



# UNIVERSITY OF CALIFORNIA DAVIS LAUNCHES *Integrated Viticulture Online*

BY CLIFF OHMART Research/IPM Director

The University of California Davis recently launched a wonderful new website called "Integrated Viticulture Online" which can be found at <http://iv.ucdavis.edu/>. It is designed to increase accessibility to the work of UC researchers, including faculty, Cooperative Extension Specialists, Farm Advisors and staff. Not only does it cover UC Davis people but also anyone else within the UC system that is currently working on grapes or has done so in the past. The website is designed and maintained by the UC Division of Agriculture and Natural Resources Integrated Grape Production Workgroup.

However, Dr. Deborah Golino, Director of the Foundation Plant Services, with the assistance of Beverly Ferguson, has done a large portion of the work to get the website up and running. Deborah is also chair of the committee that oversees the website.

The website has been designed to make negotiating through a large and diverse database of information as easy as possible. On the left side of the Home Page is a menu of choices. The first selection is 'UC Grape Researchers' which if you click on it takes you to an alphabetical list of people who work on grapes or have done so in the past. When you click on a name of interest it takes you to a webpage with the contact information for that person. Also, the website allows

The screenshot shows the homepage of the University of California Integrated Viticulture Online website. At the top, it says "University of California Integrated Viticulture Online" with a "HOME" button and the ANR logo. Below that is a search bar with the text "Enter Search Term Here" and a "search" button. On the left side, there is a "Main Menu" with links for "UC Grape Researchers", "Viticultural Information", "Resources", "UC Publications", "Committee Member List", "Links", and "Calendar". The main content area features a large photo of a vineyard and a section titled "About UC Integrated Viticulture Online" which describes the website's purpose and contact information. On the right side, there is a "Calendar" section listing several events with dates and titles, and a "Click Calendar heading for all events" button. At the bottom, there is a "Wine Grape Varieties in California" section with a photo of grapes and the text "This beautifully". The Berkeley and UC Davis logos are at the bottom left.

any of these people to add information of their choosing to the website. So when you click on someone's name you may find a biography of them or a list of recent publications as well as their contact information.

The second menu selection on the Home Page is 'Viticultural Information'. When you click on this selection you are taken to a webpage that has an alphabetical list of 28 viticultural topics arranged by general category, such as breeding, cultural practices, disease, rootstocks, vineyard economics, etc. When you click on a topic of interest you are taken to a webpage that lists specific areas of that topic.

For example, if you click on 'Rootstocks' you are presented with a list of rootstocks and clicking on any one of them takes you to a webpage with information on that rootstock.

The third menu selection on the Home Page is 'Resources'. Clicking on this takes you to a webpage that contains a list of six resources: University of California Resources, Scientific Organizations, State of California Resources, Journals and Newsletters, Resources of the United States, and Libraries and Special Collections. Clicking on any one of these will take you to lists of resources within each of these areas. For example, if you click on 'University of California Resources' you are presented with a list of links to websites for resources like

Trellis Alliance, UC Davis Extension, UC Integrated Pest Management Program, etc.

The fourth menu selection on the Home Page is 'UC Publications'. When you click on this selection you are presented with a webpage that lists the major sources of UC Publications which are the Agriculture and Natural Resources Catalog, California Agriculture and University of California Press. Clicking on these links takes you to publications they have produced on viticulture and wine topics. Also on the UC Publications webpage are synopses of featured books that have recently been published on various aspects of viticulture.

The next menu selection on the Home Page links you to a list of the talented people that are on the Committee

that oversees the website. There is also a selection labeled 'Links' that takes you to a web page with a list of links to other web pages that may or may not have been listed on some of the other locations on the Integrated Viticulture Online website. And finally, the last menu selection on the Home Page is a link to a calendar that lists up and coming events related to viticulture.

If you want to know more about this very helpful resource for viticulture you can attend an LWWC Breakfast Meeting 9am on April 19, 2007 at the Central Valley Waste Management Services seminar room at 1333 East Turner Rd. Dr. Deborah Golino will discuss and demonstrate the website. It should be a very interesting and worthwhile meeting.

## GROWER PROFILE

# Kyle Lerner

Kyle Lerner has an interesting combination of experiences that make him one of the many interesting growers who produce winegrapes in Lodi. He has been growing winegrapes for about 14 years yet when he was a kid he had no idea he would be farming, his children will be the sixth generation of farmers in Lodi if they choose to continue in the business and the fourth generation on the land they own, he has a passion for growing the highest quality winegrapes possible, and he and his family are about to release their first wine label. So how did all of this happen?

Kyle grew up in north Stockton where his dad was a police officer for over 30 years. His first experience of farming occurred when he was a young teenager visiting relatives in South Dakota who farmed wheat and ran cattle. He was allowed to drive a Caterpillar tractor and, as Kyle so aptly put it, "I made my first mark in the earth related to farming". However, it would be quite a few years before he took the next step to becoming a farmer.

Growing up in north Stockton put him in the Lodi School district where he graduated from Tokay High School. Not before meeting and dating Jorja Mettler, who is from a long line of Lodi farmers. Kyle went off to Fresno State University and got a degree in finance. He and Jorja continued to date and eventually married. Kyle's major in finance was OK by her because having grown up on a farm



ACRES OWNED/MANAGED:  
650 Acres

VARIETIES:  
Zinfandel, Chardonnay, Merlot,  
Cabernet Sauvignon, Tempranillo,  
Alberino, Petite Sirah, Pinot Grigio,  
Alicante Bouschet

and witnessing first hand the financial strain and long hours, she was not sure she wanted to marry a farmer.

Kyle graduated with the idea that he was heading toward a career in the banking industry. However, his graduation coincided with the infamous Savings and Loan banking scandals and banking took a temporary down turn providing him no real job opportunities. He therefore took a job as a regional sales manager for a company named Primestar, which made small satellite dishes for home TV. He was the first person to sell them in Northern California. Unfortunately, Kyle was on the road a lot and was starting to become dissatisfied and stressed out working in the corporate world. Coincidentally, Jorja's

father, George, needed some help in his vineyards and Kyle, admitted green horn, offered to help out. He discovered he really liked the work.

Kyle kept his day job in sales while helping in the vineyards on the side. At the time George was farming only 175 acres which was not enough to support both his family and Kyle's. Jorja is a Physical Therapist but as many of us know it often takes more than one income to sustain a family's finances. Kyle liked winegrape growing so much he began to think about how he could make the situation work for him. He decided to get a pest control operator's license (PCO) and began doing custom spraying for other growers around

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# IN THE VINEYARD

## TOPICS COVERED:

2007 Rain • Spring Disease Check • Irrigation Systems • Frost • Vine Nutrients • VMB/GWSS • Weeds • Web sites to check

After two high rainfall years in 2005 and 2006, this year seems to be shaping up to be slightly below normal. The soil moisture is still relatively good, because of some effective rain events. A few vineyards probably did benefit from a mid winter irrigation, but if you didn't get one on, it is not a problem. It may be a little easier to manage spring growth this year, but Mother Nature may provide some substantial rain yet.

Budbreak is probably close to being on schedule for an average start in the next week to ten days (March 15 plus or minus) as I write this. Good cold mid winter chilling, decent soil moisture and following a moderate crop, the "Spring Push" of early shoot growth should be uniform and fast. The abundant rainfall last season and the excellent growing conditions produced huge canopies, which are

observed in some of the pruning weights in the last few weeks. Drier conditions this year may help reduce the possibility of strong to excessive canopy development this year. Weeds and cover crops are beginning to put some growth out as temperatures are warming. There is a new weed publication that is excellent and comprehensive, but a little pricey; "Weeds of California and Other Western States" ANR publication 3488. It is a good investment, but you can get lots of information also at the web site [www.wric.ucdavis.edu](http://www.wric.ucdavis.edu). The expectation is for an average crop in 2007, and although it is a long way to harvest, things look to start out about average.

If rainfall stays below normal (if there is such) we may be starting irrigation a little earlier than the last two years. A good nutrient program and

adequate irrigation will help vines bounce right back for this year, as grapes seem to have that ability more so than fruit and nut trees. This past January had 25 straight days when the minimum was below 30° Fahrenheit and few locations hit minimums between 13° and 19° F. It probably is a real good idea to make sure no fittings or pipes are broken from the extreme cold, before the system is needed.

With vine nutrients in mind, it maybe good to invest in some potassium, but watch the nitrogen this year, especially if the crop looks average and growth is good. Petiole samples at bloom are not perfect, but can provide some guideline to potassium needs along with micronutrients. You can get a close enough for nitrogen needs by estimating a percentage of last years crop and compare that to the potential

crop load this year.

Remember to check irrigation wells for water nitrate levels if that hasn't ever been done to adjust for any nitrogen applied with irrigation water. Also don't "rush" the nitrogen application before bloom unless you are using a slow release fertilizers or compost and manures. With all that in mind you may still be left with poor canes to prune and the best you can do is select the healthiest looking cane or prune to a few one bud spurs where necessary. Vines that are in generally good health will do the rest.

Besides nutrient application, other vineyard items for the spring to be ready for include frost and protecting new shoots from disease. Frost is one topic always lurking in the mind of any grower. There are four things to remember: 1) Low areas are susceptible to cold air accumulation resulting in frost; 2) windless nights of low humidity and low dew point are major concerns; wet soil that is cultivated (but not the day before) or low cover crop can be slightly warmer than high cover or weeds; 3) delayed and/or double pruning can delay budbreak and avoid cold conditions for another 10 to 14 days; and if you are going to drip irrigate to "frost protect" you need to apply the water at least 24 to 36 hours ahead to allow some heat accumulation the day before to do any good. And 4), copper sprays or bactericides do not prevent freeze damage.

Curiously as this winter has been colder than recent years, the topic of Global Warming has heated up (sorry). A new cottage industry has sprung up to address this topic, but has seemed to ignore most of the science that actually exists. Locally I checked our Growing Degree Days (GDD) averaged over six weather stations in the District for the last 25 years. What I found was the "hottest five years in order of GDD

accumulation are: 1992, 1997, 2001, 1984, 2006. The warmest July total was in 1988 and the coolest September in 2005. For a range of views on climate change check the web sites : [www.realclimate.org](http://www.realclimate.org), [www.junkscience.com](http://www.junkscience.com), or [www.co2science.org](http://www.co2science.org).

Powdery mildew was a problem late in the year last season. A late dormant lime sulfur spray can be helpful in reducing powdery mildew and Phomopsis problems, but after budbreak is the important time to focus on control, irrespective of variety or site. Recent research indicates dormant applications of lime sulfur may help reduce long term problems of measles or Esca caused by vine decline pathogens such as Phaeoacromonium and Phaeomoniella in addition to powdery mildew. Vine training after planting and avoiding large pruning wounds are currently the most effective strategies in dealing with the less aggressive but still threatening Vine Decline "cousins" of Eutypa Dieback. From budbreak until late May is a good time to be on the lookout for Eutypa affected shoots or for dead spurs most probably from Bot canker (*Botryosphaeria* spp). Although foliar symptoms are different they both cause the pie shaped cankers in older wood. Mark those vines and begin to think about a re-training strategy and or pruning later in the dormant season. If you have specific questions check [www.ipm.ucdavis.edu](http://www.ipm.ucdavis.edu) for IPM Guidelines or give me a call.

For Phomopsis and powdery mildew wettable sulfur after bud break can be very effective, although there are many new materials and captan is still available. Check the UC IPM guidelines and talk with your PCA or give me a call. Wettable sulfur after budbreak can be a very effective and inexpensive choice for doubling up on

an early start to powdery mildew control, while the addition of copper is a little less definitive as a help, except with Botrytis. Whatever the material of choice ends up being, a good powdery mildew program includes: some sulfur (dust or wettable), rotation of materials between years, and complete coverage, are each important

Remember to be on the look out for the presence of Vine Mealy bug (VMB), which is continuing to spread throughout the state and in scattered locations around San Joaquin County. The over wintering crawlers tend to be small and not active until after budbreak, but if you find vines with heavy amounts of black sooty mold, check those vines very closely and mark them. Look in any cracks crevices and loose bark and even down into the soil on large roots. Also note if there is a high amount of ant activity fairly early. Talk with your PCA or check [www.ipm.ucdavis](http://www.ipm.ucdavis) or [www.vine-mealybug.uckac](http://www.vine-mealybug.uckac). And of course don't forget about the Glassy Winged Sharp Shooter (GWSS) and the Western Grape Leaf Skeletonizer (WGLS), they both are still lurking to the south and north of San Joaquin County.

For some general information two new web sites may be worth checking out if you have some free time. For a new one stop search to viticulture information try the Integrated Viticulture web site at [www.iv.ucdavis.edu](http://www.iv.ucdavis.edu) or for grape variety descriptions and a national nursery listing there is the National Grape Registry at [www.ngr.ucdavis.edu](http://www.ngr.ucdavis.edu) There seems to be more to think about than ever, but the challenge makes for an interesting way to make a living, if prices continue to improve.

*Good luck in 2007.*

1994 and 1995. The business grew rapidly and George and Kyle formed Mettler and Son, Inc. They now own and manage a combined 650 acres of vineyards.

Coming to winegrape growing from a non-farming background has some possible advantages but also disadvantages. The disadvantages are that everything one does is new and there is an amazing amount to learn. Kyle's first and foremost source of information was his father-in-law George. "He is the best mentor I could have", Kyle says without hesitation. He also took classes at University of California Davis, attended LWWC grower meetings, and sought out many other sources of information on winegrape growing.

One advantage of coming from outside winegrape growing, at least in some people's minds, is that one has no preconceptions of how things should be done. In other words, one escapes the notion of doing things as they've always been done. As Kyle got more involved in vineyard management as a part of his PCO business he was struck by how some growers farmed by the calendar. When he asked them why they answered by saying "Because that is the way it has always been done". Kyle's financial background, along with encouragement from his partner George, led him to question every part of their farming plans. For many vineyard practices he asked himself is this the best thing to do? Is it the most efficient? Is it the best use of money? He felt it is important to not only assess farming practices based on their environmental impacts but they also should be assessed using an economic yardstick. In other words the economic 'E' of the three 'E's' of sustainability.

Kyle, like many Lodi growers, uses everything at his disposal to help him become a more sustainable winegrower such as consulting grower mentors like George, University of California resources like Paul Verdegaal, attending LWWC meetings and participating in LWWC programs. His latest venture, with the help of family, is to vertically integrate Mettler and Son, Inc. by releasing wine under their own labels and open a winery and tasting room in 2008.

In his 'spare' time Kyle is active in the Lodi District Grape Growers Association and has recently been elected President. He has also begun the process of certifying some of his vineyards under the Lodi Rules for Sustainable Winegrowing program which he hopes will help differentiate his wines in the marketplace.

Kyle, his wife Jorja and kids Ian 5 and Kirsten 7, epitomize The Lodi Rules program's sustainability statement, "In Lodi, our wines are grown with extra care by generations of farming families. We are responsible to our land, our workers, the community we live in, and to all those who enjoy our great wines".

## LODI WINEGRAPE COMMISSION

# *Wins the Governor's Environmental and Economic Leadership AWARD*

On December 5th, at a ceremony in the CalEPA Building in Sacramento, the Lodi Winegrape Commission was presented with The Governor's Environmental and Economic Leadership Award, the State of California's highest and most prestigious environmental honor. The program recognizes individuals, organizations, and businesses operating in California that have demonstrated exceptional leadership.

In the awards ceremony, Governor Arnold Schwarzenegger's message stated, "Tonight's award recipients have demonstrated a tremendous commitment to preserving our natural resources, while also contributing greatly to our economy. The individuals, organizations and businesses being honored have my utmost gratitude for pursuing innovative and effective strategies that protect both our environment and the well-being of our business communities."

"This award is a real honor," said Dr. Cliff Ohmart, Research/IPM Director of the Lodi-Woodbridge Winegrape Commission. "Being California's top environmental award, it recognizes years of hard work by all Lodi winegrowers to become the leaders in sustainable winegrowing. Lodi's winegrowers believe that they have an obligation to their families and community, both past and future, to do the right thing and preserve the land to ensure generations to come have the same healthy environment that is available today."

The Governor's Environmental and Economic Leadership Awards program is administered by the California Environmental Protection Agency and Resources Agency, in partnership with California's Business, Transportation and Housing Agency, State and Consumer Services Agency, and the California Department of Food and Agriculture. In 2006, the LWWC was one of only three organizations honored for their work in the field of sustainable practices or facilities.

# CALENDAR OF EVENTS

**April 19, 2007** 9 am – 10:30 am. Introduction to UC Integrated Viticulture Online by Dr. Deborah Golino, Director of University of California Foundation Plant Services, Davis California. Dr. Golino will describe and demonstrate this new website which presents all of the research results that have been done at the University of California on viticulture. Central Valley Waste Management Services seminar room, 1333 East Turner Rd., Lodi.

**May 8, 2007** 9 am – 10:30 am. Crop estimation and vine response by John (JJ) Gonsalves, Grower Services, Constellation Wines, Lodi. John will use over eight years of weather data and vine response to look at how various vine parameters are related to yield and discuss ways some could be used for crop estimations.

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