

**RMI****UC DAVIS** Robert Mondavi Institute for Wine and Food Science
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E-news #031: Summer 2012

In This Issue

- [Executive Director's Update](#)
- [Del Monte Joins RMI Industry Partnership Program](#)
- [Innovating with T.J. Rodgers and the Cypress Semiconductor Team](#)
- ["Friends of the RMI" Program Welcomes New Members](#)
- [RMI Historical Agricultural Book Series](#)
- [Uncorked at the Mondavi Center](#)
- [Margrit Mondavi Reflects on Her Life in New Book](#)
- [Flynn Brings Olive Oil Education to Washington D.C. Festival](#)
- [UC Davis Olive Center is Top Grade](#)
- [Institute Welcomes New Staff](#)
- [Students Support the Robert Mondavi Institute](#)
- [Dannon Probiotics Fellowship, an Initiative to Promote Education in the Field of Probiotics](#)
- [UC Davis is Recognized as America's 'Coolest School'](#)
- [Beer Foam Examined in New Book by UC Davis Brewing Expert](#)
- [In Brief](#)
- [Upcoming Events](#)
- [Contributors to "RMI Wine and Food Bytes"](#)

Executive Director's Update

By Clare Hasler-Lewis



Fall is fast approaching. Students will be back this month and there is excitement about the beginning of a new school year. This is going to be another significant year of growth and achievement for the Robert Mondavi Institute.

Our Industry Partnership Program is growing with [Del Monte Foods](#) becoming the most recent member. Del Monte will be supporting a graduate fellow in the company name.

The RMI will also strengthen its support of graduate students with two additional events on Friday, September 28. The first is the third annual Graduate Student Research Poster Competition. First-, second-, and third-place winners will receive, respectively, \$1,000, \$500, and \$250, along with an engraved plaque. Winners will be announced in the fall issue of the Enews.

Following the poster competition we will be partnering with Nugget Market to host the Best of the Barrel from 5 to 8 p.m. This extremely popular fundraising event, last held four years ago, will be at UC Davis for the first time. And the Good Life Garden is the perfect venue for this fall wine, beer and food celebration. Proceeds from Best of the Barrel will be used to support the Food Science Graduate Student Association.

The Olive Center continues to garner national and international recognition. In June, executive director Dan Flynn took the Olive Center to our nation's capital by participating in the [46th annual Smithsonian Folklife Festival](#) as part of the 150th anniversary of the establishment of the land-grant university system. The Olive Center continues to set the standard for olive oil quality. Check out the [Davis Enterprise story](#) below to read more about this issue from Dan Flynn and Dr. Selina Wang, the center's director of research.

The continued success of the Robert Mondavi Institute would not be possible without excellent staff support. I'm pleased that our staff continues to grow with the recent hire of Tracy Dickinson as event coordinator, and Debbie Norden as my new administrative assistant.

Enjoy the waning days of summer!



Clare

Del Monte Joins RMI Industry Partnership Program

By Andrea Thompson

Del Monte Foods is the second company to join the RMI's Industry Partnership Program (IPP). Headquartered in San Francisco, they are one of the country's largest and most well-known producers, distributors, and marketers of premium quality, branded food and pet products for the U.S. retail market, generating approximately \$3.7 billion in net sales in fiscal 2010.

Del Monte's website states, "With a powerful portfolio of brands, Del Monte products are found in eight out of ten U.S. households. They have several recognizable pet food and pet snacks brands including Meow Mix, Kibbles 'n Bits, and Milk-Bone.... Food product brands include Del Monte, S&W, Contadina, College Inn, and others. The company also produces and distributes private label food and pet products.

"Del Monte Foods today has a peak employment of 13,600 including a workforce of 5,200 full-time and 8,400 seasonal workers. The company operates 17 production facilities and 6 strategically located distribution centers in the U.S., as well as state-of-the-art food and pet technology centers in Walnut Creek, Calif. and Terminal Island, Calif. Del Monte's Corporate Headquarters are located in San Francisco, Calif. and the Corporate Service Center is located in Pittsburgh, Pa. Additionally, Del Monte has operating facilities and distribution centers in Mexico and Venezuela."

Representatives from Del Monte have visited UC Davis twice; once in April as a prospective member and once in early August after having joined the IPP. Both times they met with representatives from the departments of Food Science and Technology, Plant Sciences, Animal Science, and the School of Veterinary Medicine, as well as attending social functions with faculty and students.



[Del Monte representatives enjoy an afternoon reception with UC Davis faculty and students.](#)

As part of their IPP membership, Del Monte will name a graduate student “fellow” in the company’s name. The “Del Monte Graduate Fellow” will receive \$40,000/year to support his or her doctoral research studies.

For a list of Industry Partnership Program membership benefits, please visit <http://www.rmi.ucdavis.edu/rmi-industry-partnership-program> or contact Andrea Thompson, RMI industry relations manager, at aethompson@ucdavis.edu or (530) 752-1049.

Innovating with T.J. Rodgers and the Cypress Semiconductor Team

By Kathy Barrientes

One of the key factors drawing attention to the new UC Davis LEED Platinum Teaching and Research Winery are the 152 electro-polished, stainless steel fermenters, 200 liters each, and each individually equipped for automated control of temperature and the “pump-over” process during red-winemaking. Each fermentor also has a newly-developed sensor that precisely measures sugar concentration data and transmits this data wirelessly to a central computer.



None of this development would have taken place without a key collaboration between UC Davis and T.J. Rodgers, founder and CEO of Cypress Semiconductor, who put together the team to design and build these fermentors and then gifted them to the university. With an investment of well over \$2 million in equipment and engineering, some donors might have been content to sit back on the sidelines and watch their equipment being used. However, it is clear that T.J. has a passion for innovation and a passion for winemaking, both of which drive him to continue to create new technology.

He and his team recently delivered the third generation of controllers to the winery that integrate all functions into one device. The graduate students that he has funded in electrical engineering in the groups of Prof. Andre Knoesen and Prof. Raj Amirtharajah are busy developing new sensors to integrate into the current system that may someday revolutionize winemaking and winemaking research. This type of sustained engagement and collaborative innovation that this project represents will be key to the continued success of UC Davis and the California wine industry.

“Friends of the RMI” Program Welcomes New Members

By Kim Bannister

A warm welcome to the newest members of the “Friends of the RMI” program:

Director’s Level Members

Al and Margaret Giuliani
Pacific Coast Producers
William and Nancy Roe
Reed and Susan Youmans

Friend Level Members

Ralph and Teresa Aldredge
John and Christine Bruhn

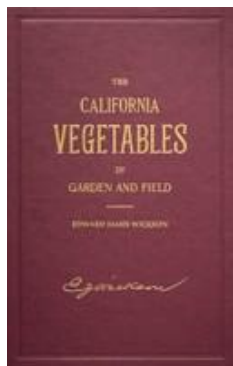
We greatly appreciate the generous support of our friends for outreach and education programs. To review a full list of members, and additional information about the benefits associated with the Friends of the RMI program and how to join, please visit: <http://rmi.ucdavis.edu/friends>



Director of Major Gifts, Melissa Haworth leads Chris Riska of Sysco Foods and latest Friends of the RMI, Brian Hoots of Pacific Coast Producers, and UC Davis student Sharon Kim on a tour of the Robert Mondavi Institute complex.

RMI Historical Agricultural Book Series

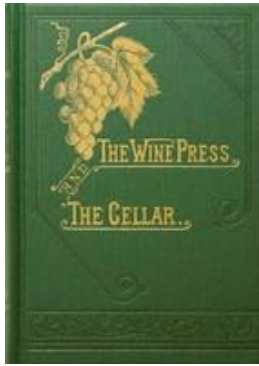
By Axel Borg



On June 11, 2012, the latest book in the Robert Mondavi Institute’s Historical Agriculture Book Series, Edward Wickson’s [*The California Vegetables in Garden and Field*](#) was released. First published in 1897, California Vegetables is the fourth book in the series. To commemorate the release of the book, Dr. Kevin Starr gave a lecture on Edward Wickson and his role in the Progressive movement and the university land-grant system. This book, *The California Vegetables in Garden and Field*, went to multiple editions and served to educate the general public about the cultivation of vegetables and their value in enhancing life. With the release of the fourth book it is appropriate to look back at this project and its role in promoting the mission of the Robert Mondavi Institute for Wine and Food Science.

This series of books was conceived by Fritz Maytag and proposed to Dr. Clare Hasler-Lewis, the executive director. As he described his concept of reprinting significant tomes in the broad subject areas of agriculture, Maytag envisioned well-crafted books that represented the best of scientific information, written for the general public. This in many ways sums up the mission of the land-grant system, of which UC Davis is the pre-eminent campus in the University of California system.

The first book, Rixford’s [*The Wine Press and The Cellar*](#), was chosen for several reasons. First of all it was, and still is to a rather interesting degree, a good, solid book on how to make wine. It was the first technical book on winemaking published in San Francisco. This was in an age when almost all technical and scientific books were published in either Chicago or New York.

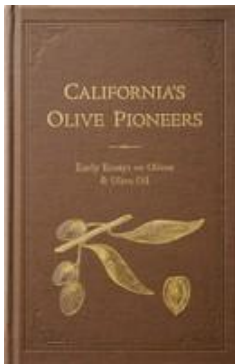


Emmet Rixford was a California wine pioneer and in many ways was an early example of the contemporary model of a successful winemaker.

The work, as reproduced, is quite remarkable for several reasons. The book designer, Will Suckow, found a digital type font that closely resembled the original and then digitally altered it to match the original. He then took a digital version of the book and reformatted it with the newly created digital font. Once that was accomplished, Will Suckow and Dave Burkhart then electronically reset every line of text to match the original. Remember that when originally printed the type in this book was handset and subject to human variation in each line. This was a time consuming

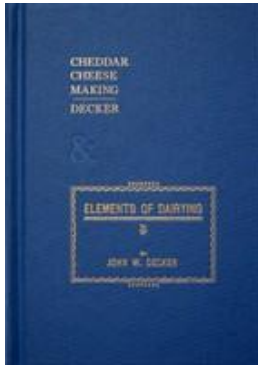
task necessary to insure that the book was not just a digital image of the earlier printing, but a new, electronic setting of the text.

During the course of writing the preface to the book, Paul Draper, legendary vintner at Ridge Vineyards, noted that the illustrations in Rixford's book resembled illustrations in Raimond Boireau's *Culture de la Vigne*. Shields Library at UC Davis had a copy, and when it was checked to compare illustrations it was discovered that that particular copy had been part of Emmet Rixford's personal library and that the illustrations in question had been carefully removed, presumably copied and then carefully pasted back into the book. That discovery led to other books that were also part of the Rixford library and Will Suckow was able to use the original renderings of those illustrations that Rixford had "borrowed" from other authors. To complete the work, Suckow scanned endpapers from the first edition, so that it could be used in the new edition and went to great length creating an embossed cover to capture the original look and feel of the book. The result is nothing less than amazing.



The second book in the series, [California's Olive Pioneers: Early Essays on Olives & Olive Oil](#), brought together for the first time 13 short publications. Some of these were issued as pamphlets, and others as newspaper text, but each played an important part in the early development of olive culture in California. Originally an address to the California Academy of Sciences, one of the essays, the *Culture of the Olive in California* by Benjamin Redding, was first printed as text in various newspapers around the state. Due to space limitations each version differed from the others in that selected text had been omitted. The version published in the RMI work represents the most complete version of Benjamin Redding's very important contribution to California olive culture.

Like the first book, this volume was published with meticulous care and with high-quality materials. With a sewn binding and an embossed cover, augmented with rare photographs and plates and with an original essay by Judith Taylor, M.D., this handsome work was recognized with the 2010 Benjamin Franklin Award for excellence by the Independent Book Publishers Association.



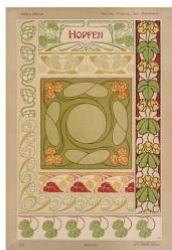
The third book in the series, [*Cheddar Cheese Making, Elements of Dairying*](#) by John Wright Decker, was a departure from California in the sense that Wisconsin is recognized as the early home of scientific cheese making. This work combines two seminal works on dairy science and cheese making by Professor John W. Decker of the University of Wisconsin. Professor Decker wrote the first work, *Cheddar Cheese Making*, because there was a lack of suitable books on cheese making. He also published the book. This work went into multiple editions and along with his *Elements of Dairying*, established Decker as an authority in the field.

The forward for this book is by Professor Mark E. Johnson. As Johnson states in the forward:

“In a manner of speaking, I am a great-grandstudent of John Wright Decker. He was a contemporary of two preeminent agricultural leaders: Dr. Stephen Moulton Babcock (1843–1931), of the Babcock-test-for-fat fame (whose name adorns the building I now work in), and Dr. Lucius Lincoln Van Slyke (1859–1931), whose research Decker cites in *Elements of Dairying*. Van Slyke was the mentor of Dr. Walter V. Price (1896–1995), whose name was attached to the Cheese Research Institute at the University of Wisconsin, where I first started working in 1980 (later the name was changed to the Wisconsin Center for Dairy Research). In turn, Dr. Price was the mentor of my mentor, Dr. Norm Olson. I am fortunate to have such a pedigree.”

Professor Johnson’s pedigree exemplifies the handing down of experience and the building up of knowledge that characterizes the land-grant system. Like *California’s Olive Pioneers*, this book on dairying and cheese making was also a Benjamin Franklin Award-winning book.

The latest book in the RMI series is Edward Wickson’s *The California Vegetables in Garden and Field*. It remains to be seen if it will garner awards. The Robert Mondavi Institute’s Historical Agriculture Book Series owes its existence to the vision and generosity of Fritz Maytag. The excellence of the individual publications is a tribute to the technical abilities and aesthetics of Dave Burkhart and Will Suckow. There is a great opportunity for someone to step forward and continue this series. Many more books in a wide range of agricultural topics remain to be republished. Anyone interested?



Copies of these books, as well as the commemorative posters from the grand opening of the [Teaching and Research Winery](#) and the [August A. Busch III Brewing and Food Science Laboratory](#) and release of *The California Vegetables in Garden and Field*, are available for purchase. Please contact Debbie Norden, dlnorden@ucdavis.edu or (530) 754-6349. You may also purchase the series or individual items at the [UC Davis Stores](#).

Proceeds from sales of the books will be used to support RMI programs.

Uncorked at the Mondavi Center

By Kim Bannister



“Uncorked,” the highly successful partnership that began in 2011 between the Robert Mondavi Institute and the Mondavi Center for the Performing Arts, is finalizing plans for the 2012–13 season.

Join us in celebrating the perfect pairing of art, food and wine in honor of Robert and Margrit Mondavi’s vision to live life to its fullest.

September

- 18 [Bonnie Raitt](#), [Justin Vineyards & Winery](#)
- 27 [San Francisco Symphony](#), [Chimney Rock Winery](#)

October

- 6 [Rising Stars of Opera](#), [Casque Wines](#)
- 25 [From The Top with Christopher O’Riley](#), [UC Davis Oakville Station](#)

November

- 7 [Philharmonic Baroque](#), [Carol Shelton Wines](#)
- 16 [David Sedaris](#), [Senders Wines](#)

December

- 5 [Danú](#), [Boeger Winery](#)

January

- 6 [Monterey Jazz Festival](#), [Pine Ridge Vineyard](#)
- 25 [Yo-Yo Ma](#), [Robert Mondavi Winery](#)

February

- 7 [Kodo](#), [ZD Wines](#)
- 16 [Itzhak Perlman](#), [Valley of the Moon](#)

March

- 7 [Sarah Chang](#), [Michael David Winery](#)
- 19 [Jazz at Lincoln Center](#), [Ramey Wine Cellars](#)

April

- 5 [Bobby McFerrin](#), [Groth Vineyards & Winery](#)
- 19 [Arlo Guthrie](#), [Trefethen Family Winery](#)

May

- 3 [Christopher Taylor](#), [Flowers Winery](#)
- 23 [David Lomeli](#), [Francis Ford Coppola Winery](#)

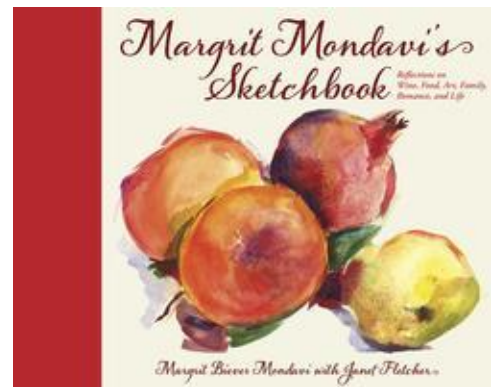
Donors to the Robert Mondavi Institute who wish to attend an Uncorked event should contact Clare Hasler-Lewis at cmhasler@ucdavis.edu or Kim Bannister at kbannister@ucdavis.edu for additional information.

Margrit Mondavi Reflects on Her Life in New Book

By Clare Hasler-Lewis

On July 12, 2012, the Robert Mondavi Winery honored the extraordinary life of Margrit Mondavi, its vice president of Cultural Affairs, with the much-anticipated release of *Margrit Mondavi’s Sketchbook: Reflections on Wine, Food, Art, Family, Romance and Life*. The elegant 147-page hardcover book highlights a collection of intriguing personal stories, including reflections on her life with the late Napa Valley iconic vintner, Robert Mondavi, and a foreword by renowned chef

Thomas Keller. Written with the help of James Beard Award-winning food columnist and author Janet Fletcher, and enriched with Margrit's own art/watercolor drawings, *Margrit Mondavi's Sketchbook* celebrates a lifelong commitment to creating a food and wine culture in Napa Valley through original, innovative programs that have become benchmarks in the culinary and art worlds.



A number of Mondavi's close friends contributed their own personal stories and anecdotes to provide an authentic, narrative portrait of Mondavi. "She has become, for me, a model of how to live and regardless of age touch people's lives for the better. She lives in style but her tastes remain simple, and her capacity for relishing the dawn of each day should inspire us all," says Janet Fletcher.

Margrit Mondavi, who was born in Appenzell, Switzerland, is a pioneering woman of the modern-day California wine industry. She joined the winery in 1967, pursuing a life-long interest in uniting wine with fine arts, music, and culinary artistry. With the enthusiastic support of her late husband, Robert Mondavi, she created a showplace for painters, sculptors, photographers, jazz and classical musicians, and the great chefs and winemakers of the world. An accomplished linguist, Mondavi serves as an ambassador for the winery to a wide range of international audiences. She enjoys painting and bringing the family together with her cooking, and ensures each mealtime is a true celebration.

Flynn Brings Olive Oil Education to Washington D.C. Festival

(Adapted from a July 13, 2012, Olive Oil Times article written by Lara Camozzo)



The [Smithsonian Folklife Festival](#) is held every year on the National Mall in Washington, D.C. Each year sees three new festival themes. This summer, the 46th edition of the festival featured the USDA and the [Land-Grant University System](#) — a partnership that is based on legislature signed by Abraham Lincoln 150 years ago in an effort to grant land and establish universities, and help facilitate the economic development of agriculture in the United States.

There are a number of land-grant universities in the country, and the University of California, Davis, is one of them. The Smithsonian was interested in highlighting sustainability and that's when the UC Davis Olive Center came to mind.

As a biking campus, the olive trees that lined a heavily traveled bike path at UC Davis would fall on the ground and create an extremely slippery surface. In 2004, it was calculated that olive-related accidents on the campus amounted to \$60,000 in legal costs and liability claims.

Sal Genito, then-director of buildings and grounds, suggested harvesting the olives for oil as a sustainable solution to this costly hazard. In 2005, the campus harvested a couple of tons of olives for the first time, and thanks to the community embracing this idea, they sold out of the [olive oil](#) within days.

Around the same time, Dan Flynn was finishing 17 years as a legislative consultant in Sacramento. When a group of University of California and UC Cooperative Extension olive supporters proposed an educational center for olives and olive oil under the Robert Mondavi

Institute for Wine and Food Science, Flynn was a logical choice as the inaugural executive director in 2007. The UC Davis Olive Center was then launched in 2008.

Today, the center produces almost 600 gallons of olive oil during a good harvest. Next year will mark the first harvest of the eight acres of olive trees that have been planted on campus since the inception of the program. Proceeds go toward some of the Olive Center's budget.

Flynn, who is now the executive director of the Olive Center, shared his experience at the Smithsonian Folklife Festival. "At the festival we talked about this sustainable solution to this problem on campus, but we also talked about how olive oil is made, what are some of the attributes of good olive oil and the defects of bad oil, and we had people smell samples of familiar oil versus fresh oil," said Flynn.



"One of the things we're looking to do is help consumers get better quality, so we suggest that they look for a harvest date on the label. We're trying to impress upon them the importance of freshness, because olive oil is a natural product and it's better when it's fresher.

"We also discussed the studies that (the Olive Center) did which found that a high percentage of the imported supermarket olive oil wasn't up to extra virgin standards. We found that there are a lot of people who were surprised by this, and while some people could smell the difference between the sample oils, others were very savvy when it came to olive oil — it was quite a range."

Flynn also held a few demonstrations, touching on the myths of olive oil. For example, the myth that you can't fry with extra virgin. Flynn wowed the crowd when he fried potatoes in [extra virgin olive oil](#), "and the sky didn't fall."

UC Davis Olive Center is Top-Grade

(Adapted from a July 18, 2012, Davis Enterprise article written by Matthew Blackburn)

Yolo County is home to the only center in North America devoted to researching and supporting the many facets of the olive industry.

The Olive Center, established at UC Davis four years ago, has made strides in helping the olive industry improve. It also caused an international stir last year when a joint study with the Australian Oils Research Laboratory found 69 percent of olive oil on California supermarket shelves was rancid.

Although Americans are the third-largest consumer of olive oil in the world behind Italy and Spain, 98 percent of this heart-healthy oil comes from abroad.

"When you're dealing with an issue that's having an economic impact in some of these countries, it's



Executive director of the UC Davis Olive Center at the Robert Mondavi Institute, Dan Flynn.
Photo: Sue Cockrell

understandable that some of these people have reacted strongly to it,” said Dan Flynn, executive director of the UC Davis Olive Center.

Selina Wang, research director at the UC Davis Olive Center, said a separate study found that 70 percent of U.S. consumers prefer rancid oil because it is the flavor they are used to. Oil purchased at the supermarket may be up to two years old and may sit at home in consumers’ cabinets for an additional year.

“The consumers have to be educated, food buyers have to be educated and start ... demanding higher quality products,” said Wang, who earned her Ph.D. in organic chemistry at UC Davis and oversees the laboratory where graduate and undergraduate students conduct experiments on various issues pertaining to table olives and olive oil research and education.

“If you give (consumers) really fresh olive oil, it should taste bitter and pungent,” Wang said. “The bitterness and the spiciness on the back of your throat should make you cough.”

According to Flynn, a former organic farmer and legislative consultant in Sacramento for more than 17 years, the goal of the Olive Center is to provide service to the olive industry to help it produce better quality olives and be more efficient.

“We really wanted to put it out there that we wanted to do for olives what UC Davis has done for wine,” Flynn said.

According to the Yolo County Agricultural Commissioner’s office, of the 30,000+ acres planted statewide, Yolo County is home to 4,000 acres of olives and it expects to gain an additional 1,000 acres within the next year.

“He is very good at talking to people,” said Wang regarding Flynn’s ability to bridge experts with people in the industry who need help. “It doesn’t matter who they are — a farmer, a CEO of a huge importer — he talks to you the same way.”

The UC Davis Olive Center is an umbrella organization, which Flynn coordinated, encompassing more than 30 professors and research specialists from a variety of disciplines across the campus — food chemists, plant scientists, agricultural engineers, economists and farm advisors who had an interest in helping the olive industry.

Flynn recognized the growing olive industry was in need of support when he was recruited near the end of his career as a legislative consultant by Sal Genito, former UC Davis director of buildings and grounds, to write a feasibility report for harvesting and processing the olives growing on the trees around campus as an alternative to hauling the fruit off to landfills.

The olive trees paralleling Russell Boulevard’s heavily traveled bike path on the north end of campus would drop fruit for months, making the path slippery and hazardous for students biking to and from school and costly for the grounds keepers to maintain.

“Not knowing a whole lot about olives wasn’t a deterrent,” Flynn smirked, retelling how he talked to industry experts and studied up on olives until he felt 90 percent more knowledgeable than the next guy.

“I was interested in food and the research that I did was kind of similar to the research I did when I worked for the legislators, because I was accustomed to working in many different areas.”

Flynn said the university wanted to be better connected to the food and beverage industry with the formation of the Robert Mondavi Institute on campus, so he suggested starting the Olive Center.

“It was something I was used to doing with legislators — throwing out ideas and it got some initial positive response,” he said.

According to Flynn, olive trees have certain attributes that make them ideal for California’s economy and Mediterranean climate — low water use, low pesticide use, and an ability to grow in poor soils. The production of olives in California is growing rapidly, generating 1.2 million gallons of olive oil last year and an anticipated increase to 5 million or more gallons in the next three years.

“It is growing fast,” Flynn said.

However, Flynn explains that the price of olive oil imported to the U.S. from abroad is at a historic low compared to oil produced domestically because — unlike Californian olives — it is subsidized, controlled by a handful of companies and made from lower quality oils and sold as extra virgin.

“Those are challenges that the growers here need to overcome,” Flynn said. “The politics get woven into this with standards and quality.

“The International Olive Council and the European Union are assessing their standards with the thought that they need to be a little stricter because so much bad olive oil we analyzed was able to pass the chemistry standard but the oil tasted rancid,” he said. “That shows that the standards are way too loose.”

Flynn says olive oil is one of the few food items that has a sensory panel to help determine if it contains defects and establish a pure or extra virgin grade.

The center’s sensory panel “is actually a tool that a producer could use here to analyze the quality of their oil and see if it makes the grade,” Flynn said. “It could be a retailer or super market chain deciding whether or not they are pleased that the oil meets their specifications.”



Research director of the UC Davis Olive Center at the Robert Mondavi Institute, Selina Wang. Photo: Sue Cockrell

When Flynn and Wang began the 1 1/2-year study of olive oils across California’s supermarkets, they used a list of top-selling brands and collected oil from grocery stores from the Sacramento region to San Francisco and Los Angeles.

“What I realized was how confusing it was for the consumer,” said Wang, who is overseeing multiple research projects simultaneously at the Olive Center. “I literally saw people stand in front of the shelves staring at all the olive oils, and then they would just end up randomly picking one up.”

According to Wang, consumers should avoid purchasing olive oil packaged in clear bottles because even if the oil was good when it was produced, the oil deteriorates quickly when it is exposed to light. Plastic bottles were found to be the worst packaging as oxygen and light can penetrate it — allowing the oil to go rancid quickly.

“It is not easy to predict the shelf life of the oil,” Wang said about the Olive Center’s most recent research project to determine the best-by date of oil. “It depends on the antioxidants, fighting off oxidation. The more antioxidants the oil has, the longer shelf life it will have.”

Wang is also working on a project to determine if the refrigeration of olive oils affects its chemistry.

Flynn said that the overall response from the university and the industry has been very supportive. "I think it's a pretty good model of what you can do with a limited budget and thinking creatively to allow the university to help the industry and fulfill its mission," said Flynn.

The UC Davis Olive Center has grown to sell a variety of products to the public including olive oil, table olives, and skin care products, as well as host educational seminars.

"It's pretty phenomenal what you can do when you put a scientist and a politician together," said Wang, with a laugh. "Although, I don't think (Flynn) thinks of himself as a politician."

Institute Welcomes New Staff

By Clare Hasler-Lewis

The Robert Mondavi Institute continues to grow; we are pleased to welcome two new staff members: Tracy Dickinson and Debbie Norden.



Dickinson joined the RMI as a temporary employee in February and now serves as a full-time event coordinator. Dickinson has a bachelor's degree in English from Saint Anselm College in Manchester, New Hampshire, and a minor in communications and Spanish. After earning her degree, she served as a Peace Corps volunteer for two years, where her main focus was establishing a library at a local school in Nicaragua. She earned a Master of Education degree at Salem State University in Massachusetts, and worked as a teacher for a number of years. Recently, she relocated to the West Coast from Boston, and was eager for the opportunity to work in higher education.

As an event coordinator at the RMI, she feels fortunate to interact with highly innovative faculty, staff, and students and organize events that "enhance our quality of life through wine, brewing and food sciences."



Debbie Norden joined the RMI as an administrative assistant in July after serving as a temporary employee for several weeks. Prior to joining UC Davis, Norden attended a year-long business school where she received certifications for accounting specialist, administrative assistant, and Microsoft Office Suite programs. She also participated in two internships. Norden has 10 years of administrative assistant, customer service, and financial billing experience, most of which she did as a manufacturer representative in the lighting field. Debbie Norden is a Northern California native, and is excited about becoming part of UC Davis and the RMI team.

Please stop by the RMI Sensory Building and say hello to Tracy Dickinson and Debbie Norden.

Students Support the Robert Mondavi Institute

By Kim Bannister

Over the years, we have had the great privilege to work with some truly exceptional students from the departments of Food Science and Technology, and Viticulture and Enology. Their support has made events shine and has added that personal touch to tours that make visits to the Robert Mondavi Institute a truly special experience. We ask that you join us in thanking

Justin Ang, Ali Bouzari, Megan Clements, Alexander Combe, Benjamin Golomb, Matt Held, Keren Kles, Rebecca Kuehn, Sean LaFond, Ali Schultz, Kirk Smith, and Henry Yeung. A special thanks to those who have recently graduated:



Back row, from left: Alexander Combe, Kirk Smith, Kim Bannister, Ali Bouzari, Justin Ang, and Matt Held. Front row, from left: Clare Hasler-Lewis, Rebecca Kuehn, Ali Schultz, and Keren Kles.

- **Alexander Combe** – A master's degree student in brewing and fermentation science in Charlie Bamforth's lab, Combe says Professor Charlie Bamforth is without a doubt his favorite professor. "He made course work that was initially light years beyond my comprehension, enjoyable and comprehensible."
- **Rebecca Kuehn** – Kuehn left us to begin her career in product development with Nestle USA-Confections & Snacks in Milwaukee, Wis. after completing her M.S. in food science. Her research concentrated on lipid migration in milk chocolate bars containing almonds under the direction of her favorite professor, Charles Shoemaker.
- **Ali Schultz** – What stops pulp in your juice from settling? Ali Schultz studied the effects of pH and enzymes on the cloud stability in carrot juice. She leaves us to work as a sensory scientist for New Belgium Brewery, after graduating with a food science degree where she concentrated on food chemistry while working in Diane Barrett's lab.
- **Kirk Smith** – Kirk Smith's favorite event showcases his field of study and his favorite foods — Cheese Loves Beer — as it has "an enormous turnout and is an incredible networking opportunity." One of the key sponsors over the years is local brewery Sierra Nevada Brewing Company, where Kirk will apply his M.S. in food science, concentrating in brewing and fermentation.

Until we see you again, we wish you tremendous success and happiness.

Dannon Probiotics Fellowship, an Initiative to Promote Education in the Field of Probiotics

(Adapted from a July 9, 2012, Business Wire press release)

The Dannon Company is pleased to announce Nicholas Bokulich from the University of California, Davis, as the first recipient of the Dannon Probiotics Fellowship Program. The Dannon Probiotics Fellowship Program was created to support the education of a student who excels in science and shows a strong interest in the field of probiotics. Probiotics have become a main focus of research for food scientists in the last decade. Yet, there are very few scholarships and grants available to help education in the field. As a company leading the way in



probiotic research and education, The Dannon Company hopes this fellowship will help instill enthusiasm for probiotics in the next generation of scientists.

Selected from a pool of qualified and talented candidates, Nicholas Bokulich was chosen due to his strong interest in probiotics and commitment to advancing health through scientific research. As a doctoral candidate with the Mills Research Group at the University of California, Davis, he focuses on the use of foods as a delivery vector for beneficial bacteria in the human diet.

Bokulich will receive one year's tuition (up to \$25,000) to support his continued academic pursuits in the field of probiotics. He will also receive an all-expense paid trip to the Danone Research Center in France where he will have the opportunity to network and learn from over 300 top scientists conducting studies on probiotics, physiology and nutrition, sensorial analysis and consumer behavior as well as product prototyping.



About the Dannon Probiotics Fellowship Program

To qualify for the Dannon Probiotics Fellowship Program, applicants had to be currently enrolled in or applying to a full-time graduate program with a focus on probiotics (e.g., probiotic mechanisms of action, probiotics foods, probiotics supplements, and clinical research). Only incoming or current graduate students

18 years of age or older, that would be able to utilize the scholarship funds for the fall 2012 semester at an accredited U.S. institution were considered. Applicants were required to submit a complete application package, including a personal essay, recommendations from two professors, and proof of good academic standing. Current graduate students, or those considering continued education, who have a demonstrated interest in probiotics are encouraged to visit www.dannon.com periodically for updates and future opportunities.

UC Davis is Recognized as America's 'Coolest School'

(Adapted from a August, UC Davis Today article)

Sierra magazine has named UC Davis the [nation's "Coolest School"](#) for its sustainability and climate change efforts.

An international powerhouse in the environmental sciences, UC Davis ranked No. 1 among the 96 top colleges and universities surveyed. Learn more from the magazine's [Cool Schools 2012 video](#).

In bestowing the "Coolest School" ranking, the Sierra Club's official publication praised UC Davis for establishing rigorous green purchasing standards; diverting nearly 70 percent of campus trash from landfills; and offering an extensive transportation system that includes the student-run, natural gas-powered Unitrans bus service, 42 miles of bike paths and 21,000-plus bike parking spaces on its 5,300-acre campus.



Other ways that UC Davis has distinguished itself, according to *Sierra* magazine, include:

- a Climate Action Plan to reduce greenhouse gas emissions below 2000 levels
- a Smart Lighting Initiative to reduce electrical use by 60 percent by 2012
- buying more local and organic food products for campus dining

Whether in faculty research, classroom learning or campus operations, sustainability is a major theme at UC Davis, said Chancellor Linda P.B. Katehi.

“At UC Davis, [sustainability](#) is one of our core values,” said Katehi, whose [blog](#) discusses the honor. “I am very proud of the students, faculty and staff who have worked so hard to make this achievement possible and to invest in a more sustainable future for our campus.”

Read more about the [Sierra magazine rankings](#) and UC Davis [sustainability efforts](#). A [brochure](#) and an [interactive, online map](#) with a [PDF](#) version offer more information about UC Davis sustainability efforts.

Beer Foam Examined in New Book by UC Davis Brewing Expert

(Adapted from a May 2, 2012, article by Pat Bailey, UC Davis News Services)

Foam capping a glass of beer is not just a frothy byproduct of the brewing process but a key component of beer quality and consumer satisfaction, writes highly acclaimed brewing scientist Charles Bamforth of the University of California, Davis, in a new book, “Foam.”

“Foam,” published by the American Society for Brewing Chemists, is the first in what Bamforth plans as a six-volume series. “The Practical Guides for Beer Quality” series is intended to help brewers, retailers and consumers ensure excellence in their beer.

Foam, notes Bamforth, is of utmost importance to beer quality when the beverage is consumed from a glass, rather than from a can or bottle.

“Despite my frequent protestations that the only civilized way to sip beer is from a glass, I am prepared to admit that there are drinking occasions when the informal approach is relevant — when fishing, for example,” Bamforth writes. “I do not fish,” he adds.

Bamforth goes on to share research findings from several consumer perception studies on beer foam conducted in California, England, Japan, Germany, Belgium, Finland, Ireland, Scotland and the Czech Republic. Findings from those studies include:

- U.S. consumers favor a good head of foam on their beer;
- Most beer drinkers don’t like excessive foam;
- Many consumers find that foam makes beer look colder; and
- Men tend to appreciate foam more than women.

Throughout the remainder of the 72-page, paperback book, Bamforth examines the more technical aspects of beer foam. These include physical and chemical factors of foaming; the impact of raw materials, processing and dispensing on foaming; measuring foam; and how to address foaming problems.

“Anyone who wants to know how to pour the perfect pint will find the answers here,” Bamforth says.



“Foam”, published by the American Society for Brewing Chemists is the first in what Charlie Bamforth plans as a six-volume series. Photo: Karin Higgins, UC Davis

The book also includes a discussion of “gushing,” that sudden, uncontrolled release of foam when the beer can or bottle is opened. Bamforth advises that “beer does not take well to shaking,” and dispels the myth that gushing can be prevented by simply allowing the beer to stand and settle.

The new book is available for \$39.95 from the American Society for Brewing Chemists’ online store at <http://www.asbcnet.org/>.

Bamforth, who is the Anheuser-Busch Endowed Professor of Malting and Brewing Sciences, began his work in the brewing industry in 1978.

In 1999, he joined the faculty at UC Davis, where the brewing science program is the oldest and most acclaimed of its kind in the United States. It has been an integral component of the UC Davis Department of Food Science and Technology since 1958, graduating hundreds of students who have gone on to careers in the brewing and brewing-supply industries throughout North America and beyond.

Before coming to UC Davis, Bamforth was the deputy director-general of Brewing Research International and research manager and quality assurance manager of Bass Brewers.

In addition to his faculty appointment at UC Davis, Bamforth also serves as a special professor in the School of Biosciences at the University of Nottingham, England, and is a fellow of the Institute of Brewing and Distilling, the Society of Biology, and the International Academy of Food Science and Technology. And he is editor-in-chief of the *Journal of the American Society of Brewing Chemists*.

He has written numerous books on beer and brewing including “Beer Is Proof God Loves Us,” published in 2010.

More information on Bamforth’s books is available at:
<http://foodscience.ucdavis.edu/bamforth/BookLinks.html>.

In Brief

Support Our Students at the Annual FSGSA Garage Sale – Saturday, September 8

Join us on Saturday, September 8, from 8:00 a.m. to noon at 1314 Oak Avenue in Davis, in support of the Food Science Graduate Student Association (FSGSA) at UC Davis. The annual event is the largest fundraiser of the year, providing much-needed funds for guest speakers, tours of local food companies, and to host fun events like the Food Championship and Iron Chef-style competition. For additional information on the event, please contact [Rebecca Johnson](#) or [John Frekla](#). For additional information on FSGSA, please visit <http://fsgsa.ucdavis.edu>

Dr. Christine Bruhn Honored by the International Association for Food Protection

At their [annual meeting](#) in July in Providence, Rhode Island, the International Association for Food Protection recognized [Dr. Christine Bruhn](#) as a fellow of the association. She was recognized for her research and educational leadership in food protection and food safety communications, communicating science-based information to advance food protection with food professionals and the public.

Edwin Frankel Shares UC Davis Olive Center Research in Granada, Spain

During a recent visit to Granada Spain, senior scientific advisor [Edwin Frankel](#) went on an extensive tour of several research groups working on functional foods, bioactive compounds, polyphenols in food, nutraceuticals, bioactive polyphenols and metabolomic studies using mass spectrometry, as arranged by Antonio Segura-Carretero, Department of Analytical Chemistry, University of Granada. The trip included an invitation to participate in a Ph.D. candidacy of Professor Segura-Carretero's students, and lecture on our research in olive oil, olives, lipid oxidation and antioxidants.

Professor Emeritus David Reid Earns International Association for Food Protection Award

The [Frozen Food Foundation Freezing Research Award](#) was presented to [Professor emeritus David Reid](#), Department of Food Science and Technology, UC Davis. His primary focus has been in physical chemistry, with an emphasis in the physico-chemical characterization of the influence of water in foods while serving a postdoctoral year in the Unilever Research Laboratory in Colworth. In 1981, Reid joined the department of Food Science and Technology, where he continued his studies in the role of water in foods, particularly the freezing process in tissues. The [International Association for Food Protection Award](#) honors an individual, group, or organization for preeminence and outstanding contributions in research that impacts food safety attributes of freezing. Congratulations to Professor Emeritus David Reid.

Charlie Bamforth Elected Vice President, Institute of Brewing and Distilling

On July 4 in Drummur Castle, Banffshire, Scotland, [Dr. Charlie Bamforth](#) was elected vice president of the Institute of Brewing and Distilling, the London-based global society dedicated to the education and training of brewers and distillers. He will serve in this role for two years before moving into the presidency for 2014–2015 and 2015–2016. Bamforth has dedicated long service to the organization, from the time as a young recruit to the industry in the late '70s when he was responsible for making reports on the meetings held at the historic Horseshoe Hotel on London's Tottenham Court Road. He has served as chairman of its Research and International Committees, member of the Executive Board and Council and as an examiner for its world-class brewing examinations. He has also been a member of the Editorial Board of the *Journal of the Institute of Brewing* for many years. He has been a fellow of the institute for many years.

Kyria Boundy-Mills' Research Makes Cover of Microbiology Journal

Food Science and Technology specialist [Kyria Boundy-Mills](#) is the curator of UC Davis' Phaff Yeast Collection. In July, her work made the cover of *Applied and Environmental Microbiology* with the article, [Associations of Yeasts with Spotted-Wing *Drosophila* \(*Drosophila suzukii*; Diptera: Drosophilidae\) in Cherries and Raspberries](#). To summarize, the fruit fly *Drosophila suzukii* appeared in California a few years ago, causing major crop damage to soft fruits such as berries. Dr. Boundy-Mills collaborated with UC Davis entomology professor Frank Zalom, his graduate student Kelly Hamby, and visiting professor Alejandro Hernandez to improve detection and control methods through a study of yeasts associated with *Drosophila suzukii*-infested cherries and raspberries. They found that one species of yeast, *Hanseniaspora uvarum*, was in just about every cherry, raspberry, and larva that they sampled. Tests are now being performed to see if this species will be a good lure to detect this fly in the field. To read more about the: [Phaff Yeast Collection](#).

Upcoming Events

- [Uncorked 2012-13 Season](#)
- [Best of the Barrel](#), September 28, 2012
- [Bounty of Pollination](#), October 27, 2012
- [Terroir 2012](#), November 9–10, 2012
- Coffee and Health, January 26, 2013

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