JUNE 19–22, 2022
Paradise Point Resort
San Diego, California USA

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

Register Today at asev.org
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 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 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

<table>
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<th>Time</th>
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<tr>
<td>3:00 pm - 6:00 pm</td>
<td>Registration</td>
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<td>3:00 pm - 6:00 pm</td>
<td>Speaker Ready Room</td>
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<td>4:00 pm - 6:00 pm</td>
<td>ASEV Board Meeting</td>
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## Monday, June 20

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<td>7:00 am - 5:15 pm</td>
<td>Speaker Ready Room</td>
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<td>8:00 am - 5:15 pm</td>
<td>Climate Change Symposium: Part 1 - Viticulture</td>
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<td>7:00 pm - 8:00 pm</td>
<td>ASEV Board Reception (by invitation only)</td>
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<td>8:00 pm - 10:30 pm</td>
<td>ASEV Board Dinner (by invitation only)</td>
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## Tuesday, June 21

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<td>Speaker Ready Room</td>
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<td>7:30 am - 11:30 am</td>
<td>Poster Sessions</td>
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<td>7:50 am - 8:05 am</td>
<td>President’s Welcome</td>
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<td>8:05 am - 8:15 am</td>
<td>Temecula Valley Winegrowers Association Presentation</td>
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<td>8:15 am - 9:55 am</td>
<td>Enology - General Enology Session (oral research reports)</td>
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<td>8:15 am - 9:55 am</td>
<td>Viticulture - Pest Management Session (oral research reports)</td>
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<td>10:00 am - 4:00 pm</td>
<td>Supplier Displays</td>
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<td>10:15 am - 11:00 am</td>
<td>ASEV Extension Distinction Award Presentation</td>
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<td>11:20 am - 12:05 pm</td>
<td>Honorary Research Lecturer</td>
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<td>12:05 pm - 1:30 pm</td>
<td>Early Career Member Lunch (separate registration fee required)</td>
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<td>1:30 pm - 7:00 pm</td>
<td>Poster Sessions</td>
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<td>1:30 pm - 3:30 pm</td>
<td>Enology - Smoke Taint Session (oral research reports)</td>
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## Wednesday, June 22

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<td>Poster Session (research reports)</td>
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<td>8:00 am - 9:00 am</td>
<td>Enology - Aroma Compounds Session (oral research reports)</td>
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<td>8:00 am - 9:00 am</td>
<td>Viticulture - Cover Crops Session (oral research reports)</td>
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<td>Viticulture - Rootstock Session (oral research reports)</td>
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<td>11:30 am - Noon</td>
<td>AJEV Best Enology Paper Author Presentation</td>
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<td>Noon - 1:00 pm</td>
<td>ASEV Annual Business Meeting</td>
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<td>1:10 pm - 2:30 pm</td>
<td>Enology - Tannin Management Session (oral research reports)</td>
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<td>1:10 pm - 2:30 pm</td>
<td>Viticulture - Red Blotch: Virus and Vector Evaluation Session (oral research reports)</td>
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<td>2:45 pm - 3:15 pm</td>
<td>AJEV Best Viticulture Paper Author Presentation</td>
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<td>3:30 pm - 4:50 pm</td>
<td>Viticulture - Red Blotch: From Macro to Micro Effect Session (oral research reports)</td>
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<td>5:00 pm - 7:00 pm</td>
<td>Student - Industry Mixer Reception</td>
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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:**

**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
- H2S 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 Olivier, Washington State University, Prosser
- Developing a Method for Transgene-Free Gene-Edited Grapevine  
  Laurence 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 Tomasinio, 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  
  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
Vineyard Nutrition: Reevaluation of Sampling Protocols
Nataliya Shcherbatyk, 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

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

Enology – Wine Macromolecules Session
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 α-Terpineol to Gewürztraminer Wine Aroma
Mildred Melina Chigo-Hernandez, Oregon State University, Corvallis

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

Enology – Microbiology: Non-Saccharomyces Session
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 SO2 Combining Anti-spoilage and Antioxidant Properties
Amandine Deroite, Lallemand, France

Viticulture – Rootstock Session
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

Viticulture – Cover Crops Session
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
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

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

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 Lo Monaco, 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: 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

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

1:10 pm – 2:30 pm

PROGRAM:
Overcoming the Challenges to Insect-vectored 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

73rd ASEV National Conference | Research Reports – Oral Sessions | 7
**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 Grapes**
  **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 SO2 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
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 as 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
Maria 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, University of California, Davis

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
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
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

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  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
  
  Annasamy Chandrakala, University of New Hampshire, Durham

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

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2 Ways to Pre-Register

1 Online
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2 Telephone
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