Vineyard Mechanization & Sensing Workshop

Saturday, April 25, 2015

Presented by

Fresno State
Viticulture and Enology
Vineyard Mechanization & Sensing Workshop

April 25, 2015

Program Schedule

8:00 am – 8:25 am  Event Registration: Leon S. & Pete Peters Educational Center, Student Recreation Center, Fresno State. Free parking in any yellow or green parking lot on campus.

8:25 am  Welcome by Dr. Jim Kennedy, Chair, Fresno State Department of Viticulture & Enology  
Moderator: Dr. Sonet Van Zyl, Fresno State Viticulture & Enology

8:30 am – 9:10 am  Dr. Matthew Fidelibus, UCCE, Viticulture & Enology  
Mechanization of the California Raisin Industry

9:10 am – 9:50 am  Dr. Kaan Kurtural, Fresno State Viticulture & Enology  
Managing Crop Load Using Mechanization and Applied Water Amounts

9:50 am – 10:00 am  Break

10:00 am – 10:40 am  Dr. Anita Oberholster, UCCE Viticulture & Enology  
Impact of Mechanical Harvesting and Optical Berry Sorting on Grapes and Wine Quality

10:40 am – 11:20 am  Mr. Bob Westbrook, TerrAvion  
Affordability and Managing Vineyards Using Remote Sensing of Vineyards, Delineation of Vigor and Irrigation Zones to Manage Vineyards

11:20 am – 12:00 pm  Dr. Serhat Asci, Fresno State Center for Ag Business  
The Production Economics of Managing Color in Hot Climates Using Mechanization and Irrigation

12:00 pm – 12:20 pm  Transition to the Department of Viticulture and Enology, 2360 E. Barstow Avenue, on the north side of Barstow Avenue between Cedar & Maple. Free parking in any yellow or green parking lot on campus. Refer to map.

12:30 pm – 1:15 pm  Lunch included at the Department of Viticulture & Enology

1:15 pm – 1:30 pm  Equipment Demonstrations and Displays. Walk to vineyard in three groups.
# French Colombard Block

Three Vineyard Equipment Stations & Presentations

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Three groups will rotate every 25 minutes.

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<th>TIME</th>
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<td>Station 3</td>
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2:45 pm – 3:00 pm  Return to the Department of Viticulture and Enology

3:00 pm  Workshop Concludes.
Dr. Serhat Asci, Research Fellow, Fresno State Center for Ag Business

Title: The Production Economics of Managing Color in Hot Climates Using Mechanization and Irrigation

Economic analysis of Merlot production in the San Joaquin Valley will be presented. Four different scenarios are evaluated in the presentation.

Serhat Asci has been working as a research fellow in the Center for Agricultural Business (CAB) at California State University, Fresno since September 2014 and he is going to be faculty at Fresno State’s Agribusiness Department starting from next August. He earned his doctoral degree from Food and Resource Economics Department at the University of Florida. His research focuses on three key areas: agricultural decision-making under uncertainty, demand modeling and natural resources. He has applied his analytical and quantitative skills to the projects about water demand; water quality policy for agricultural areas; stochastic production function modeling; investment under uncertainty; international trade; differential demand and production systems; and agricultural land allocation. Asci holds a bachelor’s degree in Food Engineering (2000) and a master’s degree in Food Economics and Management (2008).

Dr. Matthew Fidelibus, Cooperative Extension Specialist, UC Davis

Title: Mechanization of the California Raisin Industry

This presentation will review short, medium, and long-term efforts to mechanize raisin-making in the San Joaquin Valley.

Matthew Fidelibus (Ph.D. Horticultural Sciences, University of Florida) has served as a Cooperative Extension Specialist in the Department of Viticulture and Enology, University of California, Davis, since 2002. Located at the Kearney Agricultural Center in Parlier, California, he conducts applied research to develop and refine cultural practices that optimize the yield and quality of raisin, table, and wine grapes, and extends the research findings to industry. You can follow him on Twitter: @grapetweets
Dr. Kaan Kurtural, Fresno State Associate Professor, Bronco Wine Co. Viticulture Chair, Department of Viticulture and Enology

Title: Managing Crop Load Using Mechanization and Applied Water Amounts

Overview of applied research pertaining to San Joaquin Valley winegrape vineyards using mechanical implements

Kaan Kurtural joined the faculty at Department of Viticulture and Enology in August 2008. Previously, he was appointed as the Senior Viticulture Extension Specialist at the Department of Horticulture at the University of Lexington Kentucky. His research interests are Precision Viticulture, Whole Grapevine Physiology, Mechanization of Canopy Management Practices, and Vineyard Efficiency. His recent publications can be found in his CV on the Department of Viticulture and Enology website: [http://fresnostate.edu/jcast/ve](http://fresnostate.edu/jcast/ve)

Dr. Anita Oberholster, Cooperative Extension Specialist in Enology, UC Davis

Title: Impact of Mechanical Harvesting and Optical Berry Sorting on Grapes and Wine Quality

The impact of mechanical harvesting, optical berry sorting, and the possible synergistic effect of both on Pinot noir grape and wine composition were investigated. In general differences in wine composition that arose with harvest type (hand, MH – mechanical harvester, MH + on-board sorter) were diminished with the use of optical sorting.

Anita Oberholster specializes in wine chemistry and completed her Ph.D. in wine chemistry at the University of Adelaide, South Australia. She was affiliated as a wine researcher with Stellenbosch University in South Africa for 10 years before joining the UC Davis faculty in 2011. Her research interests include: Climate change, sustainability, fruit and wine processing and wine quality, phenol chemistry, and mouth-feel.
Bob Westbrook, Vice President of Operation, TerrAvion, Inc. (Dublin, CA)

Title: Affordability and Managing Vineyards Using Remote Sensing of Vineyards, Delineation of Vigor and Irrigation Zones to Manage Vineyards

Bob Westbrook is a 1982 graduate from the UC Davis College of Agriculture in Agricultural Economics. He is the former President and CEO of Bio Research, a contract research organization who provide field efficacy studies to the agrochemical industry and Bio Research Services, its consulting arm. Bob is currently the Vice President of Operations at TerrAvion, Inc., a high re-visit aerial imagery company providing affordable, weekly, multi-spectral imagery to growers in Northern and Southern California, Washington, Oregon and Santiago, Chile.

FRESNO STATE VINEYARD EQUIPMENT PRESENTERS

Thomas Clemens, Clemens Vineyard Equipment, Inc. (Woodland, CA)

Office: 530 406-0577  
www.clemens-america.com

Clemens Reps: A. J. Beams, Carmen Clemens

Chris Peterson, V-Mech Product Manager, Midwest Grower Supply Mfg. (Fresno, CA)

Office: 660 235-0081  
www.mwgsupply.com
RESOURCES FOR GRAPE GROWERS & WINEMAKERS

IN THE V. E. PETRUCCI LIBRARY

Department of Viticulture & Enology

Britt Foster, MLIS

The V.E. Petrucci Library, supported by an endowment funded by the Department of Viticulture and Enology Alumni Association in 1996, has existed in some form throughout the history of the program at California State University, Fresno. Named for Vincent E. Petrucci, founder of the Viticulture and Enology programs at Fresno State and a legend in the field, the library supports and continues this legacy of excellence in academics, research, and extension in the heart of California's Central Valley. The mission of the library is to serve the grape, wine, and raisin industries, the public, and the Department of Viticulture and Enology through access to research and information promoting the understanding and development of these disciplines. Library resources reflect the diversity of our patron community, with materials generated by the Department of Viticulture and Enology, by public and private research institutions and associations, and by other resources released regionally, nationally, and globally.

The library collection and services are open and free to all. For research on mechanization in viticulture, precision agriculture, and other resources, please contact librarian Britt Foster at brfoster@csufresno.edu or by phone at (559) 278-5388; please visit the library during open hours 8a-5p, Monday- Friday.
No courtesy parking code is required on April 25, 2015. Parking on campus is free on Saturdays.

8:00 am – 12:00 noon  **Morning Program Location:** Student Recreation Center Building

Leon S. & Peters Educational Center – Shaw & Woodrow Avenues

Near the Save Mart Center

Recommended parking lots: Lots P3, P2

12:00 pm – 3:00 pm  **Lunch & Afternoon Program Location:** Department of Viticulture & Enology

2360 E. Barstow Avenue – On North Barstow, between Cedar & Maple Avenues

Recommended parking lots: Lots P20, P18