

Stephen J. Vasquez,  
Viticulture Farm Advisor

## UC Davis Viticulture and Enology Library Collection

Axel Borg

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Shields Library, University of California, Davis is home to one of the finest collections of grape growing and wine making literature in the world. The collection is housed in the Maynard A. Amerine Viticulture & Enology Room on the third floor of Peter J. Shields Library, UC Davis. The collection gathers together materials on grape growing, grape diseases, wine making, fermentation science as well as the economic aspects of the wine industry. The primary emphasis is on the tech-

nical and scientific, historical and cultural aspects of grape growing and wine making with strong holdings in the economic and business aspects of grapes and wine. The collection is part of the Biological and Agricultural Sciences Department of Shields Library.

### General Description

In physical terms, collection contains approximately 27,000 volumes representing both monographic and serial holdings.

(Continued on page 2)

### Additional Web News

University of California  
Agriculture and Natural Resources

San Joaquin Valley Viticulture Blog

Making a Difference  
for California

## Sustainable Winery Building to be Hub of Environmental Technology

Ground was ceremonially broken at the University of California, Davis, for the 8,000-square-foot Jess S. Jackson Sustainable Winery Building, which will enable the adjacent winery, brewery and food-processing complex to become the first self-sustainable, zero-carbon teaching and research facility in the world.

The \$4 million, one-story building, slated for completion in

2013, was made possible by a \$3 million pledge from the late Jess Jackson and his wife, Barbara Banke, proprietor of Jackson Family Wines.

“UC Davis is a leader in sustainability in many different areas — energy, transportation, housing and work environments, and water reduction — and certainly interest in sustainable wine and food production is developing

(Continued on page 3)

# Library

(Continued from page 1)

Shields Library currently maintains some 140 serial subscriptions and contains over 325 serial titles, both active and inactive in the viticulture and enology subject area. The form of material in the collection ranges from books and serials, to pamphlets, to maps, to printed ephemera, to archives and personal papers. Twenty nine different languages are represented within the collection. Roughly one third of the collection is housed in the Department of Special Collections with the remainder in the Maynard A. Amerine Viticulture & Enology Room. Maps are housed with the library map collection in the Government Information Department.

The significance of the Viticulture and Enology Collection is that the collection is one of the finest of its kind. Shields Library is a member of the Research Libraries Group (RLG) and as such, has evaluated the quality of its collections and the effort that is being expended to develop the various segments of the collection. The quality of the Viticulture and Enology Collection and the effort that is going into building the collection is at the highest ranking, a level 5. Shields Library is the only library in the United States that has such a collection rated at an RLG Level 5. Shields Library collects material in viticulture and enology in all languages and at all levels of expertise, as the budget allows. The commitment on the part of the library to maintain and

build a collection of this magnitude is a measure of the importance of the Department of Viticulture and Enology at UC Davis.

## About Maynard A. Amerine

On September 14th, 1991 the room in Shields Library housing the grape growing and wine making collection was named in honor of Dr. Maynard Andrew Amerine, Professor Emeritus of Viticulture and Enology at the University of California, Davis.

Dr. Amerine was an acknowledged authority on both the cultural and technical aspects of grape growing and wine making. Over the last half century, he made the most singularly significant contributions of any one individual to the California wine industry. His accomplishments have been a major factor in California wines gaining their present status in the world community. Born in San Jose, California, on October 30, 1911, Dr. Amerine was raised in the San Joaquin Valley near Modesto. He completed his bachelor of science degree at the University of California, Berkeley in 1932. Prior to completion of his Ph.D. in 1935, Dr. Amerine was hired by Dr. Albert J. Winkler to work in the newly formed Department of Viticulture and Enology at UC Davis, created to give assistance to the California wine industry, which was just recovering from the restrictions of prohibition. He was appointed full professor in 1952 and was chair of the department from 1957 to 1962.

Dr. Amerine was initially engaged to explore the question of which grape varieties were best suited to the wide range of climatic conditions in California. The results of this work were published in the journal *Hilgardia* in 1944. Over time, the determination of grape growing regions and the adoption of recommended varieties resulted in a significant improvement in the quality of grapes grown for wine production and a corresponding improvement in the quality of California wine. Another major work, *Wines: Their Sensory Evaluation*, co-authored in 1976 with mathematician Edward B. Roessler, initiated the objective study of taste analysis. Dr. Amerine, a prolific scholar, had an extensive publication record which continued until just before his death, over 25 years after his retirement.

Dr. Amerine is recognized as an outstanding teacher and he has left a legacy to the state of California and the world through the hundreds of students he has trained who have become wine makers and grape growers.

One of Dr. Amerine's most important contributions to the Library has been his enduring interest in the viticulture and enology collection and his dedication to its excellence. In 1972, he donated to Peter J. Shields Library his personal collection of over 3,000 books and pamphlets, many of which are rare and significant works on grape growing and wine making.

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## Sustainable Winery

(Continued from page 1)

rapidly,” said UC Davis Chancellor Linda P.B. Katehi.

“This building will be used to explore new research areas, including ways to maximize water conservation in wine production and sequester carbon dioxide during fermentation,” she said. “With the technology that this building will house, we plan to produce wine with a net-zero carbon footprint and to develop models that are workable for the wine industry.”

“This new research facility fulfills a vision of sustainability that will allow UC Davis and the wine and food industries to reach a new level in conservation of water, energy and natural resources,” said Neal Van Alfen, dean of the College of Agricultural and Environmental Sciences. “We are very grateful to Barbara Banke and Jess Jackson for sharing this vision of sustainability and partnering with us on this new building.”

“My family and I are committed to the advancement of sustainable winemaking, and sustainable agriculture,” says Barbara Banke, Jackson Family Wines chairman, co-founder and proprietor.

“We are so proud that the Jess S. Jackson Sustainable Winery Building, named for my late husband and founder of Jackson Family Wines, will support research and innovation in sustainable viticulture and winemaking,” she said. “Our next generation of winemakers and environmental

scientists will be better prepared to further the sustainability of our already green industry.”

The building will be located on the south side of UC Davis’ one-year-old Teaching and Research Winery and August A. Busch III Brewing and Food Science Laboratory at the Robert Mondavi Institute for Wine and Food Science.

It will include 10 dedicated, modular spaces that will contain equipment for various processes including high-purity filtration of rainwater that can be used for cleaning fermentors and barrels in the winery. Ninety percent of the water and chemicals from each winery cleaning cycle will be captured and processed for future use in the complex, eventually being used as many as 10 times.



In addition, the building will sequester carbon dioxide captured from all fermentations in the winery and convert it into calcium carbonate, or chalk, which will be given to a plasterboard company. The building also will produce chilled water using an icemaker powered by electricity from solar panels and will be equipped to generate hydrogen gas by electrolysis and produce

nighttime energy using a hydrogen fuel cell.

One room in the new building will house the control system and data hub for the many processing systems, and two rooms will be held for future research projects and equipment trials related to any aspect of water and energy use or sustainable systems.

“The building is designed so that each of these systems can be removed and replaced with a newer model, making it an evolving test-bed and demonstration site,” said Professor Roger Boulton, a winery engineering expert and the Stephen Sinclair Scott Endowed Chair in Enology at UC Davis. He noted that the building’s control and data system will be designed to monitor and display the water, energy, carbon and chemistry footprints in real time, and manage the operation of all utilities and the building environment.

In December 2010, UC Davis’ Teaching and Research Winery became the first winery in the world to receive LEED platinum certification, the highest rating for environmental design and construction awarded by the U.S. Green Building Council. (LEED stands for Leadership in Energy and Environmental Design.) Located in the same building, the August A. Busch III Brewing and Food Science Laboratory also became the first such facility to achieve LEED platinum certification.

## UC Davis-Wageningen Partnership Focus on Global Food Security and Environment

Two of the world's leading agricultural and environmental universities --- University of California, Davis, and Wageningen University and Research Centre, the Netherlands --- signed a cooperative agreement at UC Davis on Oct. 27 that will coordinate scientific research and implement business connections on major issues related to global food security, human nutrition, water and renewable energy.

With a global population that now tallies 7 billion, scientists and thought leaders worldwide are resolutely determining how to sustainably feed the additional 2 billion people who are expected to arrive in the next 40 years, while maintaining environmental quality and human nutrition and well-being.

"We are facing challenging times," said Aalt Dijkhuizen, president and chairman of Wageningen UR. "We have to increase food production while decreasing the environmental footprint. That is a major global challenge."

"This partnership will allow two of the best institutions in the world to address the challenges of environmental quality and food production," added Neal Van Alfen, dean of the UC Davis College of Agricultural and Environmental Sciences. "Together we will form worldwide networks with other universities, government institutions and especially with businesses that can implement new research technologies. We will develop solutions that really have an impact."

In addition to Van Alfen, UC Davis and California were represented at the signing by UC Davis Chancellor Linda Katehi and Karen Ross, secretary of the California Department of Food and Agriculture. Dijkhuizen was joined by Secretary-General Chris Buijink of the Netherlands Ministry of Economic Affairs, Agriculture and Innovation, and Netherlands Consul General Bart van Bolhuis to represent Wageningen UR and the Netherlands.

"This partnership will bring lead scientists, businesses and government partners together to provide science-based answers, innovations and sound policy that benefit the public," Katehi said. She stressed the need for scientists to help develop public policy.

Dijkhuizen noted that this "golden triangle" of private industry, government and university research institutions is an effective way to implement scientific technologies and innovations.

The CDFA secretary and Netherlands secretary-general highlighted the need for government in this partnership. Ross stressed the agricultural production and nutrition components of the agreement, and how they will benefit the health and well-being of general consumers, while assuring a strong agricultural future in California. Buijink said that job growth, which benefits everyone, will be a critical outcome of extending the research information and technologies to business partners in food-production, agricultural and environmental industries.

Water is a major issue related to food production and environmental quality, not only in the U.S. and the Netherlands but throughout the world and especially in developing areas. The consul general said that water issues will be at the forefront of research between the institutions.

"Research that addresses water-saving technologies in agriculture will help create new irrigation and water-storage innovations that benefit farmers, consumers and everyone who has a stake in water issues," said van Bolhuis.

This agreement between UC Davis and Wageningen UR will address the pressing global issues of population growth, food security and environmental sustainability through research on efficient production and postharvest technologies, reduced energy and environmental inputs, and scientific breakthroughs in areas such as genomics, biotechnology and new biofuels.

The agreement will also establish scholarly exchange programs for students and postdoctoral scholars between the two universities in order to expand knowledge of global issues and technologies related to food, agriculture and the environment. The courses and workshops will provide leadership opportunities for students and postdocs who will go on to become scientists, decision makers and leaders in businesses, government, universities and other organizations.

# Formation of Crystals on Stored Raisins

Matthew Fidelibus

The formation of crystalline substances on or within raisins is an undesirable post-harvest phenomenon commonly referred to as "sugaring". The crystals are formed from natural grape sugars and acids that are a normal and essential component of all fresh and dried grapes, including non-sugared raisins. Sugaring is undesirable because the crystals impart an unattractive appearance and disagreeable texture to the raisins; however, sugared raisins have the same nutritional value and are just as safe to eat as non-sugared raisins.

Because sugaring is undesirable, raisin packers are interested in understanding the factors that contribute to sugaring so that it may be prevented. The exact cause of crystal formation remains unknown, but a series

of studies by L. Peter Christensen, former UC Davis viticulture specialist emeritus, suggest that processing and post-harvest storage conditions have a pronounced influence on the likelihood of sugaring. Christensen showed that one of the most important factors affecting sugaring is raisin moisture content during storage. Raisins stored at 10% to 12% moisture showed little sign of sugaring after one year, but sugaring increased dramatically as moisture content increased beyond 12% such that after one year of storage raisins having 14%, 16%, or 18% moisture, developed crystals on 11%, 28%, or 36% of their surface, respectively. The handling and cleaning of raisins that occurs during processing also seems to increase sugaring problems, but the relative contributions of surface

abrasions that may result from destemming, and the increased moisture content that results from washing, is uncertain. The storage of processed raisins under conditions of fluctuating temperature and humidity also favors sugaring. Thus, to reduce the likelihood of sugaring, unprocessed raisins should be dried 14% moisture or less, not processed until necessary, and the gentlest cleaning and processing methods possible should be used.

*Matthew Fidelibus is a Viticulture Specialist with the Department of Viticulture and Enology, UC Davis and is based at the UC Kearney Ag Center.*



Normal raisins on the left, and "sugared" raisins on the right.

## San Joaquin Valley Grape Symposium

January 4, 2012

C.P.D.E.S. Hall  
172 W. Jefferson Avenue  
Easton, CA

7:30 a.m. — 1:30 p.m.

To register on-line and pay by credit card go to:

[On-line Registration Link](#)

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# Grapevine Canker Disease

Philippe Rolshausen, Stephen Vasquez and Carmen Gispert

Canker diseases are known to be responsible for a significant decrease in vineyard longevity and productivity and an overall reduction of profits. However, their economic impact in California's table grape vineyards has not yet been fully measured. Canker diseases (e.g., measles, bot canker, eutypa dieback) are caused by a complex of fungal pathogens that infect grapevines soon after a vineyard is planted. However, it usually takes several years for the first symptoms to appear. As a vineyard ages and the disease becomes more severe, growers encounter a decrease in yield due to the collapse of fruit bearing spur positions, the dieback of cordons, and eventually the decline of the entire grapevine.

The loss in revenues is significantly measurable when vineyards turn 10 years old and canker dis-

eases worsen each year reducing yields. Siebert (2001) evaluated this loss at 16% of the annual gross producer revenue in wine grape production (Fig.1), a figure that is comparable in table grape production. Conversely, table grape growers must also account for a loss in fruit marketability. Grapevines infected with 'measles' (a.k.a. Esca) often have blemished berries (Fig.2). Vasquez et al. (2007) reported that severity of 'measles' on fruit at harvest ranged from 35-55% in 25-30 year-old Thompson seedless vineyards.

The fungi that cause 'measles' reside in wood vessels within the grapevine spurs, cordons or trunks and produce phytotoxins that are translocated to the fruits causing the appearance of necrotic spots on the skin. Another obvious symptom specific to 'measles' is the development of tiger-striped

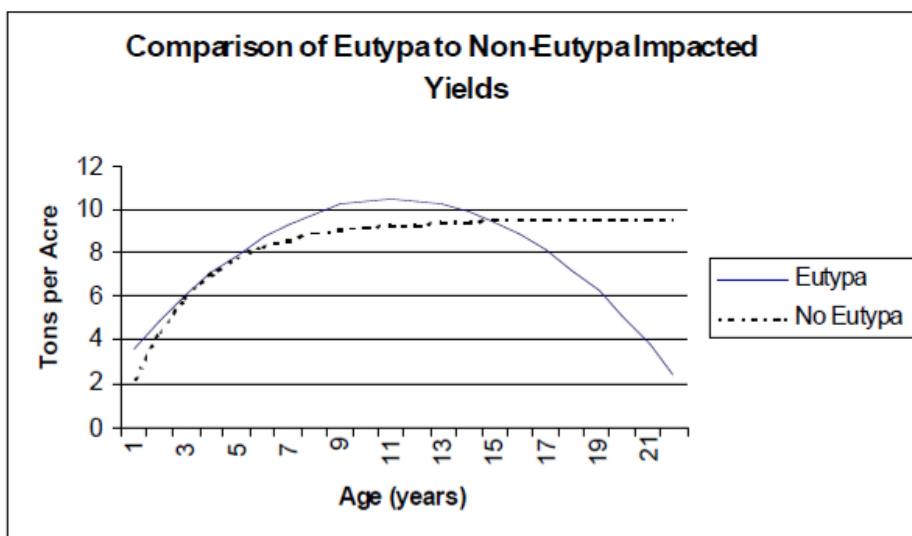


**Figure 2: 'Measles' symptoms on Thompson Seedless fruit. Necrotic spots on the berries result from fungal phytotoxins.**

leaves (Fig.3) also resulting from fungal phytotoxins. The expression of the disease and its direct consequence on revenue losses fluctuates from year to year and is unfortunately not predictable. For example, in 2011, phone calls from San Joaquin Valley table grape growers regarding symptoms of measles impacting their crop were up 50% when compared to 2010. Current research points to the increase of measles symptoms resulting from high winter and spring rains, which was characteristic of 2011.

Over the past two years, we conducted a survey to evaluate the presence of canker producing pathogens in California's table grape production areas. Our survey conducted in 2010-2011 in the Coachella Valley and Fresno County showed that 2 to 35 years old vineyards showed signs of canker diseases (e.g. dieback, decline, foliar and fruit symptoms) and that 96% of these vineyards were infected with fungi associated with measles while 65% were infected

*(Continued on page 7)*



**Figure 1: Estimated yield impacts over a 22-year life of a Californian wine grape vineyard, based on observed yield loss due to Eutypa dieback and Bot canker (Siebert 2001)**

# Canker Disease

(Continued from Page 6)

with bot canker fungi (Table 1). Additionally, at least 12 different fungal species were identified residing in symptomatic wood. Two fungi causing ‘measles’ were commonly found at both locations in the Coachella Valley and Fresno County (i.e., *T. minima* and *P. chlamydospora*) but each location also had pathogens unique to each growing area (Table 2). Different environmental conditions and viticulture practices in the Coachella Valley and the southern San Joaquin Valley likely influence diseases etiology. For example, some fungi are more adapted to surviving in the hot, dry environment of the Coachella Valley. Also, Coachella Valley grape growers improve chilling units by using overhead sprinkler irrigation systems during the months of November and December to induce dormancy. The use of overhead sprinklers provides ideal conditions for these fungi to spread and reproduce, Contrast the manmade envi-

**Table 1: Incidence of canker diseases in California table grape. Results are based on 17 vineyards (Fresno= 10; Coachella= 7). Vineyard age range: 2 to 35 years old.**

Disease	% Incidence in Vineyard
Esca / Measles	94
Bot Canker	65
Others	47

**Table 2: Percent of grapevines infected with fungi causing canker diseases in Fresno and Coachella. Results based on 87 wood samples (Fresno= 50; Coachella= 37).**

Disease	Pathogen	% Infection	
		Fresno	Coachella
Esca / Measles	<i>Togninia minima</i>	24	16
	<i>Phaeoconiella chlamydospora</i>	16	11
	<i>Phaeoacremonium parasiticum</i>	--	38
	<i>Phaeoacremonium fuscum</i>	--	5
	<i>Phialophora</i> sp.	--	5
	<i>Phaeoacremonium rubrigenum</i>	2	--
Bot Canker	<i>Lasodiopodia theobromae</i>	--	11
	<i>Lasodiopodia crassispora</i>	--	14
	<i>Diplodia seriata</i>	28	--
Others	<i>Phomopsis viticola</i>	10	--
	<i>Eutypella</i> sp.	--	11
	<i>Eutypa lata</i>	2	--

ronmental conditions with those found in the southern San Joaquin Valley where the pathogens spread with rainfall.

Table grapes are most vulnerable to infection during the pruning period. Fungal spores become airborne with water (rainfall, drip or sprinkler irrigation), land on pruning wounds, colonize the wood, and start degrading the wood, causing cankers. Because pruning is necessary to achieve economically viable yields and quality coupled with the fact that methods do not exist to eradicate these fungi, grapevine cankers are a persistent problem. During our preliminary survey we diagnosed an alarming number of young vineyards (under 5 years) already showing signs of canker diseases,

which means the vineyards will not be profitable due to an early decline. Based on our observations the following viticulture practices could be responsible for early vineyard decline;

- 1) Grafting healthy plant material on to old infected trunks;
- 2) Grafting infected non-certified plant material onto healthy wood;
- 3) Replanting a new vineyard but leaving the vine stumps of the former vineyard in the ground, providing a source of disease inoculum.

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## Canker Disease

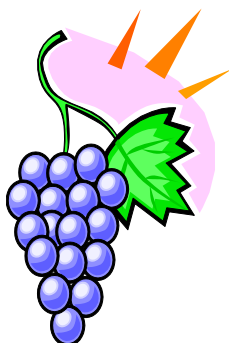
(Continued from Page 7)

A high level of production is needed for California's table grape growers to maintain its dominant position in the marketplace but canker diseases threaten this goal. It is critical for the industry to develop and implement a management program that supports sustainable crop productivity in order to ensure of the long-term profitability of vineyards. California researchers are working towards that goal by identifying canker causing pathogens, learning their biology and looking for manage-



**Figure 3: 'Measles' symptoms on leaves. The picture shows that the expression of symptoms on leaves caused by fungal phytotoxins produced by the pathogen (*Togninia minima*) residing in the cordon wood canker.**

ment methods that will inhibit fungal infections.



Future research will focus on the following points working closely with the table grape industry:

- 1) Measure the economic impact of canker diseases in table grape production.
- 2) Survey additional vineyards to map the disease distribution in California's table production areas.
- 3) Evaluate the long-term spray application of thiophanate-methyl on the reduction of disease incidence in young vineyards.
- 4) Evaluate the practice of grafting plant material and disease expression.

*Philippe Rolshausen is a viticulture plant pathologist located at UC Riverside. Stephen Vasquez is the UC Cooperative Extension viticulture farm advisor for Fresno County. Carmen Gispert is the UC Cooperative Extension viticulture farm advisor for Riverside County.*

## Library

(Continued from page 2)

In 1951, Dr. Amerine co-authored A Check List of Books and Pamphlets on Grapes and Wine and Related Subjects with Louise B. Wheeler, a librarian at Shields Library. His most recent book was also co-authored with a librarian at Shields Library, Axel E. Borg, A bibliography on grapes, wines, other alcoholic beverages, and temperance: works published in the United States before 1901 (1996). With his vast knowledge of the literature, he has also generously continued to assist librarians responsible for the subject areas of grapes and wine.

Dr. Amerine was a distinguished scientist and scholar, a remarkable teacher, a prolific author and an accomplished bibliographer. He died on March 11, 1998.

*Axel Borg is a librarian subject specialist for viticulture and enology, food and nutrition, plant sciences, and other agriculture disciplines at Shields Library, University of California, Davis.*





# CALENDAR OF EVENTS

## Local Meetings and Events

### San Joaquin Valley Grape Symposium

January 4, 2012  
 7:30 a.m. — 1:00 p.m.  
 C.P.D.E.S Hall  
 172 W. Jefferson Avenue  
 Easton, CA  
 (559) 600-7285

To register on-line and pay by credit card go to:  
<http://ucanr.org/sivgrapesymposium>

### U.C. Davis University Extension Meetings (800) 752-0881

#### Managing the Small Vineyard I

January 28, 2012  
 9:00 a.m. — 4:00 p.m.  
 Room 180, Medical Science Building  
 E. Health Science Drive  
 Davis, CA  
 Section: 113VIT205

#### Introduction to Wine Analysis

March 10, 2012  
 9:00 a.m. — 6:00 p.m.  
 1127 North, Robert Mondavi Institute  
 for Wine and Food, Old Davis Rd.  
 Davis, CA  
 Section: 113VIT208

#### Introduction to Wine Microbiology

March 28, 2012  
 9:00 a.m. — 4:00 p.m.  
 Da Vinci Building  
 1632 Da Vinci Ct.  
 Davis, CA  
 Section: 113VIT210

#### Introduction to Winery Sanitation

March 29, 2012  
 9:00 a.m. — 4:00 p.m.  
 1127 North, Robert Mondavi Institute  
 for Wine and Food, Old Davis Rd.  
 Davis, CA  
 Section: 113VIT211

# Publications from the University of California

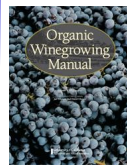


### Vineyard Pest Identification and Monitoring Cards

ANR Publication 3532  
 Price - \$25.00 + tax and shipping

Keep your vineyard healthy by staying on top of pest activity with this pack of 50 sturdy, pocket-size laminated cards. This is the perfect quick reference to identifying and monitoring vineyard diseases and pests. Twenty-seven common insects and mites, 8 diseases, 6 beneficial insects, and a variety of other disorders, weeds, and invertebrate pests are covered in 244 photos.

These 50 information-rich cards will help growers, vineyard managers, and their teams identify and manage most common problems.



### NEW! Organic Winegrowing Manual

ANR Publication 3511  
 Price — \$35.00 + tax and shipping

Interest in California organic wine grape production inspired this publication that provides a full-color guide with information on soil management, including soil considerations when selecting a vineyard site, developing organic soil and fertility programs and selecting cover crops. An extensive section covering weed, disease, insect, mite, and vertebrate pest management options for organic grape production is covered. The chapter on organic certification contains an overview of considerations for evaluating and selecting a certifier.

## Order Form

Publication	Qty.	Price	Subtotal
Vineyard Pest Identification		\$ 25.00	
Organic Winegrowing Manual		\$ 35.00	

Shipping – USA Only		
Merchandise Total	Shipping Charge	
\$1—29.99	\$6	Merchandise Total:
\$30—39.99	\$8	Tax = 7.975%:
\$40—49.99	\$9	Shipping Based on Merchandise Total:
\$50—79.99	\$10	Total Enclosed: \$
\$80—99.99	\$12	
\$100+	\$15	

### Checks Payable to UC Regents

Name \_\_\_\_\_  
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 State, Zip Code \_\_\_\_\_  
 Phone ( ) \_\_\_\_\_

Send to:  
**UC Regents - Cooperative Extension**  
 1720 S. Maple Avenue  
 Fresno, CA 93702

**UNIVERSITY OF CALIFORNIA  
COOPERATIVE EXTENSION**  
County of Fresno  
1720 South Maple Avenue  
Fresno, CA 93702

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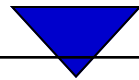


# Vine Lines

Produced by UC Cooperative Extension Farm Advisor Stephen J. Vasquez. Contact me for further article information, or to be added to the mailing list.

**1720 South Maple Ave.  
Fresno, CA 93702  
Hours: 8:00—5:00 M-F  
(559) 600 -7285**

**Visit us online at  
<http://cefresno.ucdavis.edu>**



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For special assistance regarding our programs, please contact us.

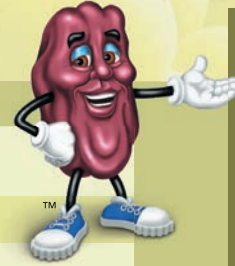
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University policy is intended to be consistent with the provisions of applicable State and Federal laws. Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action/Staff Personnel Services Director, University of California, Agriculture and Natural Resources, 300 Lakeside Drive, 6<sup>th</sup> Floor, Oakland, CA 94612-3550, (510) 987-0096.



# San Joaquin Valley Grape Symposium

WEDNESDAY, JANUARY 4, 2012



## Meeting Agenda

- |         |   |
|---------|---|
| 7:00am  | Registration and Refreshments   |
| 7:45    | Morning Welcome   |
| 8:00    | Presentation: Stephen Vasquez<br>Glassy-Winged Sharpshooter and Pierce's Disease Update     |
| 8:30    | Presentation: Lt. Robert Kandarian<br>Minimizing Agricultural Theft                         |
| 9:00    | Presentation: Matthew Fidelibus<br>Fruitfulness of DOV Raisin Cultivars                     |
| 9:30    | Break and Refreshments  |
| 10:00   | Presentation: James Painter Phd, RD<br>Health and Nutrition Research Update                 |
| 10:40   | Presentation: Dan Barber<br>Marketing Activities Update                                     |
| 11:20   | Presentation: Bill Peacock<br>Advancing Maturity of Raisin Cultivars Using Potassium Sprays |
| 12:00pm | Lunch with Guest Speaker – TBA  |
| 1:30    | Prize Drawing (Must be present to win)  |



**Location: C.P.D.E.S. Hall**  
172 W. Jefferson Avenue  
Easton, California

**From North of Fresno:**

Take Highway 99 South to Highway 41 south. Take Highway 41 south to American Avenue. Turn west on American Avenue towards Elm Avenue. Turn south on Elm Avenue towards Jefferson Avenue. CPDES Hall will be on your right.

**From South of Fresno:**

Take Highway 99 south to Manning Avenue. Turn west on Manning Avenue to Elm Avenue. Turn north on Elm Avenue towards Jefferson Avenue. Turn west on Jefferson Avenue. CPDES Hall will be on your right.

*Continuing education PCA and CCA hours have been requested.*

## Registration Form **San Joaquin Valley Grape Symposium**

*Pre-register online at <http://ucanr.org/sjvgrapesymposium> to be entered in the Prize drawing.*

Company:

Phone:

Address:

City:  Zip:

Attendee Names:

Mail Payment and registration to:  
San Joaquin Valley Grape Symposium  
1720 S. Maple Avenue, Fresno, CA 93702  
559-600-7285

**Make Checks Payable to: UC Regents**  
Late registration for, day of meeting:  
\$20 per person at the door.



**Fees:**

**Registration and Payment Must be Received by December 31, 2011**

Meeting/Proceedings and Lunch: \_\_\_\_\_ x \$10 each = \$\_\_\_\_\_

Check Number \_\_\_\_\_ Amount Enclosed \$\_\_\_\_\_

**UCCE** University of California  
Cooperative Extension  
Fresno County



Please Join Us  
Wednesday,  
January 4, 2012



SAN JOAQUIN VALLEY

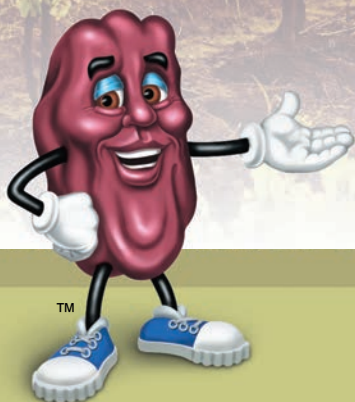
# Grape Symposium



  
Contact:  
(800) 948-7228 or (559) 674-8757



**JOHN DEERE**



Full-day conference attendees can enter drawing to win a John Deere™ Gator TS provided in cooperation with Midland Tractor of Madera, CA. Retail list price: \$6999.\*

*\* Must pre-register for symposium and be present at time of drawing.*

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## A Guide to Agritourism:

**A class for Fresno region farmers and ranchers** offered by UC Cooperative Extension Fresno County and the UC Small Farm Program in partnership with the Fresno County Farm Bureau and the Fresno-Clovis Convention & Visitors Bureau



**Are you considering agritourism or nature tourism on your farm or ranch?  
Would you like to build your agritourism or nature tourism business?**

### This class is for you!

- Local pioneering agritourism operators will share their own experiences and will be part of a supportive network of advisors as class participants plan and start new enterprises.
- Participants will learn from experts in business planning, regulatory compliance, risk management, hospitality and cost-effective marketing, including social media.
- The hands-on, interactive activities will guide participants as they assess their own farms or ranches for agritourism potential and start their own business, risk management and marketing plans.
- Each participant will receive a free copy of the extensive handbook, “Agritourism and Nature Tourism in California”, which will be used as a text for the class.

### Registration is open – Sign up today

Fresno, Madera, Merced, Tulare and Kings County farmers and ranchers are encouraged to sign up for the three-session course. Registration is now open at <http://ucanr.org/agtour.fresno.11>

**Dates:** Thursday, December 8, Wednesdays, January 25 and March 14

**Times:** 8:00 a.m. – 12:30 p.m. each session

**Location:** Fresno County Farm Bureau, 1274 West Hedges Avenue, Fresno, CA 93728

**Cost:** \$25 for 3-session course (\$30 after December 1)

**Information:** Penny Leff, UC Small Farm Program, [paleff@ucdavis.edu](mailto:paleff@ucdavis.edu), 530-752-7779

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