquin Valley, California
Shijian Zhuang, University of California Cooperative Extension, Fresno County
- Mist-type Evaporative Cooling System to Control Grapevine Canopy Temperature during Heat Waves
Ben-Min Chang, Washington State University, Prosser
-  Site Delineation by Plant Water Status and Sugar $\delta^{13}\text{C}$ Analysis in a Fully Mechanized Vineyard in Napa County
Runze Yu, University of California, Davis
Flash Talk: June 19, 2019, 5:21:15 pm
- Micro-Tensiometer Sensor for Continuous Monitoring of Stem Water Potential in Grapevines
Ken Shackel, University of California, Davis
-  Meta-Analysis of Plant Water Relations in California Vineyards
Matteo Ramagli, California State University, Fresno
Flash Talk: June 19, 2019, 5:34:15 pm
- Prediction of Phenological Stages and Cultivating Support System for Winegrapes in Japan
Manabu Nemoto, National Agriculture and Food Research Organization, Japan
- Sulfur: A Broad Perspective on Why It's Time to Optimize Applications in Winegrowing
Eve-Lyn Hinckley, University of Colorado, Boulder
-  Trends in Long-Term Winegrape Phenology: Can They Be Explained by Changes in Microclimate?
Chiara Forrester, University of Colorado, Boulder
Flash Talk: June 19, 2019, 5:24:30 pm
- Impact of Foliar Inactive Dry Yeast Application to Chambourcin Grapevines on Wine Anthocyanin Content
Sarah Mayfield, University of Arkansas, Fayetteville
- Impact of Foliar Grapevine Application of an Inactive Dry Yeast on Chambourcin Grapes from Veraison to Harvest
Sarah Mayfield, University of Arkansas, Fayetteville
- Using Machine Learning to Predict Sugar Levels in Winegrapes
Mor Doron, Trellis Inc., Israel
- New Application for the Improvement of Vineyard Growth Parameters Through the Reactivation of the Soil Microbiome
John Jaeger, Enartis, California

STUDENT FLASH TALKS

Some student Authors have been assigned oral, 3.25-minute Flash Talks. These “flash” presentations will provide additional opportunities for interaction between conference attendees and student researchers.

WEDNESDAY, JUNE 19

5:05 pm—6:00 pm

Enology

MODERATOR:

Caroline Merrell, Jackson Family Wines, California
(Listed in presentation order)

FLASH TALK PRESENTERS:

Yeast and Bacterial Inoculation Influence the Microbial Communities and Sensory Profiles of Barrel-Fermented Chardonnay
Sydney Morgan, The University of British Columbia, Canada

Differences in Lipid Content and Fatty Acid Composition of Pinot noir Wines from Selected Wine Regions
Quynh Phan, Oregon State University, Corvallis

Population Genomics of *Brettanomyces bruxellensis* Isolates from New Zealand
Kevin Pigao, Oregon State University, Corvallis

Revealing the Metabolomics of Yeast and Filamentous Fungus in Yeast Biocapsules: A Yeast Immobilization System for Wine
Minami Ogawa, University of Cordoba, Spain

Characterization of Vineyard-Associated *Saccharomyces* spp. and Phenolic Profiles of Pinot noir Grapes in Okanagan Valley
Elaine Cheng, The University of British Columbia, Canada

Two-Year Study of the Effects of Berry Size and Manipulations of Fermentation Solids in Zinfandel Grapes and Wines
Daniel Postiglione, California Polytechnic State University, San Luis Obispo

Cofefermentation, Post-Alcoholic, and Post-Malolactic Fermentation Blending of Malbec and Merlot Wines
Armando Vega-Osorno, California Polytechnic State University, San Luis Obispo

Investigation of Different Winemaking Protocols to Mitigate Smoke Taint Character in Wine
Sandra Dominguez Suarez, University of California, Davis

Autonomic Nervous System Responses as a New Sensory Tool to Predict Wine Odorant Valence
Lorena Hernandez, California State University, Fresno

An In-depth Analysis of the Validity of Signal Detection Methods in Wine Sensory Analysis
Rachel Hahn, Oregon State University, Corvallis

Chemical Effects of Three Barrel Bending Alternatives during the Aging of Cabernet Sauvignon Wines in French Oak Barrels
Gabriel Ceja, California Polytechnic State University, San Luis Obispo

Evaluating Wine Oxidation Using Spectrophotometric Iron Speciation
Thi Nguyen, University of California, Davis

Investigating Filtration Efficiency and Potential Quality Impact of Membrane Filters on Wine
Margarita Postoronca, University of California, Davis

Optimizing the Use of Cleaning and Sanitizing Agents for Managing Common Spoilage Microorganisms and Fermentation Soils
Cory Marx, University of California, Davis

Viticulture

MODERATOR:

Andy Walker, University of California, Davis
(Listed in presentation order)

FLASH TALK PRESENTERS:

Salt-Stress Tolerance Through Chloride-Ion Accumulation in Leaves of Wild *Vitis* spp. Rootstocks
Christopher Chen, University of California, Davis

Powdery Mildew Resistance Varies in Western US *Vitis* Accession
Laila Fayyaz, University of California, Davis

Search for New Sources of Resistance to Pierce's Disease: Characterization of the Pd Resistant Accession b46-43
Karla Huerta-Acosta, University of California, Davis

Using Metabolomic Analysis to Characterize Volatile Compounds in Cold-hardy Hybrid Grapes in Minnesota
Laise Moreira, University of Minnesota, Minneapolis

Potential use of High-Resolution Remotely Sensed Images from Unmanned Aerial Vehicles in Vineyard Weed Management
Cody Drake, California State University, Fresno

Site Delineation by Plant Water Status and Sugar $\delta^{13}C$ Analysis in a Fully Mechanized Vineyard in Napa County
Runze Yu, University of California, Davis

Trends in Long Term Winegrape Phenology: Can They Be Explained by Changes in Microclimate?
Chiara Forrester, University of Colorado, Boulder

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Meta-analysis of Plant Water Relations in California Vineyards
Matteo Ramagli, California State University, Fresno

Fire, Water, and Wine: Effects of the North Bay Wildfires on Napa Valley Vineyard Soil Carbon and Sulfur Losses
Anna Hermes, University of Colorado, Boulder

**THURSDAY, JUNE 20
(INCLUDED IN ENOLOGY—VINEYARD & WINERY
IMPACTS ON WINE SENSORY SESSION)**

2:10 pm—2:20 pm

Enology

MODERATOR:

Scott Frost, Washington State University, Tri-Cities
(Listed in presentation order)

FLASH TALK PRESENTERS:

Influence of Bunch Rot on Fermentation Kinetics and Sensory in Chardonnay and Petite Sirah
Jeremiah Loyd, California State University, Fresno

Effect of Antioxidant Additions at Harvest on Aroma Profiles of Pinot gris, Chardonnay and Sauvignon blanc Wines
Xiaotong Lyu, The University of Auckland, New Zealand

Investigating the Fruitiness Aroma Perception of White Wines from Oregon
Angelica Iobbi, Oregon State University, Corvallis

OUTREACH SEMINAR

Join us for the annual regional Outreach Seminar at the 2019 ASEV National Conference that will focus on current issues in the wine and grape industry.

THURSDAY, JUNE 20

3:30 pm–5:00 pm

CHAIR:

Terry Bates, Cornell University, New York

The USDA-NIFA-SCRI “Efficient Vineyard” Project

Precision Vineyard Management: Collecting and Interpreting Spatial Data for Variable Vineyard Management

CHAIR:

Terry Bates, Cornell University, New York

PROGRAM:

Welcome & Project Overview

Terry Bates, Cornell University, New York

Developing a Robust Image Sensing and Processing Solution for Vineyard applications

George Kantor, Carnegie Mellon Robotics Institute, Pennsylvania

GeoVit: Spatial Data Processing Software for turning Sensor Data into Viticulture Information

James Taylor, IRSTEA, France

Spatial-data Driven Variable-rate Management in Commercial Vineyards

Terry Bates, Cornell University, New York

Economic Considerations in Adopting Precision Viticulture Technology

Olena Sambucci, University of California, Davis

Kevin Martin, Penn State University, Pennsylvania

Q&A and Closing Remarks

Terry Bates, Cornell University, New York

Supplier Display Tables are still available (at publication time)!

Contact: info@asev.org or (530) 753-3142 or visit www.asev.org for details

2019 SUPPLIER DISPLAYS:

Agri-Analysis	Herti US Inc.
AL&L Crop Solutions	Innerstave LLC
Alpine Scientific	Knights Grapevine Nursery
ATPGROUP	Koch Membrane Systems, Inc.
Cellar Master Supplies	Pellenc America
Clemens Vineyard Equipment, Inc.	TN Coopers
Della Toffola	TricorBraun WinPak
Dellavalle Laboratory	Wine Industry Network
ETS Laboratories	WiseConn Engineering
Fruition Sciences	Wonderful Nurseries
Guillaume Grapevine Nursery	
H2O Engineering, Inc.	

REGISTRATION

2019 Pre-registration Fees*

Valid through June 11

Oak Symposium

(Tuesday, June 18)

ASEV Member	\$275
Non-Member	\$375
Student Member	\$50

General Registration

(Wednesday, June 19 & Thursday, June 20)

Includes: Research reports (oral and poster), Outreach Seminar, Merit Award presentation, Poster Session, Flash Talks, Napa Valley Regional Wine Reception, and Student-Industry Mixer.

ASEV Member	\$235
Non-Member	\$460
Student Member	\$65

Early Career Member Discount: Current Professional ASEV members that were previous Student Members and have graduated within the last two years are eligible for the discounted Student Member registration fees. Please contact us for a promotional code.

CAWG Members are welcome to register at the ASEV Member rates. Please contact us for a promotional code.

*After June 11, registration fees will increase by \$75.

2 Ways to Pre-Register

1 Online

www.asev.org

2 Telephone

1 (888) 529-9272 or (415) 604-3525

The call center is open from 6:00 am to 5:00 pm (PDT), Monday through Friday. For registration changes, you may contact the call center by email (<https://asev.cmrushelp.com/>) or at the number above.

Membership Information

Save over \$300 on registration fees by becoming a member today! If you are not already a member, now is the time to join. You can apply online or download an application from our website at www.asev.org. Membership includes access to our online journals.

Pre-register by June 11 and save!

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