

# Registration & Program Guide

**JUNE 19–22, 2022**

Paradise Point Resort  
San Diego, California USA

# 73 YEARS

**Offering Programs to  
meet every level of  
technical expertise**

**Register Today  
at [asev.org](http://asev.org)**

## Program Includes

### Merit Award Presentation

Dr. Wayne Wilcox  
Cornell University, New York

### ASEV Extension Distinction Award Presentation

Mr. Chris Gerling  
Cornell University, New York

### Honorary Research Lecturer

Dr. Pat Bowen  
Agriculture & Agri-Food Canada

### Keynote Presentation

Dr. Simone D. Castellarin  
The University of British  
Columbia, Canada

### Climate Change Symposium

### Research Reports

### Student Flash Talks ⚡

### Regional Wine Reception

### Supplier Displays

### Early Career Member Lunch



AMERICAN SOCIETY  
FOR ENOLOGY AND  
VITICULTURE

# SAN DIEGO

# 73RD ASEV NATIONAL CONFERENCE

We're adding Southern California sun, San Diego ocean breezes and a taste of Temecula Valley wines to this year's ASEV National Conference. The Temecula wine region received their formal recognition as an American Viticultural Area in 1984 as "Temecula AVA" and subsequently changed its name to "Temecula Valley AVA" in 2004. Temecula Valley boasts 40 licensed wineries that produce 500,000 cases annually. From Cabernet Sauvignon and Merlot to Mourvèdre, Viognier, Chardonnay and Sauvignon blanc, the region produces more than 50 varieties of wines in approximately 995 hectares of commercial vineyards. We can't wait to share a glass with you in June!

**Please visit [www.asev.org](http://www.asev.org) for additional program, sponsorship, registration, and hotel information.**

## 2022 Merit Award Presentation

WEDNESDAY, JUNE 22, 9:15 AM - 10:00 AM



9:15 am - 10:00 am

**Dr. Wayne Wilcox**, Cornell University, New York

*Molds, Mildews, and Rots: Bread and Butter to a Grape Pathologist*

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. Wayne Wilcox of Cornell University, as ASEV's 2022 Merit Award recipient.

After an impressive career spanning nearly 35 years, Dr. Wayne Wilcox will be awarded of the American Society for Enology and Viticulture's (ASEV) highest honor, the ASEV Merit Award. Dr. Wilcox dedicated his career to researching and understanding the various factors of fruit diseases and finding ways to manage those disease through practical control programs. He will be presenting the Merit Award presentation, "Molds, Mildews, and Rots: Bread and Butter to a Grape Pathologist" at the 73rd ASEV National Conference, on June 22, in San Diego, Calif.

Always interested in fruit production, Dr. Wilcox began his research focus on the biology and management of fruit crop diseases in graduate school at the University of California at Davis. There, he received his B.S. in Plant Science as well as his M.S. and Ph.D. degrees in Plant Pathology. He joined the Department of Plant Pathology at Cornell University's New York State Agricultural Experiment Station in 1984, working with tree fruit and berry crop growers. In 1994, he assumed the role leading Cornell University's grape pathology program where he remained until his retirement in 2018.

"For me, one of my favorite things throughout my career was getting to interpret and share new findings with those who could benefit from them," said Dr. Wilcox, who often extended knowledge through oral presentations, fact sheets, newsletters, and trade publication articles. "Growers have so many challenges to face, so it's very rewarding when science and research can make them more manageable. I feel honored to be recognized with this award and look forward to my participation in the conference."

Dr. Wilcox has authored and co-authored over 100 research publications in refereed journals, including three awarded Best Viticulture Paper of the Year from the American Journal of Enology and Viticulture and the Australian Journal of Grape and Wine Research. He was also the senior editor of the 2nd Edition of the Compendium of Grapevine Diseases, Pests, and Disorders (2015), for which he authored or co-authored nine individual segments.

# 2022 ASEV NATIONAL CONFERENCE OVERVIEW

All events will be held at the Paradise Point Resort and Spa.

## SUNDAY, JUNE 19

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

## MONDAY, JUNE 20

7:00 am – 5:15 pm	Registration
7:00 am – 5:15 pm	Speaker Ready Room
8:00 am – 5:15 pm	Climate Change Symposium: Part 1 – Viticulture
7:00 pm – 8:00 pm	ASEV Board Reception <i>(by invitation only)</i>
8:00 pm – 10:30 pm	ASEV Board Dinner <i>(by invitation only)</i>

## TUESDAY, JUNE 21

6:30 am – 7:00 pm	Registration
6:30 am – 7:00 pm	Speaker Ready Room
7:30 am – 11:30 am	Poster Sessions
7:50 am – 8:05 am	President's Welcome
8:05 am – 8:15 am	Temecula Valley Winegrowers Association Presentation
8:15 am – 9:55 am	Enology – General Enology Session (oral research reports)
8:15 am – 9:55 am	Viticulture – Pest Management Session (oral research reports)
10:00 am – 4:00 pm	Supplier Displays
10:15 am – 11:00 am	ASEV Extension Distinction Award Presentation <i>Of Course, There's Jalapeño in It: Enology Extension in the Craft Beverage Era</i>
11:20 am – 12:05 pm	Honorary Research Lecturer <i>Spatial Revelations: Monitoring, Imaging and Mapping to Characterize Vineyard Environments</i>
12:05 pm – 1:30 pm	Early Career Member Lunch (separate registration fee required)
1:30 pm – 7:00 pm	Poster Sessions
1:30 pm – 3:30 pm	Enology – Smoke Taint Session (oral research reports)

1:30 pm – 3:30 pm	Viticulture – Vineyard Management Research Session (oral research reports)
3:45 pm – 4:15 pm	Keynote Presentation <i>Fruit Ripening in Vitis vinifera: The Interplay between Biology and Environment</i>
4:20 pm – 5:10 pm	 Student Flash Talks – Enology (selected student poster presentations)
4:20 pm – 5:10 pm	 Student Flash Talks – Viticulture (selected student poster presentations)
5:15 pm – 6:45 pm	Poster Authors Present (research reports) & Temecula Valley Regional Wine Reception

## WEDNESDAY, JUNE 22

7:00 am – 5:00 pm	Speaker Ready Room
7:30 am – 5:00 pm	Poster Session (research reports)
8:00 am – 7:00 pm	Registration
8:00 am – 9:00 am	Enology – Aroma Compounds Session (oral research reports)
8:00 am – 9:00 am	Viticulture – Cover Crops Session (oral research reports)
9:15 am – 10:00 am	Merit Award Presentation <i>Molds, Mildews, and Rots: Bread and Butter to a Grape Pathologist</i>
10:00 am – 4:00 pm	Supplier Displays
10:15 am – 11:15 am	Enology – Microbiology: Non-Saccharomyces Session (oral research reports)
10:15 am – 11:15 am	Viticulture – Rootstock Session (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 – Tannin Management Session (oral research reports)
1:10 pm – 2:30 pm	Viticulture – Red Blotch: Virus and Vector Evaluation Session (oral research reports)
2:45 pm – 3:15 pm	AJEV Best Viticulture Paper Author Presentation
3:30 pm – 4:50 pm	Viticulture – Red Blotch: From Macro to Micro Effect Session (oral research reports)
5:00 pm – 7:00 pm	Student – Industry Mixer Reception

# SYMPOSIUM

MONDAY, JUNE 20

8:00 am – 5:15 pm

## Climate Change Symposium: Part 1 – Viticulture

This symposium will provide a comprehensive review of how climate change impacts the grape and wine industry. Topics will include three primary areas of interest, including a review of the changing conditions, the physiology behind plant response to environmental stresses of climate change, and the impacts of breeding programs designed to address production challenges that come with climate change. Presentations will address the concerns for viticulture in both cool, warm, dry and humid areas of the world. Scientists from across the US and internationally will provide a balance of theoretical and applied research.

Please join us for a one-day symposium on viticulture in 2022 with a follow-up symposium on enology impacts in 2023.

Organized by ASEV Technical Program Committee

### PROGRAM:

Program is subject to change.

## Changing Conditions – Physiology and Cultural Practices

Welcome and introduction to the Symposium

**Tom Collins**, Washington State University, Tri-Cities

**Jim Harbertson**, Washington State University, Tri-Cities

Introduction to Climate Change

**Hans Shultz**, Geisenheim University, Germany

Speaker Sponsored by E. & J. Gallo Winery



### E&J Gallo Winery

Effects of Climate Change Cool/Humid Areas

**Jason Londo**, Cornell University, New York

Effects of Climate Change Warm/Dry Areas

**Markus Keller**, Washington State University, Prosser

## Drilling in Deeper – Research in Stressors of Climate Change

Impacts of Elevated Carbon Dioxide on Grapevine Physiology and Development

**Manfred Stoll**, Geisenheim University, Germany

Impacts of Climate Change Stressors on Fruit Development

**Paul Petrie**, The University of Adelaide, Australia

Speaker Sponsored by Treasury Wine Estates



TREASURY  
WINE ESTATES

## Breeding for Climate Change – Reducing Disease and Pesticide Use

The Dangers of Limited Genetic Diversity in Grapevines

**Elizabeth Wolkovich**, University of British Columbia, Canada

Adapting with New Varieties for Reduced Pesticide Use

**Oliver Trapp**, Julius Kühn-Institut Federal Research Center for Cultivated Plants, Germany

## Oral Research Reports

### MODERATOR:

**Lise Asimont**, Foley Family of Wines, California

Sunburn Damage Assessment Under Different Levels of Sun Exposure and Temperature in Sangiovese and Pignoletto Berries

**Gianluca Allegro**, University of Bologna, Italy

Heatwave Frequency Affects Gewürztraminer Leaf Physiology and Grape Cuticular Wax Profile

**Josh VanderWeide**, The University of British Columbia, Canada

VitisGen2: Incorporating Marker Assisted Selection to Produce More Disease-Resistant and Climate-resilient Cultivars

**Timothy Martinson**, Cornell University, Geneva

Adapting Stomatal Traits to the Climate Projected for Premium and High-production California Wine Regions

**Megan Bartlett**, University of California, Davis

Fruit Zone Cooling in Wine Grapes During Heatwaves

**Ben-Min Chang**, Washington State University, Prosser

## Posters

Late-season Source Limitation Practices to Delay Ripening and Improve Color of Cabernet-Sauvignon Grapes and Wine

**Guadalupe Partida**, California State University Fresno

Mitigating Heat Wave Damage to 'Cabernet Sauvignon' Wine Grape with Partial Shading under Two Irrigation Amounts

**Kaan Kurtural**, University of California, Davis

Optimal Ranges and Thresholds of Grape Berry Solar Radiation for Flavonoid Biosynthesis in Warm Climates

**Kaan Kurtural**, University of California, Davis

## Wrap Up

**Jim Harbertson**, Washington State University, Tri-Cities

## Symposium Sponsors:



Platinum



E&J Gallo Winery

International Speaker  
Dr. Hans Schultz



TREASURY  
WINE ESTATES

International Speaker  
Dr. Paul Petrie



AM Coffee Break



PM Coffee Break

# RESEARCH REPORTS – ORAL SESSIONS

Research presentations (oral and poster) are based on submitted abstracts and represent work in progress and final research.

## TUESDAY, JUNE 21

7:50 am – 8:05 am

President's Welcome

8:05 am – 8:15 am

Temecula Valley Winegrowers Association Presentation

### Enology – General Enology Session (research reports)

8:15 am – 9:55 am

#### MODERATOR:

**Renee Threlfall**, University of Arkansas, Fayetteville

#### PROGRAM:

Rationale for the Evaluation of the Antioxidant Capacity Related to Inactivated Dry Yeasts Nucleophilic Composition  
**Florian Bahut**, Lallemand, France

H<sub>2</sub>S Formation during Wine Storage in Aluminum Beverage Cans - Effects of Wine Composition and Liner Type  
**Austin Montgomery**, Cornell University, New York

Seeded Search Estimation Algorithm for the On-line Prediction of Wine Fermentation  
**James Nelson**, University of California, Davis

Chemical and Temporal Sensory Effects Post-expectoration in Co-fermented and Blended Merlot, Malbec, and Petite Sirah  
**Emily Stoffel**, California Polytechnic State University, San Luis Obispo

Investigation of Pre- and Post-fermentation Alcohol Adjustments on Sauvignon blanc Wines Harvested at Three Maturities  
**Danielle Fox**, Washington State University, Tri-Cities

### Viticulture – Pest Management Session (research reports)

8:15 am – 9:55 am

#### MODERATOR:

**Katherine East**, Washington State University, Prosser

#### PROGRAM:

Illuminating Ultraviolet-C Light for Grapevine Powdery Mildew Management  
**Alexa McDaniel**, Washington State University, Prosser

Examining Sulfur Use Patterns in Western USA Winegrape Vineyards  
**Charlotte Oliver**, Washington State University, Prosser

Developing a Method for Transgene-Free Gene-Edited Grapevine  
**Laurent Deluc**, Oregon State University, Corvallis

Efficacy of Minimal-, Moderate-, and High-input Disease Management Systems for Pierce's Disease Resistant Hybrids  
**Shane Breeden**, University of Georgia, Athens

Comparison of Insecticides to Control Vine Mealybugs (*Planococcus ficus* Signoret) in Organic Wine Grape Production  
**Luca Brillante**, California State University, Fresno

### 2022 ASEV Extension Distinction Award Presentation



10:15 am – 11:00 am

Of Course, There's Jalapeño in It: Enology Extension in the Craft Beverage Era  
**Chris Gerling**, Cornell University, New York

### 2022 Honorary Research Lecturer



11:20 am – 12:05 pm

Spatial Revelations: Monitoring, Imaging and Mapping to Characterize Vineyard Environments  
**Dr. Pat Bowen**, Agriculture & Agri-Food Canada

### Enology – Smoke Taint Session (research reports)

1:30 pm – 3:30 pm

#### MODERATOR:

**Elizabeth Tomasino**, Oregon State University, Corvallis

#### PROGRAM:

Evaluation of Smoke Compounds in Wine Derived from 13C-Labelled Smoke

**D. Cole Cerrato**, Oregon State University, Corvallis

Profiling Volatile Phenols in Grapes as a Tool to Track the Impact of Wildfire Smoke during Berry Development  
**Juliano Toniato**, University of California, Davis

Using a Model System to Trace Glycosidically-Bound Smoke Taint Markers from Grape to Wine  
**Yan Wen**, University of California, Davis

Evaluation of Kaolin and Bentonite Adsorptive Sprays to Reduce the Uptake of Smoke Related Compounds during Smoke Exposure Events

**Tom Collins**, Washington State University, Tri-Cities

Functionality of Different Inter-Stimulus Protocol for Sensory Analysis of Smoke Tainted Wines

**Jenna Fryer**, Oregon State University, Corvallis

Olfactory Detection Thresholds for Smoke Taint in Red Wine  
**Miguel Pedroza**, California State University, Fresno

### Viticulture – Vineyard Management Research Session (research reports)

1:30 pm – 3:30 pm

#### MODERATOR:

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

#### PROGRAM:

Comparison of Planting Stock on the Early Growth and Productivity of Chardonnay Grapevines

**Larry Bettiga**, University of California Cooperative Extension

# RESEARCH REPORTS – ORAL SESSIONS (CONTINUED)

Vineyard Nutrition: Reevaluation of Sampling Protocols  
**Nataliya Shcherbatyuk**, Washington State University, Prosser

The Effect of Irrigation on Dry Farmed Vitis Vinifera L. cv. Zinfandel as a Function of Vine Age  
**Jean C. Dodson Peterson**, California Polytechnic State University, San Luis Obispo

Predawn Leaf Water Potential is a Good Proxy for Dry but Not for Wet Soil Water Potential  
**Thomas Groenveld**, Washington State University, Prosser

Convective Mass Transfer: A New Model for Estimating Evapotranspiration Using Proximal Sensing Data  
**Matthew Jenkins**, University of California, Davis

Subsurface Irrigation to Reduce Weed Management Costs, Chemical Use, and to Improve Irrigation Efficiency  
**Mark Krasnow**, Thoughtful Viticulture Ltd., New Zealand

Effects of No-till Systems and Perennial Cover Crops on Soil Microbiome Composition in the San Joaquin Valley  
**Maria Zumkeller**, University of California, Davis

Cover Crop Alternatives for Nematode Management in Washington Vineyards  
**Bernadette Gagnier**, Washington State University, Prosser

## 2022 ASEV Merit Award Presentation



9:15 am – 10:00 am

Molds, Mildews, and Rots: Bread and Butter to a Grape Pathologist  
**Dr. Wayne Wilcox**, Cornell University, New York

## 2022 ASEV Keynote Presentation



3:45 pm – 4:15 pm

Fruit Ripening in Vitis vinifera: The Interplay between Biology and Environment  
**Dr. Simone D. Castellarin**, The University of British Columbia, Canada

## ORAL SESSIONS – WEDNESDAY, JUNE 22

### Enology – Wine Macromolecules Session (research reports)

8:00 am – 9:00 am

**MODERATOR:**  
**Anna Katharine Mansfield**, Cornell University, New York

**PROGRAM:**  
Influence of Liqueur de Dosage Sugar-type on the Development of Maillard Reaction-associated Products in Sparkling Wine  
**Hannah Charnock**, Brock University, Canada

Achieving Tropical Fruit Aromas in White Wine Through Innovative Winemaking Processes  
**Angelica Lobbi**, Oregon State University, Corvallis

Influence of Rose Oxide Enantiomers, Linalool and  $\alpha$ -Terpineol to Gewürztraminer Wine Aroma  
**Mildred Melina Chigo-Hernandez**, Oregon State University, Corvallis

### Viticulture – Cover Crops Session (research reports)

8:00 am – 9:00 am

**MODERATOR:**  
**Patty Skinkis**, Oregon State University, Corvallis

**PROGRAM:**  
Impacts of Native and Introduced Cover Crops on Soil Health in a Table Grape Vineyard of the San Joaquin Valley  
**Margaret Fernando**, California State University, Fresno

### Enology – Microbiology: Non-Saccharomyces Session (research reports)

10:15 am – 11:15 am

**MODERATOR:**  
**Nichola Hall**, Scott Laboratories, California

**PROGRAM:**  
Optimization of Temperature and Sulfur Dioxide Levels for Non-saccharomyces Yeast Survivability and Metabolism  
**Heather Carbon**, Washington State University, Pullman

Use of Sulfur Dioxide and Non-saccharomyces Yeast to Reduce Ethyl Acetate Production During Pre-fermentation Maceration  
**James Osborne**, Oregon State University, Corvallis

Wine Bioprotection with a Specific *M. pulcherrima*: Alternative to SO<sub>2</sub> Combining Anti-spoilage and Antioxidant Properties  
**Amandine Deroite**, Lallemand, France

### Viticulture – Rootstock Session (research reports)

10:15 am – 11:15 am

**MODERATOR:**  
**Jean Dodson Patterson**, California Polytechnic State University, San Luis Obispo

**PROGRAM:**  
Testing Nematode Resistant Rootstocks for San Joaquin Valley Viticulture  
**Karl Lund**, University of California Cooperative Extension, Merced County

Field Response of Rootstocks to Northern Root-knot Nematode  
**Michelle Moyer**, Washington State University, Prosser

Evaluating the Effects of Rootstocks on Mature, Dry Farmed Pinot noir Vines  
**Jeremy Schuster**, Oregon State University, Corvallis

# RESEARCH REPORTS – ORAL SESSIONS (CONTINUED)

## 2022 AJEV Best Enology Paper Author Presentation

11:30 am – Noon

Whole Cluster and Dried Stem Additions' Effects on Chemical and Sensory Properties of Pinot noir Wines over Two Vintages  
**L. Federico Casassa**, California Polytechnic State University, San Luis Obispo

*AJEV Best Enology Paper Award sponsored by E. & J. Gallo Winery*



E&J Gallo Winery

## Enology – Tannin Management Session (research reports)

1:10 pm – 2:30 pm

### MODERATOR:

**Jim Harbertson**, Washington State University, Tri-Cities

### PROGRAM:

Chemical and Chromatic Effects of Fermentation Temperature and Cap Management on Pinot noir Clone 667

**Paul Gannett**, California Polytechnic State University, San Luis Obispo

Chemical and Sensory Effects of Whole Cluster and Dried-stem Additions in Syrah and Tannat Wines from California  
**Isabelle LoMonaco**, California Polytechnic State University, San Luis Obispo

Role of the Tannin to Anthocyanin Ratio in the Formation of Polymeric Pigments and its Influence on Red Wine Mouthfeel  
**Ingrid Weilack**, Rheinische Friedrich-Wilhelms-Universität Bonn, Germany

Interaction Between Alcohol Concentration, Maturity and Extended Maceration Treatment on Wine Phenolic Compounds  
**Juliana Pazos**, Washington State University, Tri-Cities

## Viticulture – Red Blotch: Virus and Vector Evaluation Session (research reports)

1:10 pm – 2:30 pm

### PROGRAM:

Overcoming the Challenges to Insect-vector Disease Management: A Case Study of Leafroll and Red Blotch Diseases  
**Malcolm Hobbs**, University of California Cooperative Extension, Napa County

Characterizing the Spread of Grapevine Red Blotch Virus in the Russell Ranch Foundation Vineyard  
**Maher Al Rwahnih**, University of California, Davis

Advances in Protecting the Premier US Grape Foundation Collection  
**Maher Al Rwahnih**, University of California, Davis

Using a Model to Disrupt Three-cornered Alfalfa Hopper Life Cycles in Grapevine Red Blotch Disease Affected Areas  
**Cindy Kron**, University of California Cooperative Extension, Sonoma, Napa, Mendocino, and Lake counties

## 2022 AJEV Best Viticulture Paper Author Presentation

2:45 pm – 3:15 pm

Field Performance of Winegrape Rootstocks and Fumigation during Establishment of a Chardonnay Vineyard in Washington  
**Katherine E. East**, United States Department of Agriculture, Agricultural Research Service, Washington

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

**J. LOHR**  
VINEYARDS & WINES

## Viticulture – Red Blotch: From Macro to Micro Effect Session (research reports)

3:30 pm – 4:50 pm

### MODERATOR:

**Anita Oberholster**, University of California, Davis

### PROGRAM:

Ultrastructural and Compositional Analyses of Grapevines Infected with Red Blotch Virus  
**Bhaskar Bondada**, Washington State University, Tri-Cities

Sink Adjustments had Minimal Effects on Carbohydrate Translocation of GRBV Infected Grapevine  
**Justin Tanner**, University of California, Davis

Foliar Potassium Application Increases Fruit Total Soluble Solids in Grapevine Red Blotch Virus-infected Grapevines  
**Alexander Levin**, Oregon State University, Corvallis

Identifying Red Blotch and Leafroll Viruses in VIS/NIR Hyperspectral Images Acquired on the Ground in the Field  
**Eve Laroche-Pinel**, California State University, Fresno

# RESEARCH REPORTS – POSTER SESSIONS

TUESDAY, JUNE 21

7:30 am – 7:00 pm

Authors present their poster research during the Regional Wine Reception (5:15 pm – 6:45 pm) Tuesday, June 21, in the Sunset Ballroom

**CHAIR:**

**Leticia Chacón-Rodríguez**, University of California, Davis

## Enology & Viticulture Research Report Posters

Microbiological Impact of Different Inoculation Timings of a Dry Yeast during Winemaking Process; E2U Direct Pitching  
**Arnaud Delaherche**, Fermentis, France

An Old Player, a New Concept and a Highly Resistant Lactiplantibacillus plantarum Strain To Control MLF  
**Sibylle Krieger-Weber**, Lallemand SAS, Germany

Maximizing Varietal Thiols Revelation by an Innovative Approach of Yeast Selection  
**Anne Ortiz-Julien**, Lallemand SAS, France

Photoselective Device Accelerates Growth and Shortens Time-to-Production of Newly Planted Vines  
**Atiako Kwame Acheampong**, Opti-Harvest Inc., California

Effects of Proteinaceous Soil Bio-fertilizer Upon Vine Growth  
**Russell Moss**, Vintrepid Consulting, LLC, New York

A Trellis System with Opti-Panels Protects Vineyards from Environmental Constraints and Reduces Canopy Management Labor  
**William Peacock**, University of California Cooperative Extension, Tulare County

A Comprehensive Investigation of Root-system Impacts on Grafted Grapevines  
**Misha Kwasniewski**, The Pennsylvania State University, University Park

 First Year Effects of Vineyard Floor Management on Dry-Farmed Pinot noir Vine Performance in Different Soil Types  
**Mathew Lange**, Oregon State University, Corvallis

 Photoselective Shade Films Affect Grapevine Berry Secondary Metabolism and Wine Composition  
**Lauren Marigliano**, University of California, Davis

Calibrating Soil Health Indicators for Washington States Wine Grape Systems  
**Molly McIlquham**, Washington State University, Mount Vernon

 Comparison of Calcium-based Amendments and Their Effects on Vines and Soils. A Three-year Study in a Sodic Soil in San Joaquin Valley  
**Khushwinder Singh**, California State University Fresno

Relationships of Temperature and Precipitation with Brix and pH at Harvest in Arizona  
**Jeremy Weiss**, University of Arizona Cooperative Extension, Tucson County

Late-season Source Limitation Practices to Delay Ripening and Improve Color of Cabernet-Sauvignon Grapes and Wine  
**Guadalupe Partida**, California State University, Fresno

Mitigating Heat Wave Damage to 'Cabernet Sauvignon' Wine Grape with Partial Shading under Two Irrigation Amounts  
**Kaan Kurtural**, University of California, Davis

Optimal Ranges and Thresholds of Grape Berry Solar Radiation for Flavonoid Biosynthesis in Warm Climates  
**Kaan Kurtural**, University of California, Davis

Beta: A Novel Index of Physiological Stress in Grapevine  
**Kaan Kurtural**, University of California, Davis

 Tailoring Irrigation for White Wine Grapes in Arid Eastern Washington  
**Geraldine Diverres**, Washington State University, Prosser

Control Algae Ultrasonically in Irrigation Water Without Using Chemicals  
**George Hutchinson**, WaterIQ Technologies, Tennessee

CropManage Application for Vineyard Irrigation Decision-Support  
**Lee Johnson**, California State University, Monterey Bay

Mechanical Shaking to Reduce Bunch Rot in Grapevines  
**Mark Krasnow**, Thoughtful Viticulture Ltd., New Zealand

Vigor and Canopy Size Are Key to Irrigation Scheduling for Different Wine Grape Varieties  
**Charles Obiero**, Washington State University, Prosser

Impact of Cordon Height and Water Deficit on Yield and Berry Composition of Mechanical Pruned Grapevines in Central California  
**Shijian Zhuang**, University of California Cooperative Extension, Fresno County

Field Evaluation of Ten Pinot Gris Clones Grown in the San Joaquin Valley of California  
**Shijian Zhuang**, University of California Cooperative Extension, Fresno County

Long-Term Effects of Rootstocks on Vine Productivity and Fruit Quality in an 'Autumn King' Vineyard  
**Tian Tian**, University of California Cooperative Extension, Bakersfield County

Long Live the King (of the North): Yield Stability Analysis Unveils Critical Grapevine Production Gaps in North Dakota  
**Harlene Hatterman-Valenti**, North Dakota State University, Fargo

The King has Left the Bottle: Characterizing 'King of the North' Rosé Wines Fermented with Five Different Yeast Strains  
**Harlene Hatterman-Valenti**, North Dakota State University, Fargo

 Effect of Fermentation Temperature Gradient and Skin Contact on Ester and Thiol Production in Chardonnay Wines  
**Chase Lucas**, Oregon State University, Corvallis

A Capillary Electrophoresis Method for Measuring Free SO<sub>2</sub> in Traditional and Rosé Style Ciders  
**Philip Ashmore**, Washington State University, Tri-Cities

 Fermentation Model Parameters in Commercial-scale Wine Fermentations Using Alternative Searching Methodologies  
**James Nelson**, University of California, Davis

 The Control of Redox Potential during Wine Fermentations at Research, Pilot and Commercial Scales  
**James Nelson**, University of California, Davis

# RESEARCH REPORTS – POSTER SESSIONS (CONTINUED)

Acidity Modification in Wine Fermentations from Arkansas-grown Chambourcin Grapes using Lachancea Thermotolerans Yeast

**Amanda Fleming**, University of Arkansas, Fayetteville

- ⚡ Trans-resveratrol Derived from Cabernet Sauvignon Pruning Waste an Additional Revenue Source for Grape Growers

**David Garcia**, California State University, Fresno

Evaluating Foliar Applied Calcium Carbonate on Table Grapes and Observing Cold Storage Potential

**Leah Groves**, California State University, Fresno

- ⚡ Dried Grape Pomace for the Remediation of Cork Taint in Wine

**Abigail Keng**, Texas A&M University, College Station

Continuous Solid Phase Extraction of Grape Solids in a Column with Wine and Juice

**Ruiye Yao**, University of California, Davis

Examining the Role of Fructose in Stuck or Sluggish Fermentation: A Correlation, not a Cause

**Glycine Z. Jiang**, Cornell University, New York

- ⚡ Fungicide Resistance of Botrytis cinerea Populations on Wine Grapes in the Central Coast of California

**Evelyn Alvarez-Mendoza**, California Polytechnic State University, San Luis Obispo

- ⚡ The Grape Health Index: Validation of a New Methodology for Quantifying Grape Spoilage by Means of FT-MIR Spectroscopy

**Craig Ebersole**, California State University, Fresno

- ⚡ Emerging Technology Alternatives to Sulfur Dioxide for Postharvest Decay Control in California Table Grapes

**Komal K Sekhon**, California State University, Fresno

- ⚡ Impact of Grapevine Red Blotch Virus on Cell Wall Composition and Phenolic Extractability during Winemaking

**Runze Song**, University of California, Davis

Implementation of a New Oxygenate Treatment in Viticulture Against Fungal Diseases

**Pascal Wegmann-Herr**, Institute for Viticulture and Enology (DLR-Rheinpfalz), Germany

Reduction of Ochratoxin A by Proteolytic Activity of Oenococcus oeni

**Gisselle R. Apud**, Universidad Nacional de Tucumán (UNT), Argentina

Malolactic Fermentation: Malolactic Potential and Metabolism of Nitrogenous Compounds by Different Strains of O. oeni

**Pedro Adrián Aredes Fernández**, Universidad Nacional de Tucumán (UNT), Argentina

Tiramine Production by Lactic Acid Bacteria from Tucuman Wines Detection by New Colorimetric Method

**Silvana Cecilia Ledesma**, Universidad Nacional de Tucumán (UNT), Argentina

Comparing Machine-learning Methods in Classifying Red Blotch and Leafroll Viruses in VIS Hyperspectral Images of Leaves

**Erica Sawyer**, California State University, Fresno

Identification of Phenolic Compounds in the Fraction of Young and Aged Wines from Argentina

**María Gilda Stivala**, Universidad Nacional de Tucumán (UNT), Argentina

Application of Parallel Factor Analysis (PARAFAC) to the Regional Classification of Vineyard Blocks Using Remote Sensing

**Eva Lopez-Fornieles**, University of Montpellier, France

- ⚡ Monitoring Grapevine Water Status at the Regional Scale of the San Joaquin Valley using Remotely Sensed Actual ET

**Kaylah Vasquez**, California State University, Fresno

Effects of Six Commercial Oenococcus oeni Cultures on Volatile Smoke-taint Compounds during Malolactic Fermentation

**Duncan Hamm**, Chr. Hansen A/S, Denmark

Effectiveness of Applied Materials in Reducing the Absorption of Smoke Components in a Simulated Wildfire Scenario

**Ignacio Arias-Pérez**, University of California, Davis

- ⚡ Preventing Smoke Phenol Absorption in Pinot noir Grapes: Evaluation of Film Coatings as Mitigation Technique

**Lindsay Garcia**, Oregon State University, Corvallis

- ⚡ Sequential Inoculation with Pichia kluyveri and Agitation as an Enological Technique to Enhance Wine Quality

**Andrew Nalle**, California State University, Fresno

Volatile Phenols Release from Ash over Time and its Potential Impact on Wine

**Juliano Toniato**, University of California, Davis

Preventing Migration of Smoke Compounds into Pinot noir (Vitis vinifera) Wine Grapes using Edible Coatings

**Lindsay Garcia**, Oregon State University, Corvallis

Impact of Smoke Exposure on Berry and Wine Chemistry of Cabernet Sauvignon under Leafing and Deficit Irrigation

**Song Yan**, University of California, Davis

- ⚡ Chaptalization Improves Tannin Extractability in Hybrid Wine Grapes

**David Campbell**, The Pennsylvania State University, University Park

Oenotannins Addition in Wine: Can be the Modulation of Redox Potential Predictable

**Valentina Canuti**, University of Florence, Italy

- ⚡ Synergetic Effect of Accentuated Cut Edges (ACE) and Pectinase on Marquette Wine Quality

**Yiliang Cheng**, Iowa State University, Ames

- ⚡ Comparison Between Traditional Fining and Plant-Based Fining Agents

**Paolo De Censi**, California State University, Fresno

- ⚡ Chemical Effects of Intrinsic Variations of Berry Size in Fruit and Wines of Three Pinot noir Clones

**Chase Kesecker**, California Polytechnic State University, San Luis Obispo

# RESEARCH REPORTS – POSTER SESSIONS (CONTINUED)

Investigation of Accelerated Red Wine Aging Using Micro-oxygenation in Combination with Barrel Aging

**Cristina Medina-Plaza**, University of California, Davis

 Investigation of the Viticultural Performance of Four Petite Sirah Clones, and Their Respective Wine Characteristics

**Andrew Misialek**, University of California, Davis

Polysaccharides Influence the Formation and Quantitative Analysis of Polymeric Pigments in Red Wine

**Stephan Sommer**, California State University, Fresno

How The Use of Whole Clusters Impact Red Wine Quality

**Aude Watrelot**, Iowa State University, Ames

Isolation, Characterization of Polysaccharides from Grape and Yeast and Their Interaction with Wine Volatile Compounds

**Danye Zhu**, Oregon State University, Corvallis

 Comparison of Hyperspectral Data and Photosynthetic Pigments of Cold-hardy Grapes Growing on Different Training Systems

**Annasamy Chandrakala**, University of New Hampshire, Durham

Widening the Curtain: Can Productivity of Pinot noir be Enhanced by Opening the Top of a Traditional VSP Trellis

**R Paul Schreiner**, United States Department of Agriculture, Oregon

Solute Accumulation in Grapevine: Winegrape Cultivars Vary Widely in Osmotic Adjustment and Solute Chemistry

**Gabriela Sinclair**, University of California, Davis

Different Soil Types Modulate Pinot noir Vine Growth and Fruit Composition in Oregon's Willamette Valley

**Patricia A. Skinkis**, Oregon State University, Corvallis

Impact of Cluster Thinning Timing and Severity on Wine Grape Yield and Quality: A Meta-analysis of 50 Years of Research

**Josh VanderWeide**, The University of British Columbia, Canada

# STUDENT FLASH TALKS

Flash Talks. These presentations will provide additional opportunities for interaction between conference attendees and student researchers.

**TUESDAY, JUNE 21**

4:20 pm – 5:10 pm

## Enology

### MODERATOR:

**James Osborne**, Oregon State University, Corvallis  
(Listed in presentation order)

### FLASH TALK PRESENTERS:

Chaptalization Improves Tannin Extractability  
in Hybrid Wine Grapes

**David Campbell**, Penn State University, State College

Chemical Effects of Intrinsic Variations of Berry Size in Fruit  
and Wines of Three Pinot noir Clones

**Chase Kesecker**, California Polytechnic State University,  
San Luis Obispo

Comparison Between Traditional Fining and  
Plant-Based Fining Agents

**Paolo De Censi**, California State University, Fresno

Synergetic Effect of Accentuated Cut Edges (ACE)  
and Pectinase on Marquette Wine Quality

**Yiliang Cheng**, Iowa State University, Ames

Investigation of the Viticultural Performance of Four Petite Sirah  
Clones, and their Respective Wine Characteristics

**Andrew Misialek**, University of California, Davis

Examining the Role of Fructose in Stuck or Sluggish Fermentation:  
A Correlation, not a Cause

**Glycine Z. Jiang**, Cornell University, Ithaca

The Control of Redox Potential during Wine Fermentations  
at Research, Pilot and Commercial Scales

**James Nelson**, University of California, Davis

Fermentation Model Parameters in Commercial-scale Wine  
Fermentations Using Alternative Searching Methodologies

**James Nelson**, University of California, Davis

Sequential Inoculation with *Pichia kluyveri* and Agitation  
as an Enological Technique to Enhance Wine Quality

**Andrew Nalle**, California State University, Fresno

Preventing Smoke Phenol Absorption in Pinot noir Grapes:  
Evaluation of Film Coatings as Mitigation Technique

**Lindsay Garcia**, Oregon State University, Corvallis

Dried Grape Pomace for the Remediation of Cork Taint in Wine

**Abigail Keng**, Texas A&M University, College Station

Effect of Fermentation Temperature Gradient and Skin Contact  
on Ester and Thiol Production in Chardonnay Wines

**Chase Lucas**, Oregon State University, Corvallis

## Viticulture

### MODERATOR:

**Lise Asimont**, Foley Family Wines, California  
(Listed in presentation order)

### FLASH TALK PRESENTERS:

Impact of Grapevine Red Blotch Virus on Cell Wall Composition  
and Phenolic Extractability during Winemaking

**Runze Song**, University of California, Davis

The Grape Health Index: Validation of a New Methodology for  
Quantifying Grape Spoilage by Means of FT-MIR Spectroscopy

**Craig Ebersole**, California State University, Fresno

Fungicide Resistance of *Botrytis cinerea* Populations  
on Wine Grapes in the Central Coast of California

**Evelyn Alvarez-Mendoza**, California Polytechnic State University,  
San Luis Obispo

Emerging Technology Alternatives to Sulfur Dioxide for  
Postharvest Decay Control in California Table Grapes

**Komal K Sekhon**, California State University, Fresno

Photoselective Shade Films Affect Grapevine Berry  
Secondary Metabolism and Wine Composition

**Lauren Marigliano**, University of California, Davis

First Year Effects of Vineyard Floor Management on Dry-Farmed  
Pinot Noir Vine Performance in Different Soil Types

**Mathew Lange**, Oregon State University, Corvallis

Comparison of Calcium-based Amendments and their Effects  
on Vines and Soils. A Three-year Study in a Sodic Soil in San  
Joaquin Valley

**Khushwinder Singh**, California State University, Fresno

Late-season Source Limitation Practices to Delay Ripening  
and Improve Color of Cabernet-Sauvignon Grapes and Wine

**Guadalupe Partida**, California State University, Fresno

Comparison of Hyperspectral Data and Photosynthetic Pigments  
of Cold-hardy Grapes Growing on Different Training Systems

**Annamay Chandrakala**, University of New Hampshire, Durham

Monitoring Grapevine Water Status at the Regional Scale  
of the San Joaquin Valley using Remotely Sensed Actual ET

**Kaylah Vasquez**, California State University, Fresno

Application of Parallel Factor Analysis (PARAFAC) to the Regional  
Classification of Vineyard Blocks Using Remote Sensing

**Eva Lopez-Fornieles**, University of Montpellier, France

Tailoring Irrigation for White Wine Grapes  
in Arid Eastern Washington

**Geraldine Diverres**, Washington State University, Prosser

Trans-resveratrol Derived from Cabernet Sauvignon Pruning  
Waste an Additional Revenue Source for Grape Growers

**David Garcia**, California State University, Fresno

# REGISTRATION

## 2022 Pre-registration Rates\*

Valid through June 14

### Climate Change Symposium

(Monday, June 20)

ASEV Member/Industrial Affiliate* .....	\$275
Non-Member .....	\$375
Student Member.....	\$50

### General Registration

(Tuesday, June 21 & Wednesday, June 22)

Includes: Research reports (oral and poster), Supplier Displays, award and keynote presentations, Poster Session, Flash Talks, Regional Wine Reception, and Student-Industry Mixer.

ASEV Member/Industrial Affiliate* .....	\$250
Non-Member .....	\$475
Student Member.....	\$65

**Early Career Member Rate:** Current Professional ASEV Members that were previous ASEV 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.

### Early Career Member Lunch

Current ASEV student and professional members that are within the first seven years of their professional career in the grape, wine or associated industries are eligible to join the lunch.

Student/Professional Member.....	\$20
----------------------------------	------

**After June 14, registration fees will increase by \$75.**

## 2 Ways to Pre-Register

### 1 Online

[www.asev.org/2022-registration-housing](http://www.asev.org/2022-registration-housing)

### 2 Telephone

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

The call center is open from 6:00 am to 6:00 pm (PDT), Monday through Friday. For registration changes, you may contact the call center by email ([asev.cmrushelp.com](mailto: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](http://www.asev.org). Membership includes access to our online journals.

## Pre-register by June 14 and save!

Save OVER \$300 by becoming a member today.  
Visit [www.asev.org](http://www.asev.org) for membership information.

## Supplier Display Tables

### 2022 SUPPLIER DISPLAYS:

A&P Inphatec	Knights Grapevine Nursery	Revolution Equipment Co.
BarrelWise Technologies	Lallemend	The Vintner Vault
Fermentis	Pacific Distributing, Inc./	WECO The Science
IntelliCulture	Orchard Rite	of Optical Sorting

# THANK YOU SPONSORS



**E&J Gallo Winery**

Climate Change Symposium  
International Speaker  
Dr. Hans Schultz  
Best Enology Paper Award  
Best Student Viticulture Presentation  
Awards (oral and poster)



**TREASURY  
WINE ESTATES**

Climate Change Symposium  
International Speaker  
Dr. Paul Petrie

**J. LOHR**  
VINEYARDS & WINES

Climate Change Symposium  
Platinum Best Viticulture  
Paper Award



Regional Wine Reception  
Student Industry Mixer



**LALLEMAND OENOLOGY**

Best Student Enology  
Presentation Awards  
(oral, poster and flash talk)

**Wonderful**  
nurseries™

Double Magnum

**FETZER VINEYARDS.**  
ESTD. IN 1968



Climate Change  
Symposium  
AM Coffee Break



**TRINCHERO**  
*Family Estates*

Climate Change  
Symposium  
PM Coffee Break Sponsor



Best Student Viticulture  
Presentation Award  
(flash talk)



**Constellation  
Brands**

Magnum