

Stephen J. Vasquez,
Viticulture Farm Advisor

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Managing European Grapevine Moth, *Lobesia botrana*, in the Core Quarantine of Fresno Co.

Walt Bentley and Stephen Vasquez

We are currently into the fourth generation (fourth cycle of eggs and larvae) for European grapevine moth (EGVM) in Fresno County. However, as of October 4, 2010, no new moths have been trapped. Projections identifying this generation were made based on the degree day model developed in Italy and currently being validated in Napa County by Lucia Varela (UC IPM) and Monica Cooper (UCCE). Based on this model,

applied when the first moths of the second generation were caught on June 10, third generation moths should have been present during the last 10 days of July. No moths were found validating the third generation or the start of the fourth generation in Fresno County. This is not surprising given the intensive management strategies organized by Fresno's Ag Commissioner, University of California researchers

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6th International Table Grape Symposium Proceeding Now Online

The 6th International Table Grape Symposium held at UC Davis was a great success. Forty oral presentations and 25 posters were presented to an international audience of approximately 300 participants. University of California Cooperative Extension researchers Matthew Fidelibus, Jennifer Hashim and Stephen Vasquez hosted meeting participants from a dozen nations and US growers from California, Colorado and Idaho. Highlights of the meeting were symposia that fo-

cused on the use and benefit of plant growth regulators for improved fruit quality and an overview of California's public and private table grape and rootstock breeding programs. Articles from both symposia as well as the entire programs oral and poster abstracts can now be found online at [6th International Table Grape Symposium](#) proceedings e-version.

The next meeting is scheduled for Australia in 2013.

Parties interested in attending the next meeting should contact:

David Oag
Senior Horticulturist, Horticulture and Forestry Science Agri-Science Queensland, Australia

Telephone: +61 7 4681 6100

Fax: +61 7 4681 1769

Email:

david.oag@deedi.qld.gov.au

Address PO Box 501, Stanthorpe Q 4380 (Applethorpe Research Station, New England Highway)

Best of Times

California winemakers are once again bullish on the future of their industry, predicting that business will revive within three years from a slump that began in 2007, reports Robert Smiley, dean and professor emeritus at the University of California, Davis, Graduate School of Management.

Meanwhile, consumers can take advantage of unprecedented opportunities to purchase high-quality wines at significantly discounted prices, he said. "There never was a better time to be a consumer of high-quality wines," Smiley said, noting that during the past two years the prices of higher-end California wines have been reduced on average by 15-25 percent.

Smiley presented these and other findings from two recent surveys of wine industry professionals and executives on Tuesday, September 21st, during the annual Wine Industry Financial Symposium at the Napa Valley Marriott Hotel.

Survey of Wine Executives

Smiley's ninth annual wine executives survey tapped the opinions of the heads of 26 key wine operations. Most of the survey respondents represented wine companies; others were from firms that ranged from grape growing to wine-distribution operations. The responding executives said they anticipate that pending legislation, particularly bills aimed at

curbing direct sales of wine to consumers, will be among the industry's major "hot issues" for the next five to 10 years.

"Legislation supported by wine distributors is pending in several states that would make it more difficult for consumers to purchase wine directly from the producers," Smiley said. He noted that the wine executives surveyed also were concerned that the coming years will bring tax increases; water shortages for wineries; domestic grape shortages; and lower prices on imported grapes, which will make it unprofitable for domestic growers to expand their plantings. "The wineries were encouraged by an uptick in sales during the past year, however their optimism was tempered by the fact that many of those sales increases were achieved by cutting prices," Smiley said.

He noted that many wine executives are looking forward to a groundswell in consumption from the Millennial Generation. This group of consumers — also referred to as Generation Y — is roughly composed of individuals born between the mid-1970s and the early 2000s. "The Millennial Generation is very important, because their predecessors in Generation X have not been particularly fond of wine," Smiley said. "Wine industry executives are hopeful that this new generation, which first

learned an appreciation of flavors and place-of-origin as recreational coffee drinkers, will transfer that appreciation to wines," he noted.

Survey of Wine Professionals

Smiley's survey of wine professionals, now in its 19th year, included responses from 109 wine producers, as well as wine grape growers, distributors, retailers and lenders from throughout California. It is the largest survey of its kind in the wine industry.

Fifty-six percent of the wine producers and more than 66 percent of the wine distributors responding to the survey predicted that the wine business will get "back to normal" within three years. The majority of survey participants reported that they believe consumers are continuing to look for bargains in wine purchases, are dining out less and purchasing lower priced wines, trends also noted in last year's survey.

They also reported that they had altered their business practices since the economic recession began in 2007 by creating more flexibility in their business plans, reducing operational costs, increasing wine-by-the-glass sales rather than relying primarily on bottle sales, and adjusting to lower profits. They also noted that the prices paid for supplies and wine grapes had dropped, direct sales to consumers had increased and staffing had been reduced.

(Continued on page 6)

UC Davis Launches World's 'Greenest' Winery, Brewery and Foods Facility

A newly completed winery, brewery and food-processing complex at the University of California, Davis, is set to begin operations as the most environmentally sophisticated complex of its kind in the world, one that promises to unravel scientific enigmas and solve practical problems related to foods, beverages and health.

The \$20 million, 34,000-square-foot teaching-and-research complex is expected to be the first winery, brewery or food-processing facility to earn LEED Platinum certification, the highest environmental rating awarded by the U.S. Green Building Council. (LEED stands for Leadership in Energy and Environmental Design.) It is intended to become self-sustainable in energy and water use after all of its features come on line. The new complex was funded entirely by private donations; no state or federal funds were used in its design or construction.

The new complex showcases UC Davis' commitment to environmental excellence and embodies the vision to serve as a catalyst for sustainable economic development and social progress in California and beyond. It raises the bar for environmental design and construction of laboratory and processing buildings within the University of California. It will serve as a model for industries throughout the nation that are also committed both to environmental excellence and production efficiency," he said.

The south wing of the new one-story complex is home to the August A. Busch III Brewing and Food Science Laboratory, which includes, a brewery, general food-processing plant and milk-processing laboratory. The complex's north wing houses a new teaching-and-research winery. Construction was completed in July, and wine grape crush and brewing have begun at the complex, with some equipment yet to be purchased or moved in.

The complex is adjacent to a new 12-acre teaching-and-research vineyard and is located within the campus's Robert Mondavi Institute for Wine and Food Science. The institute, which opened in 2008, comprises three academic buildings that house the Department of Food Science and Technology and the Department of Viticulture and Enology.

LEED Platinum environmental design

The new winery, brewery and food-processing complex was designed to serve as a test bed for production processes and techniques that conserve water, energy and other vital resources.

Its environmentally friendly features include onsite solar power generation and a large-capacity system for capturing rainwater and conserving processing water. The stored rainwater will be used for landscaping and toilets, per LEED specifications.

UC Davis is raising funds to complete an auxiliary building to

house equipment that will make it possible to capture, store and recycle rainwater, which will be used in an automated system to clean barrels, tanks and fermentors. The proposed system would reuse 90 percent of the captured rainwater volume.

We want to demonstrate a self-sufficiency model that is applicable to any business with limited water," said Roger Boulton, a winery-engineering expert and the Stephen Sinclair Scott Endowed Chair in Enology at UC Davis. He noted that plans call for eventually operating the facility independent of the main campus water line.

Additionally, the winery has been designed to capture carbon dioxide, a natural byproduct of fermentation, from a port in each of the new fermentors. An innovative process will be used to remove the carbon dioxide from the winery, reducing the building's energy requirements for air quality and temperature control. Plans call for eventually capturing and storing the carbon dioxide produced by the winery, so that it will not contribute to global warming.

"The goal is for the facility to be not just carbon neutral, but carbon zero, in terms of its carbon emissions," Boulton said.

Other environmentally responsible features include maximum use of natural light, rooftop photovoltaic cells to provide all of the facility's power at peak load, new food-processing equipment

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Managing EVGM

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and the industry once the small population of moths had been found. At present, the grape industry is in a good position to eradicate European grape vine moth in Fresno County. But, it is extremely important to “put our foot on the neck of this invasive pest”. That means timing UC approved EGVM pesticide applications to the core area EGVM infested vineyards (1000 meter radius of the multiple finds in the Del Rey Area) for the fourth generation.

This pest has placed an extreme burden on those who farm grapes in the core area. They are, for all intents and purposes, the ones who are bearing the burden of these multiple treatments. Despite funding received from the Natural Resource Conservation Service Integrated Pest Management Program to cover the chemical cost, the time and effort required to make special treatments has been covered by grape farmers in the core area. However, the consequences of allowing EGVM to become established in Fresno County will be a financial burden to the industry if the quarantine continues. As more growing areas fall under the quarantine, greater restrictions will be placed on movement of plant material (not just grapes) and compliance agreements will be necessary. Raisin and wine grape farmers growing crops where the margin for profit is less than for table grapes will be particularly impacted. The table grape industry

will also be impacted, with grapes destined for export having mandated fumigations. The need to eliminate this pest from Fresno County is critical. Don't delay treatments; there are multiple products available.

IMPORTANT NOTE: When considering EGVM treatments, growers should also think about mealybug infestations. Hand harvested fruit is often left behind by pickers when heavy mealybug infestations are present. Where vine or grape mealybug have resulted in severe crop damage, those clusters must be removed and destroyed and not remain in the vineyard to be infested by late developing EGVM. Growers should select products that have a long residual for EGVM if high mealybug populations are present.

The Website: <http://www.ipm.ucdavis.edu/EXOTIC/eurograpevinemoth.html> gives information on the biology and damage potential for European grapevine moth. A map is available to growers delineating the quarantine area of 96 square miles and the core 1000-meter radius from the central find.

Trap monitoring will continue through the efforts of the Fresno County Agriculture Commissioner's office and the California Department of Food and Agriculture. In the core EGVM infested area this means traps are at a density of 1 per 5 acres. This is intensive trapping and it is impor-

tant in determining the active EGVM population in Fresno County. Even with this trap density, not finding a moth or larva doesn't mean there are no EGVM life stages present and that means we need to continue the eradication effort. We do believe this pest will be eradicated. You should believe that as well.

Walt Bentley is a UC IPM advisor located at the UC Kearney Agricultural Center. Stephen Vasquez is a UC Cooperative Extension farm advisor in Fresno County.

SAVE THE DATE!

San Joaquin Valley Grape Symposium

January 5, 2011
7:30 a.m. — 1:00 p.m.
C.D.P.D.E.S Hall

172 W. Jefferson Avenue
Easton, CA

Registration Information
Available in December Issue
of Vine Lines

'Greenest' Winery

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requirements, use of recycled glass in the flooring, interior paneling recycled from a 1928 wooden aqueduct, and use of lumber harvested from sustainably certified forest operations.

High-tech processing systems

A technological capstone for the facility will be the world's first wireless wine-fermentation system, a \$1 million assembly of 152 wireless grape fermentors, designed, fabricated and donated by a team of research engineers led by T.J. Rodgers, founder, president and chief executive officer of San Jose, Calif.-based Cypress Semiconductor.

Each of the 200-liter, electro-polished, stainless steel fermentors is individually equipped for automated control of temperature and the "pump-over" process, controlling two of the most important factors in determining final wine characteristics and quality.

Additionally, newly designed fermentor sensors frequently and precisely extract and transmit sugar-concentration data from white and red fermentations across a wireless network. Data from the sensors can be generated every 15 minutes with a precision of 0.25 Brix, a measure of sugar content .

When completed, the winery is expected to contain one of the largest wireless networks in any fermentation facility in the world.

Meanwhile, the new brewery

will provide a showcase for the latest in brewing technology, as well as a sophisticated laboratory for conducting research and training students in the science of brewing. It also is intended to provide commercial brewers and suppliers with a small-scale facility in which they can test new recipes or processes.

Individual donors make vision a reality

Dozens of private donors contributed funds to make the new complex a reality, beginning with a \$5 million contribution in 2001 from the late winemaker, Robert Mondavi, followed in 2002 by a \$5 million pledge by the Anheuser-Busch Foundation.

Other major donations were made by Ronald and Diane Miller and by a group of winery partners led by Jess Jackson and his wife Barbara Banke of Kendall-Jackson Wines, and Jerry Lohr of J. Lohr Vineyards & Wines. That group of winery partners secured the funds necessary to design and construct the facility to LEED Platinum standards.

California tomato processors and growers also came together to contribute more than \$2.5 million to the food-processing pilot plant, recognizing the important role that the Department of Food Science and Technology has played in the industry and the future potential for training students and conducting research at the new complex. The Woodland,

Calif.-based Morning Star Packing Company provided a lead gift of \$1 million for the food-processing plant.

In all, more than 150 individuals, alumni, corporations and foundations contributed funds to make the new winery, brewery and food-processing complex a reality. These included major contributions from the Department of Viticulture and Enology's Board of Visitors and Fellows.

About the UC Davis Department of Viticulture and Enology

Established in 1880 by California legislative mandate, the UC Davis Department of Viticulture and Enology has been at the forefront of international grape and wine innovation for 130 years. The department partners with the California grape and wine industry through research, public service and equipping students with both scientific knowledge and practical skills.

More information about the department and the new winery is available online at:

<http://wineserver.ucdavis.edu>



Best of Times

(Continued from page 2)

Additionally, they noted a dramatic increase in their business use of social media, including Facebook, Twitter and company blogs. "Social media has been widely used, in part because it is quite inexpensive," Smiley said. "The challenge is to make use of it strategically, without wasting time."

The responding professionals predicted that among red wine varietals, demand for and sales of Cabernet Sauvignon and Pinot Noir will be particularly strong during the next three years. And among white wine varietals during the same period, Chardonnay, Sauvignon Blanc and Pinot Grigio will be moderately strong performers, they said.

Wine Executive Program

The Graduate School of Management will continue its work with California wine executives when it collaborates with the UC Davis Department of Viticulture and Enology in offering the [Wine Executive Program](#) March 21-25, 2011 at UC Davis. The four-day program is designed to teach the fundamentals of winemaking and management skills that are necessary to be profitable in the wine industry and related businesses.

Results of both surveys are available online at:

<http://www.gsm.ucdavis.edu/2010winestudy>

New Media: Making Marketing Personal

New media - Facebook, Twitter, wikis, podcasts, and YouTube – are changing the ways that we communicate. Many and others associated with production agriculture are beginning to use new media to tell their stories, providing useful information that connects food production to the general public's food consumption, and thereby helps market agricultural products. Additionally, extension specialists are using new media to increase distribution of knowledge even as their numbers and resources are decreasing. This is why the California Agricultural Leadership Foundation in conjunction with the College of Agricultural and Environmental Sciences and the Department of Animal Science at UC Davis is offering an upcoming workshop on New Media: Making Marketing Personal.

The workshop, slated for November 20, 2010, will include a "How to Begin" primer and provide examples of successful efforts. Afternoon breakout sessions will feature experts who can help participants learn how to tell their stories, develop sound bites, and expand their vision of ways that technology can be used to market agriculture and its products.

For more information, or to register, visit the meeting's website:

<http://agnewmedia.ucdavis.edu/>

Get Soil Data on the phone with SoilWeb App

UC Davis Ph.D. candidate Dylan Beaudette and his advisor Toby O'Geen, a UC Davis Cooperative Extension soil resources specialist, have developed SoilWeb, a GPS-enabled smartphone application to support on-demand access to soil survey information anywhere (with cell phone coverage) in the contiguous 48 states. SoilWeb was designed to take advantage of the GPS or cell tower triangulation capabilities of modern smartphones in order to perform location-based queries of soil survey data in the field. The spatial queries are sent to the UC Davis Soil Resource Laboratory's online interface to soil survey information. Query results are presented as a series of soil profile sketches, depicting soil horizons, series names, landscape position and taxonomic classification.

Clicking on a soil name provides the user with information such as depth profiles of soil chemical and physical properties, land classification indices, land-use interpretations and links to a variety of other environmental databases.

The application is available at no cost for iPhone and Android OS platforms. Details of the application appear in the latest issue of Soil Science Society of America Journal at:

<https://www.soils.org/files/publications/sssai/abstracts/74-5/s10-0144nabs.pdf>

CALENDAR OF EVENTS

Local Meetings and Events

San Joaquin Valley Grape Symposium

January 5, 2011
 7:30 a.m. — 1:00 p.m.
 C.P.D.E.S. Hall
 172 Jefferson Avenue
 Easton, CA 93706

U.C. Davis University Extension Meetings

(800) 752-0881

Taxation and Accounting for the Small Vineyard

November 4, 2010
 9:00 a.m. — 4:00 p.m.
 Da Vinci Building
 1632 Da Vinci Ct.
 Davis, CA
 Section: 102VIT205

Taxation and Accounting for the Small Winery

November 5, 2010
 9:00 a.m. — 4:00 p.m.
 Da Vinci Building
 1632 Da Vinci Ct.
 Davis, CA
 Section: 102VIT206

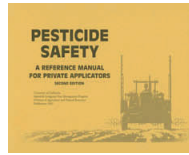
Current Issues in Vineyard Health

November 30, 2010
 9:00 a.m. — 4:00 p.m.
 Da Vinci Building
 1632 Da Vinci Ct.
 Davis, CA
 Section: 102VIT202

Public Relations for Small Wineries

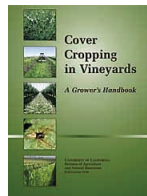
December 10, 2010
 9:00 a.m. — 4:00 p.m.
 Da Vinci Building
 1632 Da Vinci Ct.
 Davis, CA
 Section: 102VIT201

Publications from the University of California



Pesticide Safety: A Reference Manual for Private Applicators
 ANR Publication 3383
 Price - \$7.00 + tax and shipping

Updated in 2006, this manual covers information essential for anyone using pesticides on California farms, including growers, managers and employees. The manual covers pesticide labels, worker safety (handlers and fieldworkers), how to mix and apply pesticides, calibration, the hazards of pesticide use including heat related illness, and pesticide emergencies.



Cover Cropping In Vineyards
 ANR Publication 3338
 Price - \$20.00 + tax and shipping

This guide features cutting-edge methods for using cover crops to enhance vineyard performance. Based on extensive research, this guide details technical and theoretical information on how cover crops affect vineyards and promote ecological stability.

Order Form

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Cover Cropping in Vineyards		\$ 20.00	

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Vine Lines

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