# CASES OUTLOOK

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BOLD VISION, BRIGHT FUTURE

THE ROBERT MONDAVI INSTITUTE FOR WINE AND FOOD SCIENCE

# CASES OUTLOOK

**Message From the Dean Bold Vision, Bright Future New Department Leadership Communications Development Student Services and Outreach** Picnic Day 2002 **Award of Distinction Students Faculty** Research In Memoriam **Alumni Directory** 

CA&ES Outlook
is a publication of the
College of Agricultural and
Environmental Sciences

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### **Message From the Dean**

By Neal Van Alfen

The largest gift in the history of UC Davis, and one of the largest by an individual to the University of California, is something to celebrate. On Sept. 19, 2001, UC Davis announced that it had received a \$25 million gift to build the Robert Mondavi Institute for Wine and Food Science (RMI). Governor Gray Davis came to campus,—along with President Richard Atkinson, members of the Board of Regents and friends of the campus.

The most moving part of the day, however, occurred during a breakfast meeting prior to the news conference. Members of the departments of viticulture and enology and food science and technology, and our college's department chairs and management services officers, had been invited to that meeting. No one knew why the breakfast meeting was called—no word of the gift had leaked prior to the announcement.

About the time that I finished describing the nature of the gift to the breakfast attendees, Chancellor Larry Vanderhoef brought Robert and Margrit Mondavi into the room. The 100 or so people present immediately rose to their feet to loudly applaud Robert and Margrit. When asked to say a few words, both thanked the faculty and the university for what we have done for them. The generosity of the gift, and the sincerity of their remarks, were appreciated by all present.

#### **Building for Tomorrow**

Planning for the vision that would become the RMI began 18 months ago. The campus had provided the college with an allocation of \$33 million from the university's state-funded capital improvement program. This amount, while very generous, would have built only a small, modern academic/research building.

After seeking advice from our department chairs, the Dean's Advisory Council and a group of advisers representing the various constituencies served by the college, we made the decision to seek funding sufficient to build a facility to house our departments of viticulture and enology and food science and technology. The estimate for a building this size is \$75 million. We knew that this would be risky; but, following Chancellor Vanderhoef's visionary lead with the Robert and Margrit Mondavi Center for the Performing Arts, we believed it was a challenge worth pursuing.

When the opportunity arose for Chancellor Vanderhoef, V&E chair Jim Wolpert and I to make a presentation to Mondavi representatives, we had a carefully considered plan to present.

#### Inspiring the Institute

The creation of the RMI is something much bigger than a building. The nuts, bolts and vision of the RMI are being created by a faculty committee representing our college and other parts of campus. The committee is led by Professor Robert Powell of the Department of Chemical Engineering.

This institute is also more than the sum of two departments. It will encompass these departments and will link them-along with nutrition, healthy foods, safe foods and the appreciation of quality-into a single institute. We believe the Robert Mondavi Institute will become a destination for scholars throughout the world interested in the quality of life. Building on the foundation of our two departments-each having been recognized as among the best in the world in their respective areas of scholarship and teaching-this institute is certain to flourish.

#### **Rewarding Our Research**

It is obvious from the remarks made by the Mondavis at the announcement ceremony that their gift had its origins many decades ago and recognizes the efforts of many faculty, staff and students who have worked to make the wine industry of California the success it is today. As exemplified by our work with the wine industry, we play an important role in supporting many aspects of California's economy.

The wine industry currently is estimated to provide over \$33 billion to the economy. Many would argue that our educational, research and outreach programs have played a vital role in the ascent of the California wine market. The partnerships we have do not operate in only one direction, since our funding comes primarily from state and federal taxes paid by our constituents and from self-taxing industries involved in commodities.

These funds are critical to our success; however, they are not enough. Quality education must be supported, year in and year out. Funds to build a state-of-the-art academic/research building costing \$75 million will be derived from three sources: 1) the generous gift from the Mondavis (\$25 million); 2) the state-funded portion (\$33 million) of the buildings for the RMI will be derived from an upcoming state bond election for K-higher education capital improvement bonds; 3) the balance \$17 million must be raised through gifts, such as that from Robert Mondavi.

It is our goal that all of our donors might feel as Robert and Margit Mondavi expressed in their remarks to our faculty—a deep appreciation for the role of our college in their careers and in their lives.



Neal K. Van Alfen(Ph.D., '72, Plant Pathology) Dean, College of Agricultural and Environmental Sciences

## **BOLD VISION, BRIGHT FUTURE**

#### THE ROBERT MONDAVI INSTITUTE FOR WINE AND FOOD SCIENCE

By Clifton B. Parker

When legendary wine maker Robert Mondavi donated \$25 million to UC Davis in September 2001, he did more than just make philanthropic headlines nationwide. He positioned the university as a global innovator in the wine and food sciences for a long time to come.

For years, UC Davis has ranked among the world's most renowned research institutions in the wine and food sciences. The difference now is that Mondavi's gift presents the college with a rare opportunity to take these distinguished programs to the next level by hosting them in a highly sophisticated research facility—the Robert Mondavi Institute for Wine and Food Science.

Maybe Mondavi says it best. "You have an opportunity to make a bold vision into a bright future."

The facility itself comes at a critical time, as an obvious need exists to replace the crowded and outdated viticulture and enology facilities currently housed in Wickson and Cruess halls. These 50-year-old buildings are inadequate for the level of research demanded in today's accelerating world.

Now, the college will move the departments of viticulture and enology and food science and technology under one spacious roof in the Robert Mondavi Institute.

With details still to be decided, the institute will include an academic building of approximately 75,000 square feet for classrooms, laboratories, offices and meeting rooms. A 13,000 square-foot food processing plant, and a 36,000 square-foot teaching and research winery will be constructed within the institute. These numbers reflect high-level resources being allocated to faculty and students.

Neal Van Alfen, dean of the College of Agricultural and Environmental Sciences, says the institute will boost research efforts on many fronts. "In the past, we've been limited by facilities," he said. "And while that's true across campus, it's been an especially acute problem here. The Mondavi gift begins to open new horizons free of those limitations."

In particular, Van Alfen said, the institute will allow UC Davis to expedite transfer of new research findings to the public sector.

On the visionary angle—where Mondavi likes to dwell—the institute will provide the best and brightest minds in wine and food science. With its eminent faculty and prolific research expertise, the institute will be the largest and most prestigious wine and food science academic program in the world.

Planning for the Robert Mondavi Institute is well under way, with groundbreaking expected in 2004.

"...the institute
will be the largest and
most prestigious wine
and food science
academic program in
the world."

- Neal Van Alfen

UC Davis is accustomed to finding glory in grapes. Today, more than 95 percent of the grapes grown in the U.S., and many of those grown around the world, come from plants originated at UC Davis. At the turn of the century, UC Berkeley Professor Eugene Hilgard brought European grapes to the early wine growers in the Napa and Sonoma valleys. With these grapes, California has become one of the world's leading wine producers.

The Department of Viticulture and Enology continues Hilgard's legacy, training many of the owners and operators of California's wineries—including those at the Mondavi winery.

This sense of cooperation between private enterprise and public education is paramount. The Robert Mondavi Institute will become a place where students participate with faculty and wine makers in the creation of new knowledge and where numerous food and wine programs from around the world join together in research pursuits.

The center will draw upon the talents of wine makers, faculty and students outside those departments who are interested in the wine and food sciences, thereby creating an opportunity for many departments on the UC Davis campus to participate in institute activities.

## Private Support of Public Knowledge

Years ago, Robert Mondavi realized the college could benefit from upgrading its facilities.

"I knew they needed more money for their research work," he said, "and I knew they weren't getting money from the industry. I knew that with further research we could improve wine making. The Department of Viticulture and Enology obviously needs renovation. The ideas are there and the old buildings really need renovation. We felt that for many years."

The institute will serve students and faculty, and the public will be invited to participate in numerous educational programs at the winery, brewery and food processing plant. And nearby, the Robert and Margrit Mondavi Center for the Performing Arts—completed with a \$10 million gift from the Mondavis—will spotlight some of the finest arts entertainment in the Central Valley.

The Robert Mondavi Institute will be located on Old Davis Road just



## Laying the Groundwork for the Robert Mondavi Institute

One of the goals behind the new institute is to foster collaborative relationships and dynamic initiatives among researchers. To reflect this inclusive theme, a diverse faculty committee is laying the organizational groundwork for the Robert Mondavi Institute. Many disciplines from across campus are represented.

Robert Powell, professor of chemical engineering, chairs the committee that includes wine researchers Linda Bisson and Andrew Waterhouse; food scientists John Krochta and Stephanie Dungan; nutritionist Janet King; Robert Smiley, dean, Graduate School of Management; and Charles Shoemaker and James Wolpert, chairs of the food science and technology department and viticulture and enology department, respectively. DeeDee Kitterman, executive director of research and outreach, represents the Dean's Office.

"Bob Mondavi affirmed what many around the world know—that UC Davis is unquestionably the nexus for wine and food science," Powell said.

The committee is proposing the organizational structure for the institute, recommending bylaws and a mission statement, and advising on educational, outreach and development activities.

Because one of the key roles of the institute is to foster collaboration between academia and private industry, food and wine industry members and faculty members are consulting with the committee during the planning process.

"The college is enthusiastic about the synergy that will result from having both departments together under one roof while also reaching out to other disciplines," said Neal Van Alfen, CA&ES dean.

"The Robert Mondavi Institute will be the unrivaled, international center for wine and food studies. This committee will develop the organizational structure needed to turn our vision for the institute into a reality."

west of the Mondavi Center for the Performing Arts.

Private donations are critical as UC Davis accommodates a huge influx of new students in the next decade. Because the university receives about a quarter of its annual operating budget from the state, it increasingly depends on sources of revenue from the private sector. These outside dollars allow UC Davis the flexibility to build new facilities, recruit faculty, better educate students and undertake new research.

Why would somebody like Robert Mondavi give millions of dollars to a university? The answer is clear. He believes in the private support of public knowledge. It's one of the themes of his life.

#### **A Practical Visionary**

The son of Italian immigrants, 88-yearold Robert Mondavi is credited with establishing the Napa Valley as an international wine center and leader in an industry long dominated by French wine makers.

"It's about common sense," Mondavi said, "about using research and knowledge intelligently."

A Stanford graduate, he put his brand of common sense to work in

Ninety percent of what I know about wine, I got it from UC Davis.

– Robert Mondavi

establishing one of the most respected wine companies in the world. Today, the family-run Robert Mondavi company produces 16 labels and over 100 individual wines from the Napa Valley and other top regions in California, Italy and Chile.

Like academic researchers, Mondavi has a deep fascination in the complex process of wine making. He also is a practical man, one with respect for both education and the marketplace.

In his autobiography, Mondavi refers to his business as a "test tube" winery and talks about the value of innovation and research. He's always inquisitive, always probing, always trying to figure out answers to challenging questions.

Since the 1930s, Mondavi has worked in the wine business, learning better and better ways to grow the grape. Some of the ideas he explored were the potential of California as wine country and the role of UC Davis as research partner. Thousands of miles away from wine-loving France, Mondavi found that the quality of UC Davis' research went far beyond what he saw in Europe.

Robert Mondavi's son, Timothy ('74, Fermentation Science), oversees all wine making and viticulture for the company. Several generations of Robert Mondavi employees have also been educated at UC Davis.

As Mondavi tells it, he was fortunate to have UC Davis at his side. "Ninety percent of what I know about wine I got from UC Davis. Davis did a lot for me, and I realize that their facilities were antiquated and needed to be brought up to a new standard. I knew we could learn a lot more in the years to come."

Mondavi knows that education is greater than just wine and food. "Wine and food speak not only to the palate, but to the mind and the deeper domain of the heart." he said.

At the new institute, researchers will build on a rich educational legacy.

#### **Positioning for Tomorrow**

Chemical engineering professor Robert Powell is chairing the committee planning the organizational structure of the Robert Mondavi Institute. Such preparation is being developed in conjunction with UC Davis' current long-range development planning process.

"The challenge for the campus is to address the significant issues the wine and food industry will be facing tomorrow," Powell said.

James Wolpert, Department of Viticulture and Enology chair, explains



Margrit and Robert Mondavi

that the university teaches the science of wine making but that access to a winery allows students to develop wine making as an art. Classroom plans include isolated sensory booths for wine tasting, he said. "Wine tasting must be done in private to avoid the power of suggestion from others tasting the same wines simultaneously."

Linda Bisson, professor and the Maynard A. Amerine Endowed Chair in Viticulture and Enology, agrees that the new facilities will boost wine research at UC Davis.

"Limited resources and antiquated facilities have forced us to rest on our laurels and have prevented us from providing the kind of educational experience our students desire and the grape and wine industries need. The Mondavi gift is an opportunity to revo-

lutionize the way we deliver courses and develop even more dynamic and collaborative research initiatives. Since I teach the wine production course, I will benefit the most from the new winery," she said.

This isn't just any winery, Bisson noted. "We are building the winery of the future and elevating California to a brand new level."

UC Davis has steadily built a world-class viticulture and enology program. Today, wineries across America boast UC Davis alumni, and wine companies from Europe and South America send their most promising students to study here.

"They gave to us," Mondavi said of the many UC Davis viticulture graduates who have worked at his company, "and now we give to them."

#### **Department Highlights**

The Robert Mondavi Institute will be the largest and most prestigious wine and food science academic program in the world. Housing the departments in the same building will provide new opportunities for synergies in many areas, including beverage science and technology and the development of safe, healthy food.

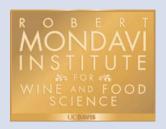
The Department of Food Science and Technology is one of the two largest programs of its kind in the nation. It offers the only food science doctorate program in California.

In recent years, faculty and department researchers have advanced the knowledge frontier in brewing science, lipids and antioxidants, imaging techniques, sensory science, yeast collection, edible packaging and food safety. Students also learn how to design new foods, identify problems in existing products and investigate the fundamental chemistry, physics and the biology of foods as complex biosystems.

Winemaking research began at UC Davis in the 1930s. By the late 1950s, the Department of Viticulture and Enology discovered how to manage the bacteria that cause wine spoilage, and all the prior standards of wine quality were debunked.

Researchers have developed more than two dozen varieties of table grapes and wine grapes that adapt to California's many microclimates. They have established systems for detecting and removing viruses from grapevines and methods of tracing the origins of some of the world's leading wine grapes.

At the new Robert Mondavi Institute for Wine and Food Science, researchers will build on a rich educational legacy.



### Eat, Learn and Be Merry: COPIA

COPIA is the American Center for Wine, Food & the Arts, a dream-come-true for Robert and Margrit Mondavi. Walking about COPIA's grounds in the town of Napa, a visitor may spy fresh organic gardens, out-door tai chi exercise classes, gourmet picnics or scholarly discourses on deconstructing desserts. COPIA promises a one-of-a-kind smorgasbord of experiences designed to appeal to everyone from shovel-wielding amateur gardeners to skillet-wielding professional chefs.

In 1988, vintner Robert Mondavi first hatched the idea for a cultural center designed to educate, promote and celebrate American achievements in the culinary, winemaking and visual arts. The idea attracted others, including key institutions involved in wine and food excellence. Soon, the University of California, Davis, the Cornell University School of Restaurant and Hotel Administration, and The American Institute of Wine & Food (AIWF) were lending their visions and resources as partners.

In November 2001, COPIA opened in a new 80,000-square-foot building on 12 acres adjacent to the Napa River.

"Both COPIA and the Robert Mondavi Institute for Wine and Food Science heighten the academic and cultural profiles of their respective communities and Northern California to an international level," said Neal Van Alfen, dean of the College of Agricultural and Environmental Sciences. "Both offer an integration of wine, food and the arts, promoting the quality of life and teaching visitors and students of all ages. Our college is excited to play a role in the development of COPIA, a place that will reveal the relationships between food, wine and the arts in interesting and fascinating ways."

Mondavi describes COPIA as very Californian and very American. COPIA, like this country, is a melting pot of food, wine and the arts from influences worldwide. It is named for the Roman goddess of abundance.

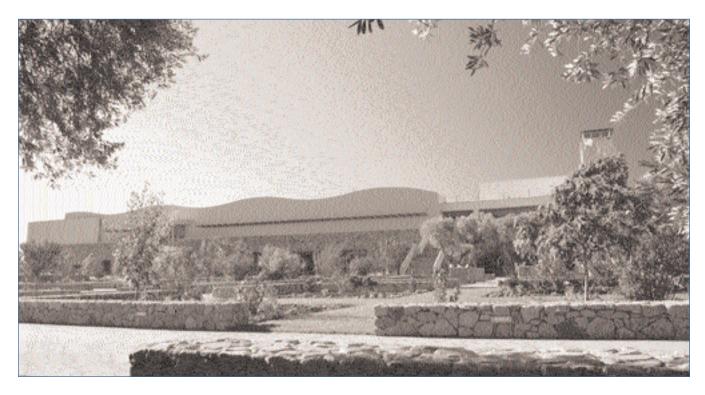
Architects designed COPIA to reflect the industrial and agricultural architecture of the Napa Valley, inside and outside. The architecture symbolizes the historic connection between the agricultural and viticultural products that COPIA celebrates.

COPIA is mindful of the charge of elitism that sometimes governs the food and wine worlds. To counter this, COPIA promises that the programs will pay as much attention to scarcity as to abundance.

For example, they plan to host a symposium on the world food supply and bring together humanists and artists and scientists and philosophers to talk about these issues, including basic agriculture for urban school children, gardening demonstrations, wine tastings, cooking lessons by celebrity chefs, classical- and pop-music concerts, dance recitals, film series, modern-art installations and think-tank seminars on issues such as food irradiation. And, tai chi in the gardens.

One of COPIA's biggest draws is a restaurant called Julia's Kitchen, named for renowned chef Julia Child. She'll be cooking her gourmet vittles there—but keep in mind that her favorite food is a simple baked potato.

The American Center for Wine, Food & the Arts is located at 500 First St. in Napa; (707) 259-1600; www.Copia.org.



## **New Leadership in Three Departments**



Professor **Bruce R. Hartsough** was named chair of the Department of Biological and Agricultural Engineering in September 2001.

"I am honored to be selected by my colleagues and Dean Van Alfen for this position," Hartsough said. "The future in our field is bright with possibilities. I look forward to leading the department and ensuring the success of our valued faculty and researchers."

Hartsough received his B.S. and M.S. degrees at UC Davis and his Ph.D. degree at Auburn University. He joined the UC Davis faculty in 1980 and was promoted to full professor in 1995

Hartsough's research has focused on harvesting to improve forest health and reduce fuel loadings, forest biomass for energy, minimum-impact harvesting methods, harvesting short-rotation plantations, mechanics and dynamics of forestry equipment, and modeling and systems analysis in forest operations.

With the rise of biotechnology and information technology, Hartsough said, "We're experiencing a shift in the field as we begin to apply more engineering solutions to biological systems. Precision agriculture is a reflection of this drive."

Hartsough plans to encourage the type of collaboration between engineers and agricultural researchers that results in new and better ways to manage resources.

An avid cyclist, Hartsough has finished the 200-mile Davis Double Century Finisher 18 times. He has coached youth soccer in Davis for more than a decade



Professor **Andrew Sih** was named chair of the Department of Environmental Science and Policy in July 2001. He came to UC Davis from the University of Kentucky.

"I came to UC Davis because it has the best school in the world in environmental biology and ecology," Sih said. "I'm proud to lead this department and am excited to be working with outstanding faculty to advance their research and teaching goals."

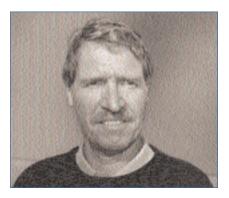
"Increasingly, the public dialogue on environmental issues is confronting the hard science questions involved. Scientists studying these issues need to become part of the policy-making process."

Sih's goals as chair include shaping the faculty profile. "Our major challenge in the years ahead will be to bring in faculty with policy backgrounds," he said.

Sih's own area of research is ecology, focusing on evolution of feeding, mating and antipredator behavior, and of life history strategies, as well as the effects on population/community patterns in streams.

"I study the evolution of behaviors that underlie population or community ecology patterns," Sih said. "Much of my work has focused on predatorprey interactions in aquatic systems. Recent work has included collaborative studies on invasive species and on behavioral ecotoxicology."

Sih is writing a book on how basic ecological concepts help to solve applied problems. He attended State University of New York at Stony Brook for his undergraduate work and UC Santa Barbara for graduate school.



Professor **Chris van Kessel** was named chair of the Department of Agronomy and Range Science in January 2002. "I am excited about the opportunity to lead this department," he said, "and am grateful for the enthusiasm and support of both the faculty and Dean Van Alfen in choosing me for this honor."

Van Kessel, an agronomist, arrived at UC Davis in 1996. A native of the Netherlands, he previously worked at the University of Saskatchewan in Saskatoon, Canada, the International Atomic Energy Agency in Vienna, Austria, and the University of Hawaii. He specializes in soil fertility, nutrient cycling, cropping systems and land-scape scale agronomy.

One significant area of interest is the integration of agricultural activities with environmental issues. "The central theme of much of my research is understanding the basic concepts and unifying principles behind agroecosystems," he said. "How do they function and how can they produce food efficiently in a sustainable manner?"

Van Kessel noted the department is in a perfect position to explore such subjects, and that in California a positive relationship between the environment and agriculture is critical. "Our department spans the continuum from basic research to applied science and Cooperative Extension activities. Our research makes a difference on the farm by introducing new knowledge that better integrates agriculture and the environment."

Van Kessel is an associate editor of the Agronomy Journal and of the Soil Science Society of America Journal.



## Expanded Communication Efforts

The College Advancement Team (CAT) operates in the CA&ES Dean's Office to provide effective communications, strategic relationship building and broad-based fundraising efforts for the college. The team is comprised of the Communications Unit, Development Unit and Student Services and Outreach Unit (See sidebar).

The Communications Unit has

expanded efforts during the past year as the result of recommendations made by the Dean's **Advisory Council** and feedback from external constituents. Clifton Parker joined the Dean's Office as a senior writer. He serves as a communications specialist for the college; his duties are in alignment with the mission of the college, which reads in part: "To advance, integrate, evaluate, and

communicate knowledge of the sciences and technologies of natural resource utilization and conservation,



Rhoda McKnight Director of Communications (530) 752-9328 rjmcknight@ ucdavis.edu

agriculture, food, nutrition, human development, and related environmental, health, safety and policy concerns."

Parker is responsible for editing *CA&ES Currents*, the college's faculty and staff newsletter, writing articles for *CA&ES Outlook*, the college's alumni magazine, developing and distributing articles and news stories to internal and external news sources, producing text for the college Web site and developing special writing projects. He works collaboratively with UC Davis' Public Communications to expand the presence of CA&ES to internal and external audiences.

Parker has built distribution lists of agricultural, environmental and human science media and associations/organizations. These groups feature prominent constituencies of

the college. He meets monthly with department chairs to develop story ideas on scientific discoveries and research advances and assists faculty members in contacting News Service with story ideas and items for *UC Davis Magazine* and *Dateline*.

Faculty members often like to share their knowledge on a broad range of public issues in the form of opinion articles. Newspapers and magazines routine-

ly seek short, well-argued, highly readable op-eds written by individuals with academic credentials. Parker is available to help faculty members polish and publish those op-eds.

Parker is an integral member of the Communications Unit. His contributions are vital to the continued growth and success of the college. If you have suggestions, ideas or comments for Parker, contact him at (530) 752-2120 or cparker@ucdavis.edu.

# College Advancement Team

#### **Mission:**

To advance the teaching, research, extension and public service efforts of the College of Agricultural and Environmental Sciences through communications, relations and development activities.

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Deborah Fredrickson Administrative Assistant Sharon Lynch Assistant Director for Relations Nicole Smith Student Assistant



Clifton Parker (left) meets regularly with Lovell "Tu" Jarvis, associate dean, Division of Human Sciences, to discuss strategies for expanded news coverage.



## A key ingredient...

... in the recipe for the success of our college is our staff. It is understood that they work with our faculty to carry on research, teaching and outreach responsibilities. It is not so well understood that they also work with our students.

The Department of Nematology has always depended on staff research associates to help its graduate students conduct dissertation or thesis research.

Editor's note: My computer's spell checker is questioning the word "nematology," but I know it's the study of round, non-segmented parasitic worms.

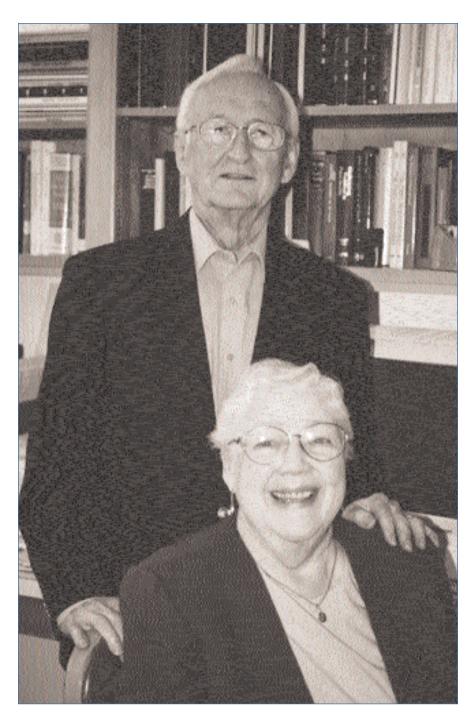
For 32 years, staff research associate Norman Jones helped graduate students in the Department of Nematology. Norman and his wife Lois have fond memories of the department and particularly cherish the friendships and relationships they had with students. They understand the rigorous requirements placed on graduate students, one of which is figuring out a way to pay for their educations.

Norman and Lois understand that the department depends on outside financial support to attract excellent students. Not only do they understand, they have a plan to help.

Norman and Lois Jones gave \$10,000 to the department to establish the Nematology Graduate Fellowship Endowment for unrestricted graduate student support. They are challenging other donors to contribute as well.

Norman and Lois pledged another \$10,000 donation to match new gifts on a "one-to-four" basis once the endowment reaches \$50,000. The challenge is in effect for three years. Upon its successful conclusion, the endowment will have a value of \$100,000!

That's not all. Norman and Lois contributed another \$1,500 to be used



for unrestricted graduate student support, with the understanding that the gift would be matched with CA&ES Dean's Office funds. So, Edward Caswell-Chen, chair of the Department of Nematology, immediately has \$3,000 to support graduate students. There is no need to wait for endowment payout to materialize.

Our thanks to Norman and Lois Jones, retired staff, who now are key ingredients in another recipe—the recipe of charitable giving in support of our graduate students. Please consider chipping in to make the Jones' challenge a great success.



Rick Swantz Director of Development (530) 752-7961 raswantz@ ucdavis.edu



# Enhancing the Classroom: The Internship Experience

Academic excellence is a longstanding tradition within the College of Agricultural and Environmental Sciences (CA&ES) at UC Davis. The overall grade point average, test scores and extracurricular activity involvement of incoming freshman applicants have increased each year. Students entering the college in fall 2001 had an average academic index score second only to the College of Engineering on the UC Davis campus.

But academics is only one component of a well-rounded and comprehensive higher education experience. Many students reinforce their undergraduate and graduate classroom learning through internships.

Internships are work-learn experiences in a professional environment outside of the classroom where students can explore career areas, gain practical skills, apply theory and make career contacts. An internship is a learning experience that may clarify and enhance a student's academic or career goals. It is guided, supervised and evaluated by a faculty member and an on-site professional.

Annually, the UC Davis Internship and Career Center (ICC) provides 5,500 undergraduate and graduate students with on- and off-campus internships. The agricultural and environmental sciences provide a vast array of meaningful learning opportunities.

Agricultural internships are found at farms, nurseries, food and produce companies, seed companies, wineries, agricultural industry trade groups and governmental agencies.

Agricultural interns are involved in many phases of agriculture, including research, production, processing, mar-



Career fairs provide students direct communication opportunities with prospective employers. The Internship and Career Center matches students and opportunities.

keting and distribution.

Environmental interns are involved in research and consulting, meteorology, air and water resource monitoring and management, health and safety risk assessment, industrial hygiene, toxicology, wildlife biology, forestry, environmental education and remote sensing.

ICC also coordinates Peace Corps recruitment, the UC Davis Washington Center internship program and the U.S. Forest Service Initiative.

An agriculture student working at Hines Nursery wrote: "Rotating through the various departments and seeing and experiencing the extent of what is required to operate a wholesale nursery reassures me that I have chosen the appropriate career for myself."

An environmental toxicology student serving with the California Department of Pesticide Regulation said: "I feel that my scientific writing skills are more refined by participating in this internship. This experience definitely will help me build a career after graduation."

Alumni and friends of the college provide hundreds of internship experiences in the agricultural and environmental sciences. ICC welcomes new internship and career opportunities and can assist you in recruiting outstanding talent.

To bring an Aggie to your organization, please contact the Internship and Career Center: Nancy Tibbitts (agricultural, food, animal and wine industries) (530) 752-2868; nrtibbitts@ucdavis.edu or Marg Lee (environmental and resource sciences) (530) 752-2671: molee@ucdavis.edu.

Visit the ICC Web site at http://icc.ucdavis.edu. Check out the internship and vacancy listings, career help by majors, resume and interview tips, and labor market and salary surveys. Click on the "agricultural and environmental sciences" link and explore targeted Web sites for food, agricultural and wine industries; environmental organizations and agencies; as well as animal science and industry groups.

If you have a student you would like to refer to UC Davis or have questions about our expanded recruitment and outreach activities, please contact me.



Richard Engel Director of Student Services and Outreach (530) 754-6249 rrengel@ucdavis.edu

## Picnic Day: April 20, 2002 "Open Mind - Open Door"



What does Picnic Day have in store this year? Educational, informational, experiential, fun-filled, exciting and eclectic activities; an imaginative, colorful parade with dazzling bands and floats; food, food and more food; and a hospitality booth staffed by Dean Neal Van Alfen and members of the Dean's Office of the College of Agricultural and Environmental Sciences.

Stop by the college's hospitality canopy at the corner of North Quad and West Quad, just west of Freeborn Hall. Pick up information on Picnic Day departmental displays and open house activities.

Our staff and students are there to say hello and answer questions you may have about the college, its programs or majors. It's the perfect opportunity to reconnect with faculty, alumni and friends of the college.

Don't forget to bring along the "Jacket Basket" Entry Form (see next column) for a chance to win a FREE UC Davis Aggie sports jacket. You do not have to be present at the time of the drawing to win.

## It's as simple as 1-2-3. Good luck!

- **1.** Complete this entry form.
- 2. Visit the CA&ES hospitality canopy on Picnic Day, Saturday, April 20, 2002.

## College of Agricultural and Environmental Sciences 2002 Picnic Day

## **Jacket Basket Entry Form**

Yes! I'd like to win the FREE UC Davis Aggie sports jacket. I understand that I do not have to be present to win. In fact, the only thing that I have to do is drop this entry form into the "Jacket Basket" at the CA&ES canopy, corner of North Quad and West Quad. Wish me luck!

Name
Address
City/State/Zip
Phone W ( ) H( )
E-mail
Circle one: Alumni • Student • Staff • Faculty • Friend of the college

## **2001 Award of Distinction Recipients**

Ten individuals were chosen as 2001 Award of Distinction recipients by the College of Agricultural and Environmental Sciences. The designation is the highest award presented by the college to individuals whose contributions and achievements enrich the image and reputation of the college and enhance its ability to provide public service. Dean Neal Van Alfen presented the awards to recipients at the 2001 College Celebration.

Melvin D. Androus of Yuba City was manager of the California Rice Research Board from its inception in 1969 until 1997, served as chair of the California Commodity Commission for 13 years and represented California on the National Council for Agriculture, Research, Extension and Teaching (CARET) executive committee. He serves on the CA&ES Dean's Advisory Council.

Luigi Chiarrappa (Ph.D., '58, Plant Pathology) of Davis began a distinctive career in international agriculture as a plant pathologist and later served in Rome as senior administrator for the Foreign Agricultural Organization of the United Nations. As FAO's chief of plant protection, he established programs in developing countries throughout the world.

John "Jack" C. Corey (M.S., '62, Water Science and Irrigation) of Aiken, South Carolina, manages the lead laboratory for the DOE's Subsurface Contamination Focus Area, Savannah River Technology Center. Considered the U.S. authority on the remediation of subsurface contaminants, he led efforts to form a virtual laboratory organization of 10 DOE national laboratories.

Dolph Gotelli of Sacramento joined UC Davis' Department of Environmental Design in 1970. Gotelli established The Design Museum at UC Davis (formerly The Design Gallery) and its support group, Design Alliance. He is recognized worldwide for contributions to exhibition design, display, curatorial studies and design education.



(Top row, left to right) Diane Phaff, Luigi Chiarrappa, Robert Washino, John "Jack" Corey, George Rendell and Jeanette Van Emon. (Bottom row, left to right) Mel Androus, Craig McNamara, Dolph Gotelli and Jim Lyons

James M. Lyons (M.S., '58, Vegetable Crops; Ph.D., '62, Plant Physiology) of Davis is professor emeritus, Department of Vegetable Crops. He served as vegetable crop department chair at UC Riverside and UC Davis and as an associate dean in the college. He was director of the Integrated Pest Management Program and a founding director of the Center for Pest Management.

**Craig McNamara** (B.S., '76, Plant and Soil Science) of Winters is owner of Sierra Orchards. He is a California Agricultural Leadership Program graduate, American Leadership Forum senior fellow and CA&ES Dean's Advisory Council member. He helped structure a biologically integrated orchard system that became the model for UC/SAREP.

Herman J. Phaff (deceased) joined the UC Davis Department of Food Science and Technology faculty in 1954. He is recognized as an international authority on the biology of yeasts. In 1996, the Herman J. Phaff Culture Collection: Yeasts and Yeast-like Microorganisms, was dedicated as an official biological collection of the University of California.

George Rendell (B.S., '55, Animal Science) of Long Beach is a retired University of California Cooperative Extension 4-H farm advisor and administrator. In 1979, he initiated the concept for the UC Master Gardener Program, now a statewide and national model. He served as Los Angeles County UC Cooperative Extension director, assisting in expanding educational efforts.

Jeanette Van Emon (Ph.D., '85, Agricultural and Environmental Chemistry) of Las Vegas is a research chemist with the U.S. Environmental Protection Agency. An expert in immunochemistry and its application to environmental protection, she pioneered development of methods for environmental monitoring and human exposure assessment studies.

**Robert Washino** (M.S., '56; Ph.D., '67, Entomology) of Davis is professor emeritus, UC Davis Department of Entomology. He served as entomology department chair, associate dean of academic affairs and director of the Center for Pest Management. He served on the Board of Trustees of the Sacramento-Yolo Mosquito Abatement District for 28 years.

## Stamping Sept. 11 into History

Assistant professor Kathi Sylva, Department of Environmental Design, figures a design is worth a thousand words–especially on a stamp. But how do you fit a powerful message on a tiny piece of glue-backed paper? You might be surprised.

Last fall, Sylva's Design 152A class— "Visual Communication: Graphic Design Production"—embarked on an ambitious project—to commemorate America in the wake of the Sept. 11 tragedy. Their medium—full color postage stamps. Their goal—make art to better understand this terrible event.

Final class projects were due November 13–barely two months after the deadly attack on the World Trade Center and Pentagon. With emotions in flux across the country, Sylva's class was tackling a tough issue at the hardest time. With no luxury for historical hindsight, the challenge was trying to understand Sept. 11 through the visual medium and the use of the stamp form as expression. A strong desire existed to do justice to those who died and risked their lives.

"We talked about what was important in this experience and how people came together to help one another," Sylva said. Specifications were that the stamp must include "September 11" or "September 11, 2001" and the price of postage, "USA 34."

In designing the postal 20-stamp page–known as a "quilt"–students had options. They could include text, present just 20 stamps or do one or several designs.

"We stressed legibility, for obvious reasons, and a positive approach to the issue," said Sylva.

Plus creativity. If a student chose the oft-used flag symbol, why not take a new perspective on it? Try a variation on the theme, in other words. The Design 152A class seemed the perfect place to explore Sept.11 in a different way.

The class syllabus talks about understanding "symbolism" and "representation" as essential components to the development of effective logos and "identity systems." Stamps are a suitable identity system for the millions of Americans who use postage—just about all of us. And, stamp collecting is a big business. Sylva focused her students on how art can make sense of real world events.

"Our objective is to educate our students within a socially and environmentally responsible context, encouraging them to become creative designers who understand the social context of their day and age," Sylva said.

Senior design major **Jacqueline Kang** said, "Instead of making a political issue about the stamp, I wanted to make it a tribute to the lives lost on that day—without making a contentious statement—to simply remember that it happened and was a tragedy."

Senior design student **Cathy Forbes** said, "Once students enter the 'real' world as designers, they are expected to produce designs–print, television spots, direct mail–that reflect current events. Kudos to Kathi Sylva for giving us such 'real time' work to prepare for careers in visual communications."

Prior to Sylva's class, Forbes observed, the only stamp published relating to the events of Sept. 11 was one waving flag with the words "United We Stand." Shortly thereafter, a commemorative stamp featuring Lady Liberty was released—much like Forbes' rendition.

Sylva is considering submitting some of the designs to the United States Postal Service.



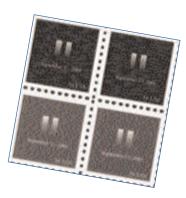
**Jacqueline Kang**Design Student



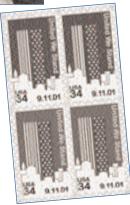
**Vernaliza Montoya** Design Student



**Lauren Stewart**Design Student











Julia Quan and Shellie Kendall (above) provide friendly academic advice to undergraduates in the Department of Environmental Toxicology. As members of the Peer Adviser Program, they are familiar with major, college and university requirements, as well as course information. They assist students with academic planning and the depart-

ment at various events including Picnic Day and Fall Welcome.

Quan and Kendall are environmental toxicology students and graduating seniors. They encourage and facilitate interest in the major and in the department, a critical component for course availability and career options. Their work with faculty and staff helps maintain and grow the department.

Peer advisers receive training from Advising Services and from the department. Because they are students themselves, they offer other students firsthand, up-to-date information on college life, campus resources and classes.

"Concepts are brought to life and applied to a diversity of real-world issues in environmental toxicology," said Kendall. "I wanted to become a peer adviser to help students explore opportunities in the field. A rewarding college experience requires support and direction. As a peer adviser, I'm in a wonderful position to offer both."

**Shawn Ball**, Department of Environmental Design, is interested in furniture–for comfort and for the aesthetic quality. One of his designs–cubes of sycamore and teak veneers with leather cushions–premiered at San Francisco's LIMN 20th anniversary celebration last fall. It was showcased as a "LIMN exclusive."

Ball was interning at the LIMN Sacramento store while taking a furniture class at Davis. His supervisor invited employees and associates in the architectural community to design a piece for the show. Ball's employer was impressed with his combined seating and storage design and selected it to be manufactured.

"My design was inspired by my cramped living quarters," Ball said.
"It's a great opportunity at my age to design a piece that is put into production. Usually student work becomes a prototype, and it stays a prototype. I'm thrilled."



Professor Caroline Bledsoe, Department of Land, Air and Water Resources, Professor Michael Barbour, Department of Environmental Horticulture, and graduate student **Rik Smith**, Ecology Graduate Group, help students learn how to identify and measure campus trees.

In small groups of 10-20, over 100 undergraduate students in the "Trees and Forests" class conducted a "treasure hunt" for trees. They were given a map of a small area of campus on which trees and their inventory numbers are marked. Students learn to read the map, orient

themselves, find a specified tree and measure its height, diameter and canopy spread. In a subsequent session, students work with data, learning about tree shapes and growth.

"This team-teaching approach has been very successful," said Bledsoe.

**Steve Arounsack**'s documentary, The Rhythm of Elder Treasures, premiered on a local PBS station in January. Arounsack is a member of the Ecology Graduate Group, Department of Land, Air and Water Resources.

The documentary features the sounds and perspectives of Southeast Asian elder musicians in California's Central Valley. Arounsack's glimpse into California's unique cultural enclaves highlights important historical events that textured the lives of many Lao, Hmong and Cambodian musicians. Also explored is the current struggle of many of these elder musicians to pass on their knowledge and share their passion of traditional music with the next generation.

The documentary was produced entirely by the staff and children of Modesto's BRIDGE Community Center.



Assistant professor Glen Young and fellowship receipient Krista Venecia

**Krista Venecia** is the UC Davis 2001-2004 award recipient of the Robert D. Watkins Minority Graduate Research Fellowship presented by the American Society for Microbiology (ASM). She was awarded a \$15,000 annual stipend for three years to conduct research and

received travel funds in order to present research results at ASM general meetings where she will participate in poster and oral sessions.

Venecia's research is titled "Understanding Yersinia Enterocolitica Virulence Because It Is an Aerious Emerging Food-borne Pathogen." Assistant professor Glenn Young, Department of Food Science and Technology, is her mentor.

The fellowship seeks to increase the number of under represented minorities earning Ph.D. degrees in the microbiological sciences.

Venecia and Young are studying a bacterium called Yersinia enterocolitica, a pathogen that causes over 96,000 cases of food-borne illness each year in the United States. It is closely related to other food-borne pathogens such as Salmonella, Shigella and E.coli.

(Continued on page 18)

## **Partners in Education**

Thanks to Lorenzo McOmie, graduate students in agriculture now have options at two of California's most venerable teaching and research institutions. It's called the McOmie Graduate Education Program.

The McOmie program kicked off September 2001 as a way for graduate students to combine advanced agricultural studies at UC Davis and California Polytechnic State University, San Luis Obispo.

It works like this: students begin their master's studies at Cal Poly and finish up with a doctorate at UC Davis. Along the way they work with faculty from both universities and make use of the different resources and facilities that each college offers.

The McOmie Graduate Education Program is funded by a charitable remainder trust now valued at \$20 million. The trust was established in 1975 by Lorenzo and Judith McOmie as a \$5 million fund at UC Davis and Cal Poly to support agricultural research programs at both universities, especially in the areas of animal husbandry and field crops. UC Davis' \$10 million share is the second largest gift ever to the College of Agricultural and Environmental Sciences.

Lorenzo McOmie was raised on farms from Idaho to California. He graduated from Stanford University in 1930 and began a career as a farmer and rancher, owning numerous properties throughout California's Central Valley. He died in 2001, preceded by Judith in 1984.

The McOmies, both acclaimed for their amiable natures, would smile to know that their new program represents a bridge of cooperation between long-time agricultural rivals UC Davis and Cal Poly. This new spirit of collaboration

serves students who may have various reasons for attending each institution. The McOmie program demonstrates the depth of each college's commitment to flexibility, innovation and opportunity in the teaching and research of its students.

In the long run, the McOmie Graduate Education Program will help strengthen the research connection between the UC and CSU systems and will provide highly qualified students for doctoral studies at UC Davis. To date, a number of students have informally pursued the path now established by the McOmie program.

"We're excited about the McOmie Graduate Education Program and the spirit of cooperation it demonstrates between two excellent institutions," said Neal Van Alfen, CA&ES dean. "This will prove valuable as California continues its worldwide leadership in the agricultural industry."

The McOmie program expands the original vision behind the McOmie trust fund to include a broad array of graduate programs administered by CA&ES. Under the plan, each institution contributed \$35,000 for the first year.

"This program allows our faculty and students access to some advanced technologies and programs at Davis that we cannot provide at Cal Poly and helps develop relationships among scientists at both institutions that will benefit California," said David Wehner, interim dean in the College of Agriculture at Cal Poly.

Indeed, the McOmie program benefits students—and tax-payers—who want to see California's higher education institutions cooperate and work together.

#### **Students** (Continued from page 17)

Venecia's project is focused on understanding how food-borne pathogens cause disease. Results from her research will provide important information that can be applied to the development of antibiotics and vaccines to limit the effects of food-borne illness. The Center for Disease Control estimates that more than 7 million cases of food-borne illness occur annually in the United States.

Ross MacDonald, director of the Science and Society Program, explored last year's "anthrax crisis" in his fall 2001 Science and Society class—"Critical Inquiry into Contemporary Issues." Along with lecturer Ralph Brave, MacDonald facilitated classroom discussions with a number of bioterrorism experts.

About 200 students were in MacDonald's class. For the final, students imagined themselves writing a newspaper article on anthrax. They were to consider all the pressures on them as they attempted to communicate the various issues involved. Students read a wide-range of materials and searched the Internet for background.

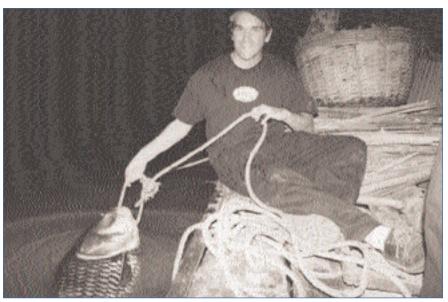
MacDonald noted, "One of the goals for this class is to help students understand how issues are framed by a person's or institution's values and stakes and where conflicts arise or consensus might emerge when different standpoints come into conversation with each other. By bringing together state and local decision makers and opinion leaders on the anthrax issue from government, the media and the sciences, the students were able to experience this conversation firsthand."

First-year student **Rebecca Meredith** commented: "The anthrax case study was interesting to everyone, myself included, because it allowed us to look at the issue in depth from multiple perspectives."



Managerial economics major **Jennifer Schuler** is interning with the California Farm Bureau Federation in the communications news divi-

sion. "Interning at the California Farm Bureau is a good way for me to make the connections I'll need once I graduate," she said.



Graduate Student **Zeb Hogan** is pictured with his 120-pound Mekong giant barb in Cambodia. The species grows to over 650 pounds. Hogan, Professor Peter Moyle, Department of Wildlife, Fish and

Conservation Biology, and Professor Bernie May, Department of Animal Science, worked on the population structure and conservation biology of the migratory fish of the Mekong River in Asia.

Schuler works on California Country, the farm bureau's weekly television magazine program. The program features stories from state farms and ranches, targeting them to allied industries, including restaurants and food companies. She also accompanies the film crew on location shootings.



Michelle Andrea Pate is the lucky winner of an Aggie jacket presented by the college to one student and one alumni following Picnic Day 2001.

Pate, a resident of Sacramento, majors in biotechnology. **Claude Wilson** ('77, Food Science) won an Aggie jacket in the alumni category. He and his wife Carol ('79, Home Economics) live in San Ramon.



Marcelo Bertolini, animal science graduate student in the physiology Ph.D. program, received the first-place award in graduate student competition at the 2002 meeting of the International Embryo Transfer Society held in January. Students were judged on the quality of the research project, information presented in a written abstract, an oral presentation and a poster presentation. Forty-seven students from around the world competed for the award.

Bertolini's research focuses on explaining why some calves born from in vitro fertzilization procedures have excessively large birth weights.

#### **Student Enrollment Profile**

A total of 4,931 undergraduate students enrolled in the College of Agricultural and Environmental Sciences in fall 2001. Division of Biological Sciences students earning their degrees through CA&ES are included. One of every four UC Davis freshman and three of every 10 seniors are registered in a CA&ES major.

Overall, UC Davis registered a record 27,292 students at the start of the 2001-2002 school year, due mainly to its highest-ever transfer figures from community colleges.

In CA&ES, males accounted for 34 percent, and females 66 percent, of all undergraduates. Here's an ethnic breakdown of the college's domestic students:

Percentag			
2.6			
0.9			
15.5			
2.2			
3.7			

Group	Percentage
Japanese-American/Japanese	2.0
Korean-American/Korean	2.2
Latino/Other Spanish	2.4
Mexican-American/Mexican/Chicano	7.1
Other Asian	2.5
Other	2.4
Pacific Islander/Other	1.2
Vietnamese	5.4
White/Caucasian	44.7
Unknown	5.1

Undergraduates with first majors in the CA&ES, which includes Division of Biological Sciences students receiving their degrees from CA&ES, are 25 percent of freshman, 17 percent of sophomores, 27 percent of juniors and 31 percent of seniors.

Ninety-six percent are identified California residents; 3 percent are identified non-resident domestic; and 1 percent are identified non-resident foreign.



Members of the UC Davis Goat Show Team (left to right), **Erika Scharfen** with "California Beaujolais," **Maureen** 

**Hyman** with "UCD Dulcinea" and **Elaine Ferrell** with "California Jeni," won second place Best Three Females

at the 2001 California State Fair Percentage Purebred Show.

The show team participates in both Boer and dairy goat shows in California. Each year, show goats usually attend four club-sponsored shows, two county fairs and the California State Fair. During the 2001 show season, the animals and students earned 10 Grand Champion and seven Reserve Grand Champion awards. The show team won First Place in Herdsmanship for the dairy goat show, Second Place in Herdsmanship for the Boer goat show and Best Educational Display at the California State Fair.

The UC Davis Goat Facility program teaches students how to evaluate animals for correct conformation, how to handle, fit and show animals and how to care for them while being hauled and temporarily housed. During fairs, students care for the animals, interact with the public and with meat and dairy goat industry representatives and answer questions about UC Davis' role in animal agriculture.

## **Keeping Aggies in the Family**



The way freshman **Davis Johnson** tells it, UC Davis is a family affair.

"I love UC Davis," he said. "It's a great college and town."

Davis' whole family knows it.
Davis' mother Virginia McBride
Johnson ('77, Psychology) and father
Kent (B.S., '76, Plant Sciences; M.S.,
'78, Plant Protection and Pest
Management) are Aggie alumni. They
met while working student jobs on the
English-style, double-decker Unitrans
bus. They so enjoyed their years on
campus that they passed its name on
to their son. That's right, Davis is
named after UC Davis.

"I have to explain the origin of my name quite a bit," he said, "but I don't mind. I'm just glad they didn't go to Chico or someplace else." Like Humboldt. San Luis Obispo—"SLO." Azusa. Cogswell. You get the idea.

No, this is the way Davis prefers it. And he did consider other colleges besides UC Davis. But with an agricultural family—the Johnsons live in Modesto where Kent runs an agricultural production company and Virginia teaches—UC Davis seemed the perfect fit. He knew it firsthand, having taken pre-college courses at UC Davis while on summer break from high school.

You can go back two generations to Davis' great-grandfather William Johnson for the first Johnson Aggie alumni. He played on the Aggie football team of 1917 and then was drafted into World War I. The next generation skipped UC Davis, but Kent and Virginia renewed the tradition. Davis' older sister **Audrey** is a senior majoring in agricultural systems and the environment. And four of his five uncles have gone through UC Davis.

Kent Johnson waxes about the role UC Davis has played in his life. "I met my wife here and received an education that has prepared me well." The Johnsons left Davis in 1978 with, as Kent tells it, "a job offer in hand and driving an old Pinto."

What difference does a name make? Last September, the Johnsons helped move their son into his new

campus home. A week later Davis told them that one of the first things everyone on his floor did was learn each other's names. "He said, 'Dad, no one had a hard time remembering my name," Kent laughed.

As a first-year, Davis is still deciding on his major. He's interested in agriculture (of course) and political science. One day, he muses, he might just combine the two interests into a legal career. He also loves to write.

Davis is active in the Aggie Ambassadors where he helps promote CA&ES at the high school level. He also is looking to get hitched up to the Special Olympics program in Davis. Back in Modesto, he volunteered as a soccer coach for their Special Olympics program, and it sparked his interest in helping young people with disabilities.

Davis is the kind of student UC Davis is all about. It seems to run in the family.





#### Charles Goldman,

Department of Environmental Science and Policy, carried the Winter Olympic Torch out of Squaw Valley in

January 2002. The torch was used during the Olympic opening ceremonies Feb. 8 to light the eternal flame in Salt Lake City where the games were held.

About 11,000 torchbearers carried the flame across 13,500 miles and 46 states during its nine-week journey. Goldman ran in the name of Tahoe Research Group students, staff and faculty members.

Goldman, a professor of limnology and director of the Tahoe Research Group, has investigated freshwater lakes with an emphasis on biological, chemical and physical interactions between surrounding watersheds and lakes. In 1998, he received the Albert Einstein World Award of Science, bestowed annually to one individual by a council of eminent scientists, which includes 25 Nobel laureates.

Professor emerita **Emmy Werner**, Department of Human and Community Development, received the Arnold-Gesell award from the Ludwig-Maximilians University at a ceremony in Munich, Germany. The honor recognized career achievements related to how children cope with adversity. Werner is donating the \$10,000 award gift to UNICEF and the Children's Hospital in Kabul, Afghanistan.



Carolyn Aldwin, professor of human development and family studies, Department of Human and Community

Development, conducted extensive

media interviews in the wake of the terrorist attacks on September 11.

Some of the people affected by the tragedy-victims, family members, rescue workers-will develop post-traumatic stress disorders, she said. Accessing support services and counseling as soon as possible is helpful. "It's important to spend time with loved ones and reassure children-and turn the TV off when the images warrant it," Aldwin said.

Carl Winter, Cooperative Extension toxicologist specialist and director of the FoodSafe Program, sings about food safety issues on his new CD, "Still Stayin' Alive." The collection of '70s and '80s musical parodies is Winters' third CD on food safety issues. His menu of tunes includes 12 of his greatest hits plus five new songs—two about biotech, one rap song

and one sung in Spanish.

Winter, a popular performer at meetings and conferences throughout the country, believes that his songs help people understand the importance of food safety. Lyrics for the songs on his new CD are available at foodsafe.ucdavis.edu/lyrics.pdf.

Professors Kent Bradford, Department of Vegetable Crops, Christine Bruhn, Department of Food Science and Technology, Barbara Schneeman, Department of Nutrition, and Sharon Shoemaker, program director for the California Institute of Food and Agricultural Research, are among the members of the state's newly formed Food Biotechnology Advisory Committee. The committee is charged with providing advice to the state of California on emerging food biotechnology issues.



Department of Environmental Design, served as a consultant to the United States Postal Service two years ago on a set of Santa stamps released for the 2001 holiday

released for the 200 season. Gotelli explained to the researchers working on the stamps the finer details of chromolithographed, die-cut paper collectibles. "I am impressed by the depth of research the Postal Service does on its stamps," Gotelli said.

Gotelli said.

The Santa stamps,
featuring four images that
represent the rich folklore of Santa Claus,
were issued at a ceremony at the Holiday
Theater at Holiday World,
a theme park in Santa Claus, Ind.
The stamps feature four chromolithograph Santa Claus images (circa
1880s and circa 1915-20).

Two Santa images probably date from the 1880s. They may have been designed in England and printed in Germany. The other two Santa images were printed in Germany and probably date between 1915 and 1920. Santas such as these may have been used to decorate "lebkuchen," a traditional German cookie.

Postal cards featuring the Santa stamps also were produced. Each card features one of the four Santa designs and includes 21 cents postage. To see an image of the Santa

stamps, visit the Collector's Corner in the Postal Store at www.usps.com and click on Stamp Release Schedule. Sheri Zidenberg-Cherr, Cooperative Extension associate specialist, Department of Nutrition, won an Award of Excellence from the National School Public Relations Association for her education curriculum, "Nutrition to Grow On: A Garden Enhanced Nutrition Education Curriculum for Upper Elementary School Children." The course material was displayed at the association's national seminar in Minneapolis, Minnesota.

Professor **Peter Moyle**, Department of Wildlife, Fish and Conservation Biology, and geology professor **Jeffery Mount**, are serving on the National Research Council's panel to evaluate recommendations made by federal agencies to provide water for three species of endangered fish in the Klamath River Basin, Oregon and California. A preliminary report, issued in February, received nationwide attention.



Professor **Caroline Bledsoe**,
Department of
Land, Air and
Water Resources,
was elected a
fellow of the
American

Association for the Advancement of Science. Her research has covered mycorrhizal ecology and belowground biodiversity, nitrogen cycling in forests, and biology of culinary and medicinal herbs.

"My election as an AAAS fellow recognizes the importance and relevance of beneficial mycorrhizal fungi that interact with plant roots in soils. That's been my life's work, and I am so happy to see its importance recognized," Bledsoe said.

AAAS, the world's largest scientific organization, publishes the journal *Science*.

**Thomas Cahill**, professor emeritus of atmospheric sciences and physics, Department of Land, Air and Water Resources, is this year's recipient of the American Lung Association of California's Clean Air Globe Award.

Cahill has conducted research on air pollution and atmospheric physics.

Established in 1976, the Clean Air Globe Award recognizes individuals who have made significant contributions to healthier air in the state.

Professor emeritus **William Garrett**, Department of Animal Science, was named a fellow in the American Society of Animal Science (ASAS). He was recognized for life-long contributions to animal agriculture.

Garrett served as department chair from 1987 to 1990 and was ASAS president in 1983 and 1984. His research interests included ruminant nutrition, net energy system of feed evaluation, animal energetics and body composition.

Professor **Miguel Marino**, Department of Land, Air and Water Resources, received an honorary membership in the American Water Resources
Association (AWRA) "to acknowledge his eminence in water resources science and technology." Marino has extensive experience in groundwater modeling, contamination and management, water resource planning and management, hydrologic systems analysis and irrigation management.

AWRA presented the award in Albuquerque, New Mexico.

Professor **James Wilen**, Department of Agricultural and Resource Economics, has been selected a Distinguished Fellow of the American Agricultural and Economics Association (AAEA). He was honored at AAEA's annual meeting in Chicago for contributions to the agricultural economics profession. The AAEA fellows distinction is the organization's highest award, granted to only 160 individuals since its inception in the 1950s.

Wilen's scholarship focuses on resource economics, environmental economics and microeconomics.

**Thomas Famula**, professor, Department of Animal Science, serves as the genetics consultant to Guide Dogs for the Blind in San Rafael. He evaluates which dogs to breed based on health and behavior. "This is the largest service dog organization in the world," he explained.

Professor **Kate Scow**, Department of Land, Air and Water Resources, was appointed director of the M. Theo Kearney Foundation of Soil Science. Established in 1951, the foundation was created to encourage and support research on issues of public concern in the fields of soils, plant nutrition and water science.

"The Kearney Foundation's 2001-2006 mission is 'Soil Carbon and California's Terrestrial Ecosystems," Scow said. "How carbon flows and where it ends up has enormous global consequences. Soil is an important source and sink of atmospheric carbon, yet there are serious gaps in our knowledge of the processes involved. A major goal of this mission is to strengthen the scientific foundation for understanding and predicting carbon fluxes between soils and the atmosphere, as well as carbon sequestration in soil."

Scow came to UC Davis in 1989. Her research interests include biodegradation of organic pollutants in soil and groundwater; decomposition and carbon fluxes in agro-ecosystems; and use of molecular approaches in microbial ecology. Her lab's discovery in 1997 of a unique bacterium (PM1) that is able to biodegrade the gasoline additive MTBE has led to research on MTBE bioremediation at several sites.

Scow served as chair of the Soil Biology and Biochemistry division of the Soil Science Society of America and was elected fellow in 2001.

Associate professor **Jorge Dubcovsky**, Department of Agronomy and Range Science, was presented the first-ever Excellence in Research Award by the National Association of Wheat Growers Foundation. The award, presented at the Wheat Industry Conference in New Orleans, recognized contributions in the area of marker-assisted selection.

The wheat-breeding program led by Dubcovsky integrates traditional breeding approaches with modern genomic technologies to accelerate wheat improvement. Numerous genes for disease resistance and quality have been transferred to California wheat varieties using molecular markers to increase the efficiency of the selection for these traits.

Dubcovsky is principal investigator for a consortium of 12 wheat programs that recently were awarded \$3.25 million to develop a national initiative on wheat marker-assisted selection.

Professor **Ning Pan**, Division of Textiles and Clothing, was elected president of The Fiber Society, an international professional society comprised of chemists, physicists and engineers with interests in the field of

fiber science. This is the first time in the society's 60-year history that a California member was named president.

Professors Colin Carter and Scott Rozelle, Department of Agricultural and Resource Economics, wrote one of three winning essays in the American Agricultural Economics Association Essay for the 21st Century contest. The essay was to address an emerging food system issue with substantial implications for governmental policy in the 21st century. There were 50 entries. Their essay was titled "Will China Become a Major Force in World Markets?"

Professor **James Wilen** and **Martin Smith** received a runner-up award for their essay "The Marine Environment: Fencing the Last Frontier."

Winning essays were published in Review of Agricultural Economics.

Professor **John Carroll**, Department of Land, Air and Water Resources, was elected president of the Pacific Division of the American Association for the Advancement of Science (AAAS). Carroll, an atmospheric scientist, takes office in June.

Assistant professor **Albert Fischer**, Department of Vegetable Crops, was featured on the front cover of the November issue of *California* 



Assistant professor Alyson Mitchell and consumer food marketing specialist Christine Bruhn (third and fourth from left) of the Department of Food Science and Technology hold the coveted Culinary Combat trophy following the department's third annual Culinary Combat Competition at which teams have two hours to turn mystery ingredients into a unique meal. Dairy food extension specialist John Bruhn (looking on from behind) was the third mem-

ber of the winning team.

The threesome used pumpkin, turkey and banana to prepare their award-winning stuffed pumpkin shell, filled endive leaves and banana/chocolate/pomegranate tartlet creations.

Chevre de Fer, a team of graduate students, including (left to right) Lisa Jacobson, ag and environmental chemistry; Stephanie Smith, ag and environmental chemistry; Bob Ward, food science; and Mike Moyer, viticulture and

enology, was a close second with a tower of tofu with pumpkin remoulade and bananas foster.

Required ingredients were pumpkins, ground turkey (or tofu as an alternative), pomegranate, bananas, baking chocolate, nutmeg, brandy, mustard powder, endive, mascarpone, rosemary, chicken broth, kale and sun-dried tomatoes. Staples such as flour, sugar, salt and eggs also were available.

Farmer wearing his UC Davis weed science cap.

Quoted in an article titled "Herbicide Hammers," Fischer describes how promising new chemical products are helping rice producers improve weed control measures.

Fischer's research has focused on rice, weed ecophysiology, rice-weed interference, mechanisms of herbicide resistance in weeds, herbicides and alternative weed control methods, which includes a germplasm approach to weed suppression.

Professor emeritus **Bruce Eldridge**, Department of Entomology and former director of the UC Mosquito Research Program, was elected a fellow of the Entomological Society of America (ESA). ESA, the largest organization in the world serving entomologists and people in related disciplines, has more than 7,400 members.

Andrew Sih, chair of the Department of Environmental Science and Policy, recently was identified as a 'highly cited researcher' in the environmental sciences by ISI Current Contents. For this designation, ISI Current Contents tracks publications in over 8,000 journals and 2,000 books and identifies researchers who are in the top one-half of 1 percent of all published researchers in their fields.

Sih's research examines the ecology and evolution of predator and prey behaviors. His published works include both theoretical and experimental studies, as well as several important conceptual reviews. Most of his experimental work involves freshwater organisms.

His new research focuses on key behaviors underlying the impacts of invasive species in fresh water and on how very low concentrations of chemical pollutants can have surprisingly large ecological effects by altering predator-prey behaviors.

Professor **Bernie May**, Department of Animal Science, was selected by the Consortium for Women and Research Advisory Board to receive its 2000-2001 Outstanding Mentor Award.

Nominated by his students and colleagues, May was recognized for promoting research by women at UC Davis and for having a positive impact and influence on their research and teaching careers.

May's research focuses primarily on the population genetics of threatened and endangered species, such as sturgeon, suckers, tui chub, trout, salmon, blue whales, marmots, goshawks, desert plants and Asian catfish. He also works on the selective improvement of white sturgeon, tilapia and rainbow trout.

Interdisciplinary professor **Alexandra Navrotsky**, director of the crossdisciplinary nanoscience initiative at the University of California, Davis, has been awarded the prestigious Benjamin Franklin Medal in Earth Sciences for her work on the thermochemistry of minerals, high pressure materials and nanomaterials. Described as "the American Nobels," this year's Franklin medals will be presented April 25 in a ceremony at the Benjamin Franklin National Memorial in Philadelphia.

Navrotsky's studies of how materials form different structures under intense heat and pressure have shown how minerals behave deep within the earth's core and on other planets. Her laboratory is particularly interested in nanomaterials, made up of very small particles just a few atoms across. Because of their small size, nanomaterials have unusual chemical, electrical and other properties and interact readily with living things.

Navrotsky holds the Edward Roessler Chair in Mathematical and Physical Sciences and leads the UC Davis initiative on Nanophases in the Environment, Agriculture and Technology (NEAT), which supports interdisciplinary research, education and training related to nanoscience and nanomaterials. She holds a partial appointment in the college's Department of Land, Air and Water Resources.

"This is a very prestigious honor and, to the best of my knowledge, Dr. Navrotsky is the first person in LAWR -or in the departments merged to create LAWR in 1975—to receive this honor," said Michael Singer, department chair. "Although her appointment in LAWR is partial, she makes regular contributions to the department, and we take pride and pleasure in having her as a colleague."

Franklin Medals are awarded every year in the categories of earth science; chemistry; computer and cognitive science; engineering; life science; and physics. Ninety-eight Franklin laureates have gone on to win Nobel prizes.

**F. Thomas Ledig**, senior scientist with the USDA Institute of Forest Genetics, was made a fellow of the American Association for the Advancement of Science. He has been affliated with the Department of Environmental Horticulture for the past several years and soon will join the department as an adjunct professor.

## UC Davis Ranks First in Agricultural R&D

UC Davis leads all other U.S. universities in total research and development (R&D) expenditures in the agricultural sciences, according to the National Science Foundation (NSF).

In 2000, UC Davis spent \$128.1 million in grants and gifts on agricultural R&D. The second highest total was the University of Georgia's \$87.4 million, followed by the University of Florida's \$87.3 million. In federally financed R&D in the agricultural sciences, UC Davis (\$34.8 million) was second to Colorado State University (\$38 million).

In total R&D for all academic programs, UC Davis ranks 17th in total expenditures, 35th in federally financed expenditures, and 6th in non-federally financed expenditures. "Expenditures" are funds spent by an institution during its fiscal year.

The figures were made available in the NSFs, "Academic Research and Development: Expenditures: Fiscal Year 2000." The report compiled data from the NSF's academic R&D expenditures survey.



#### **Fenceline Facts**



**Edward Price**, professor in the Department of Animal Science, has demonstrated that providing fenceline contact between beef calves and their dams at weaning reduces the negative effects of artificial weaning on calf behavior and growth rate.

Beef calves typically are weaned from their mothers at six months of age. Calves still are nursing but are getting a large percentage of their nutrients from grazing. Early weaning is potentially stressful to both mother and calf. If left together, they would self-wean gradually at about nine or 10 months of age.

The purpose of Price's research was to determine whether there is a difference in stress when calves are weaned across a fenceline so that they have contact with their mothers vs. complete separation from their mothers.

Calves that were fenceline weaned spent the first three days close to the fence but thereafter increased their distance from the fence. They were completely weaned within five to seven days. Fenceline calves gained more weight than the regularly weaned calves. After 10 weeks, fenceline calves had gained 31 percent more weight than the average calf weaned away from its mother.

These findings indicate that fenceline contact between beef calves and cows at weaning reduces the negative effects of weaning on calf behavior and growth rate.

This work demonstrates how a simple husbandry change can lead to a significant increase in production. Price's study suggests that the beef cattle industry would benefit from alternative weaning procedures that reduce

the negative effects of abrupt, total separation of cows and calves.

#### Salt-tolerant Tomato Offers Hope

A genetically engineered tomato plant that thrives in salty irrigation water has been developed by plant biologists at UC Davis and the University of Toronto. As the first truly salt-tolerant crop, these tomatoes offer hope that other crops also can be genetically modified for planting in many areas of the world that have salty irrigation water and salt-damaged soils.

"Since environmental stress due to salinity is one of the most serious factors limiting the productivity of crops, this innovation will have significant implications for agriculture worldwide," said **Eduardo Blumwald** of the Department of Pomology. Blumwald led the research team that discovered the salt-tolerance gene.

The progressive salt-related loss of farmable land is on a collision course with the expanding global population, which is expected to require an increase in food production of 20 percent in developed countries and 60 percent in developing nations over the next 30 years.

#### **Makes Scents**

Associate professor **Walter Leal**, Department of Entomology, has collaborated with researchers in Switzerland and Japan to uncover a key part of insects' sense of smell. The discovery could result in the manufacturing of insecticides that prevent insects from communicating via chemical signals.

Leal and the other researchers employed nuclear magnetic resonance (NMR) to illustrate how a protein in an insect's antenna singles out chemical signals called pheromones and then modifies its shape to expel them precisely onto sensitive nerve endings. Many insects depend on pheromones to communicate with each other when searching for food or a mate.

"One could design new compounds that fit in the binding pocket of the protein, but cannot be ejected. This would prevent the insect from detecting other chemical signals," Leal said. "These insects would not be able

to reproduce without their sense of smell. Insects use their antennae to smell."

#### The Future of Animal Agriculture

Animal science researchers at UC Davis were among the contributors to "Animal Agriculture and Global Food Supply," a report issued by the Council for Agricultural Science and Technology. Eric Bradford, professor emeritus, Ransom Baldwin, professor emeritus, James Fadel, professor, and James Oltjen, management systems specialist, Department of Animal Science, were members of the 13-person international panel that prepared the report.

Consumption of meat, milk and eggs is increasing rapidly in developing countries, reflecting increases in both per capita intakes and in population. Meeting this increased demand has important implications for human nutrition, resource use and the environment. Actual impacts may be positive or negative, depending on where and how production occurs and how the products are distributed.

The report provides analyses of inputs and outputs in both developed and developing country animal production systems, and it assesses impacts on total food supply.

As for the big question—will there be enough food for everybody?—the report concluded it will be "challenging but feasible." To ensure an adequate global food supply, countries and policy makers will need to continue to invest in agricultural production research and production-oriented policies to bridge the gap. Making the most efficient use of technologies and techniques involved in food production is critical.

#### **Sudden Oak Slow Process**



**David Rizzo**, associate professor in the Department of Plant Pathology, is one of more than 60 specialists with the nonprofit California Oak

Mortality Task Force. Rizzo's current

emphasis is on Armillaria species in the coastal ranges and Heterobasidion annosum in Yosemite Valley. He is investigating the impact of pathogens and insects throughout forests in the Lake Tahoe Basin, Yosemite Valley, Sierra National Forest and Baja California.

In a recent journal publication, Rizzo and co-authors revealed that the pathogen causing Sudden Oak Death is previously known only in Germany and the Netherlands.

"The broad host range of Phytophthora ramorum that we discovered in California forests suggest that this pathogen has the potential to cause similar, long-term landscape level changes in these forests," Rizzo wrote.

The loss of big trees such as the oak will only increase the severity of forests fires, soil erosion and loss of wildlife habitat.

In 2000, Rizzo and his colleagues determined that Sudden Oak Death disease was caused by a never-beforeseen strain of fungi from the genus Phytophthora. As it turned out, a relative of this fungi caused the 1845 Irish potato famine, and another variation was linked to the dieback of cedar trees in Northern California and Southern Oregon, as well as eucalyptus trees in Australia and oaks in Mexico, Spain and Portugal.

The pathogen has been recovered from the California black oak, coast live oak, Shreve oak, tan oak, rhododendron, California bay laurel, big leaf maple, madrone, manzanita, huckleberry, California honeysuckle, toyon, California buckeye and California coffeeberry. Tests are ongoing to determine whether California's redwoods are at risk to this disease.

#### **Environmental Impact**

The College of Agricultural and Environmental Sciences, the UC Davis M.I.N.D. Institute, School of Medicine and School of Veterinary Medicine are establishing a research center to study the possible role that environmental contaminants—such as pesticides, polychlorinated biphenyls and heavy metals—play in the development of autism.

The project is being created under a \$5 million, five-year grant from the National Institute of Environmental Health Sciences. The grant creates the eighth such center in the U.S. and the first to specifically look at severe impairments of social behavior as a casualty of ubiquitous toxins.

Autism is a neurodevelopmental disorder characterized by social impairment, language deficit and repetitive behavior. To date, autism research has been focused largely on finding the gene or genes that cause the disorder to make some children more susceptible. Suspicion is growing that a child's contact with chemicals provides the final push for individuals genetically predisposed for autism.

Key researchers from the college include **Bruce German** from the Department of Food Science and Technology, **Fumio Matsumura** from the Department of Environmental Toxicology and **Bruce Hammock** from the Department of Entomology.

#### **New World Leader?**



Professor **Serge Doroshov**,
Department of
Animal Science, is
one of the foremost authorities
on bred sturgeon
and has studied

the fish since 1962. His vision of nurturing the California sturgeon aquaculture—and his ability to inspire others with that vision—has catapulted California past the former Soviet Union Caspian Sea area as the world's most sturgeon-productive region.

The world of bred sturgeon is small. Besides about eight farms in California, there are a handful of farms scattered around the U.S. and Europe that culture sturgeon, including efforts in Italy, Germany and France.

From a scientific perspective, little has been known about the enigmatic fish that produces caviar until the last couple decades.

Over-fishing of the prized sturgeon occurred in California during the 19th century and in the Caspian Sea after the fall of the Soviet Union when little,

if any, regulation existed. Today, California allows few permits for wild sturgeon fishing and prefers to let aquaculture farms raise the fish.

Industry regulation has proved valuable for researchers like Doroshov seeking to learn more about sturgeons in controlled, captive environments.

In 1980, Doroshov demonstrated that he could hatch white sturgeon by catching adults in the wild and hormonally inducing ovulation and sperm production. He also showed that sturgeon could be raised in ponds and tanks and on artificial food.

Doroshov recently applied research findings in nutrition, genetics and reproductive physiology to breed bigger, longer-living sturgeons with an emphasis on caviar-laden production.

Doroshov notes that other CA&ES researchers—including Department of Animal Science professors **Gary Moberg, Juan Medrano, James Murray** and **Silas Hung** and Department of Wildlife, Fish and Conservation Biology professor **Joseph Cech**—have contributed to white sturgeon research.

#### Waterfowl and Rice Farming?

UC Davis researchers say that what's good for ducks may also yield better rice farming. Researchers have collected field data on the effect of waterfowl in flooded rice fields. The study follows graduate student Jeff Bird's study in 2000 that examined this issue, but only in experimental rice plots.

The new study involved a 65-mile stretch of rice farming land in California's Central Valley. Findings show that the waterfowl decreased weed growth by 50 percent and increased straw decomposition by 30 percent, making for good rice farming conditions.

During the winter, farmers must contend with problems such as growth of weeds and disposal of rice straw left after harvest. Straw decomposition helps break down the fields to prepare for next year.

"These findings clearly demonstrate that wildlife and rice production can co-exist," said **Chris van Kessel**, professor of agronomy and range science. "This is a welcome departure from the previous line of thinking that waterfowl and rice farming interests could not equitably share wetland habitats."



John Eadie, professor of wildlife, fish and conservation biology, noted that the results demonstrate that foraging waterfowl

increase residue decomposition and reduce weed growth over large parts of California. "Imagine them as flying rototillers," he said.

This is important because California is phasing out rice burning, and allowing waterfowl to break down straw in flooded habitats is a viable alternative. Winter flooding follows the fall harvest and is used throughout the Central Valley.

Van Kessel acknowledged that the winter flooding of rice fields has tremendous potential for providing wetland habitat for ducks and other waterfowl. The birds consume rice straw and pests in flooded rice fields. Also, with diminishing natural wetlands throughout California, rice fields can provide sanctuary and habitat for migrating waterfowl and shorebirds. As waterfowl scour their habitats for insects and weed seeds, the birds may also yield other benefits for farmers, including less reliance on pesticides and herbicides.

Eadie said the research reaffirms the efforts of governmental and private groups advocating the use of rice fields for winter waterfowl habitat. "Winter flooding is an opportunity to integrate wildlife management into an existing farm system with noteworthy benefits for farmers and waterfowl," he added.



Van Kessel, Eadie, professor William Horwath in the land, air and water resources department and graduate student Edward

Burns in the wildlife, fish and conservation department conducted the project.

## UC Davis Tops Nation in Environmental and Agricultural Research



UC Davis was the most prolific research institution in publishing environmental and ecology research papers during 1996-2000, according to a national publisher of research databases.

UC Davis is also ranked third in the number of citations made of its agricultural science research papers in the same period.

Papers and citations are important because they indicate cutting-edge scientific findings that include both original research and groundwork for advanced research. The Institute for Scientific Information (ISI) in Philadelphia tracks scientific publishing in prestigious journals such as Nature, Science and the Proceedings of the National Academy of Sciences.

"It is gratifying for our faculty to learn from such a reputable organization as the ISI that our research programs in the environmental sciences and ecology, agriculture, and food science and nutrition are the most productive university-based programs in the world," said Dean Neal Van Alfen. "The research in the College of Agricultural and Environmental Sciences has impact and is a good investment in advanc-

ing the frontiers of knowledge."

ISI found that UC Davis ecology and environmental researchers had 862 papers published from 1996 to 2000. That accounts for 1.02 percent of all the 84,919 papers entered into the ISI database from ecology and environmental journals. The next most prolific institution in this area was the University of California, Berkeley, which produced 724 papers in the same period.

Other universities, in order, include Colorado State University with 658 papers, University of Florida with 634 papers University of Minnesota with 633 papers, and Cornell University with 609 papers.

UC Davis also was ranked first in food science and technology and fifth in entomology/pest control in regard to the numbers of papers produced between 1996 and 2000.

Van Alfen noted, "When legislators and citizens ask us what we are doing for California, I believe that we can honestly answer that we are providing a quality of service and research that is unrivaled in the world. Taxpayers can feel confident that the state's investment in the University of California system is returning substantial dividends."

### **Sea of Cortez Memorial Planting**

The UC Davis Arboretum dedicated permanent and living memorials to five scientists who died March 2000 on a university research trip to the Sea of Cortez.

The five memorial trees—one for each scientist—were planted on campus just southwest of Putah Creek Lodge. A limestone memorial beneath the trees honors the lives of Gary Polis, chair of the UC Davis Department of Environmental Science and Policy and trip organizer; Michael D. Rose, postgraduate researcher and technician for Professor Polis; and Kyoto University ecology professors Masahiko Higashi, Takuya Abe and Shigeru Nakano.

The researchers, along with several UC Davis students and volunteers, traveled to the Sea of Cortez to study the ecology of scorpions and spiders inhabiting the sea islands.

Dean Neal Van Alfen paid tribute to the five scientists and reminded family, friends and colleagues attending the memorial service that the trees are living memorials. "...by planting these trees," he said, "there will be a constant reminder not only of what was but of what might have been... because that is part of life."

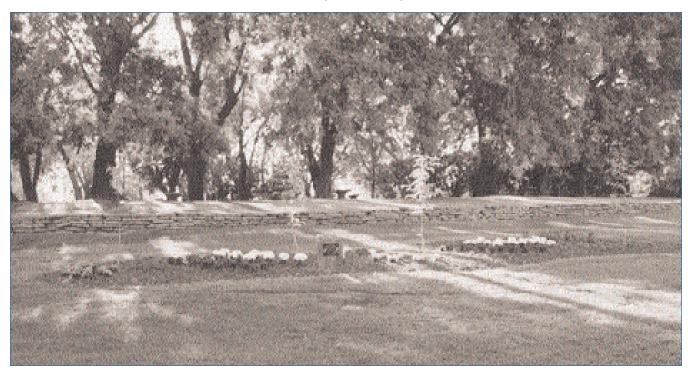


"We chose trees that grow well here and have beautiful flowers in their season," said Warren G. Roberts, arboretum superintendent. "Their geographical origins relate to the men in whose honor they were planted. We conferred with the families of these scientists and received their approval for these choices."

For the UC Davis researchers, two flowering chitalpa trees, native to Baja California, were planted. In remembrance of the Kyoto University scientists, the university chose Japanese magnolias. Beneath the trees are colorful chrysanthemums, reminding onlookers of the vitality of the people they honor.

The permanent memorial plaque contains a quote from John Steinbeck, who wrote of the Sea of Cortez:

"Life and living: Lord, how the day passes! It is like a life, so quickly when we don't watch it, and so slowly if we do."



## **Clearing the Air**

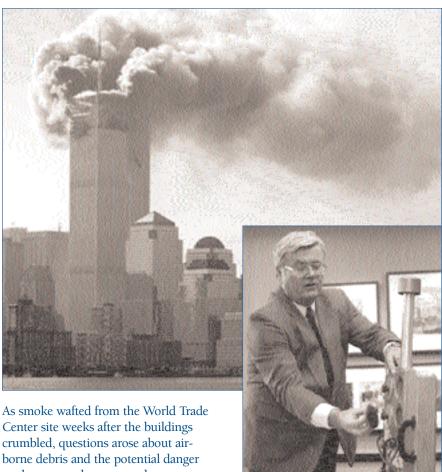


Photo courtesy Debbie Aldridge, Mediaworks

As smoke wafted from the World Trade Center site weeks after the buildings crumbled, questions arose about airborne debris and the potential danger to clean-up and rescue workers.

Immediately after the towers fell, the U.S. Environmental Protection Agency (EPA) began taking samples. To examine the types of particulates in the air, a team of specialists from the University of California, Davis, was called to the scene in New York City.

Thomas Cahill, professor emeritus of physics and atmospheric sciences, Department of Land, Air and Water Resources, and international authority on the constituents and transport of airborne particles—along with fellow researchers—detected unprecedented clouds of very fine particles at the World Trade Center site. These particles, the team noted, should be taken into consideration regarding the issue of rescue workers' and residents' health problems.

Cahill's group also suggested specific cleaning methods for contaminated apartments, offices, schools and other indoor spaces.

"No one has ever reported a situa-

tion like the one we see in the World Trade Center samples," said Cahill. "The air from Ground Zero was laden with extremely high amounts of very small particles, probably associated with high temperatures in the underground debris pile. Normally, in New York City and in most of the world, situations like this just don't exist."

Following a U.S. Department of Energy request, the Manhattan air samples were collected from Oct. 2 through mid-December 2001.

Cahill heads the UC Davis DELTA Group (for Detection and Evaluation of Long-range Transport of Aerosols), a collaborative association of aerosol scientists at several universities and national laboratories. The DELTA Group has made detailed studies of aerosols from the 1991 Gulf War oil fires, volcanic eruptions, global dust storms and–most recently–Asia.

#### In Memoriam

CA&ES

#### Lester J. Berry

Cooperative Extension Range Science Specialist Department of Agronomy and Range Science May 1, 2001

#### Constant C. Delwiche

Professor and Chair, Retired Department of Land, Air and Water Resources September 22, 2001

#### **Harold Forde**

('38, Plant Science) Staff Research Assistant Department of Pomology October 13, 2001

#### Joseph Bernell Harlan

1990 Award of Distinction Recipient October 27, 2001

#### **James Thayer**

(B.S., '70, Soil and Water Science; M.S., '73, Soil Science) Department of Land, Air and Water Resources November 16, 2001

#### Norman M. Andrews

Principal Superintendent of Agriculture Manager, Agronomy Farm Department of Agronomy and Range Science November 17, 2001

#### Alfred H. Murphy

Superintendent Emeritus
Hopland Field Station
AES Specialist
Department of Agronomy and
Range Science
December 22, 2001

#### Gene Begg

Professor Emeritus Department of Land, Air and Water Resources Soils and Biogeochemistry February 1, 2002



Paul M. Hinshelwood (M.S., '51, Animal Science) of Grass Valley, California, retired in 1986 as a senior food and drug inspector for the State of California. He is a docent at the Empire State Historic Park and also president of the Nevada County Historical Society.

"We're busy with plans to open a new railroad museum for our narrow-gauge engine," he writes.



J. Neil Rutger (M.S., '62, Agronomy; Ph.D., '64, Genetics) of Stuttgart, Arizona, is director of the Dale Bumpers National Rice

Research Center. The center, which serves Arkansas, California, Louisiana, Missouri, Mississippi and Texas, conducts research to help keep the U.S. rice industry competitive in the global marketplace.

Prior to joining the center in 1993, Rutger served four years as an ARS administrator in Mississippi, 19 years as an ARS geneticist on the UC Davis campus and six years on the plant breeding faculty at Cornell University. He and wife Peg have two daughters.

William C. Reische (B.S., '65, Entomology; M.S., '68, Entomology) of Littleton, Colorado, recently retired from DuPont Agricultural Products following 33 years of service. He was a field technology manager in Denver. Reische resides in Littleton with his wife Auburn.



Lourminia Carino Sen (Ph.D., '72, Agricultural Chemistry) of Davis was appointed the first agricultural and environmental

science adviser to the California

Department of Food and Agriculture (CDFA). She serves as a technical consultant and representative on policy issues impacting agriculture.

Sen formerly was a post-graduate research biochemist and lecturer at UC Davis and a supervising chemist of CDFA's Pesticide Residue and Food Safety Section. She earned her B.S. from University of the Philippines and M.S. from Oregon State University.

Sen and husband Arun have two daughters, Anita and Monia. In 1991, the City of Davis presented her the Brinley Award for contributions to the community.

Connie Munger Quinlan ('73, Individual) of Salinas is executive director of Monterey County Agricultural Education in Spreckels, California. She was named Outstanding Ag Woman of 2001 for Monterey, Santa Cruz and San Benito counties.

Quinlan has been recognized with resolutions from the Monterey County Board of Supervisors, California State Senate, California State Assembly and U.S. Senate for contributions to the agricultural industry and to agricultural awareness programs. Quinlan was asked to deliver remarks to the National Ag in the Classroom Conference in Chicago last year when U.S. Secretary of Agriculture Ann Veneman was unable to attend.

**Peter Marks** ('76, Food Service Management) of Napa is curator of wine at COPIA, the American Center for Wine, Food & the Arts in Napa (See page 8). He is responsible for all wine programs, including wine education, and for developing a private wine label for COPIA.

Before joining COPIA, Marks was chief wine merchant at Wine.com, a wine Internet retailer and, prior to that, director of wine for Draeger's Supermarkets.

Marks is one of 14 American members of the Institute of Masters of Wine located in London. He is education coordinator for the institute's practical tasting exam. He is the first American to receive the Madame Bollinger Foundation Award, presented annually

to the Masters of Wine candidate with the highest practical (tasting) score. Marks is a member of the Society of Wine Educators.



Margaret A.
Lawson (B.S., '77,
Food Science;
M.S., '79,
Agricultural
Chemistry) of
Fullerton,
California, has

been elected a fellow of the Institute of Food Technologists (IFT). The award for distinguished achievement was presented at the organization's annual meeting in New Orleans. Fellow is a distinction bestowed on individuals with outstanding qualifications experience and contributions to the field of food science and technology and service to IFT.

Lawson is research and technology manager for T. Hasegawa Flavors in Cerritos. She directs, coordinates and oversees all research, product development, quality control and culinary applications and a staff of 18 scientists.

Considered an international expert in dairy product technology, Lawson previously worked for Ralston Purina, Kelco, New Zealand Milk Products and FMC Corporation. She is active in the graduate education of professional women and has served as a member of the Department of Food Science and Technology industry advisory board since 1997.

Lesley Vasey ('77, Food Service Management) and Thomas S. Vasey ('76, Biological Science/Physical Education) of Sacramento celebrated the 25th anniversary of the painting company Tom founded and their 26th wedding anniversary in 2001. Tom is a contractor and owner of TSV Painting, Inc., which specializes in commercial painting projects.

In 2001, Vasey's firm was presented an award of excellence by the Golden Gate Chapter of Associated Builders and Contractors for the University Retirement Community Main Building in Davis. The award recognizes the quality and distinction of open/merit shop construction projects.

**Robb Rodden** ('78, Nutrition Science) of Davis, principal of a new South Davis elementary school, is a long-time teacher in the Davis School District. He previously served as interim principal at Patwin Elementary School and vice principal at Willett Elementary School. He was a mentor teacher from 1995 to 1998 and served as associate manager of the School/University Partnership at UC Davis in 1999-2000.

Rodden earned a Meritorious Service Award from the Davis School District in 1995 and was cited as an Outstanding Teacher Adviser by the California Teachers Association in 1997.

Rodden is married to **Linda Rodden** ('71, Nutrition Science).

Joan Deady (M.S., '79, Nutrition) of San Francisco is a pharmacist with Sutter Health. She recently published Lowfat Cooking in the Cultural Blur of California, a cookbook featuring lowfat recipes. The book promotes a weight loss diet that is heart healthy, low in cholesterol and low in calories—California cuisine she describes as cross-cultural and that relies on fresh ingredients in vegetarian, fish, chicken and pasta recipes.

Deady was presented a certificate of merit by *Writer's Digest* 2000 National Self-published Book Awards.

James McLaughlin ('80, Agricultural and Managerial Economics) of Napa was appointed captain of the Napa-area California Highway Patrol in 1999. He oversees CHP operations in Napa County and the Sonoma Valley.

McLaughlin joined the CHP soon after graduating from UC Davis. His career has included assignments in Los Angeles, Imperial County and Sacramento. McLaughlin and wife Diane have two children.

**Robert Coakley** ('86, Agricultural and Managerial Economics) of Everett, Washington, is assistant director of

Worker's Compensation underwriting in the home office of SAFECO Insurance Company. He has been with the firm for 12 years. Coakley and wife Jody have three children–Justin, Alyssa and Kevin.

**Thomas H. Shellhammer** (B.S., '87, Fermentation Science; M.S., '89, Food Science; Ph.D., '96, Biological and Agricultural Engineering) of Corvallis, Oregon, is assistant professor of food science at Oregon State University. He holds an endowed chair position in brewing science. Shellhammer moved to the new positon from Ohio State University.

David Sereni ('88, Food Science) of Santa Rosa is a senior physical therapist at Kaiser Permanente. He and wife Lisa, a registered nurse, run the Northern California Chapter of Families of Spinal Muscular Atrophy, a volunteer, non-profit organization providing support and resources for families and raising funds for research (www.FSMA.org). Their involvement results from the loss of their infant son Matthew to SMA in 1999.

The Serenis welcomed daughter Marian Rose to their family in November 2001. According to David Sereni, genetic research enabled them to determine that their daughter was healthy through prenatal testing.



Scott Hutsenpiller ('90, Design) of Portland is director of advance design for NIKE's All Conditions Gear Division.

"My role has

me out in front of the seasonal design team...I feed the design team with advance product concepts that incorporate the latest technologies in garment construction and materials," he writes. "It has been a very rewarding experience."

Hutsenpiller has been with NIKE since 1996.

**Kristina Seyer Smith** ('92, Design) of Fremont, California, works at Stanford

University in geographic information systems. As manager of maps and records, she provides current records on the conditions of campus lands, buildings and infrastructure.

"We interviewed the staff to see how they used spatial information and came up with a long-term plan for implementing technology that will create a shared database for all Stanford facilities and lands," Seyer Smith said.

The plan integrates efforts already underway on campus. For example, every light post, manhole cover and tree was added to the database for the benefit of facilities operations.

The project may have much greater potential, depending on the information ultimately gathered and entered into the database. Campus visitors could be guided to their destinations by using a global positioning device. Faculty and staff could access information about facilities and buildings from their desktops. Workers already are using the global positioning system to locate mapped utility lines.



Rodwin Pabello ('93, Design) of San Francisco is art director at SEGA, a video game company that focuses solely on making video

game software titles for competitor console platforms. He began three years ago as a Web designer; he is now responsible for the company's online presence at www.sega.com. "An average of 40,000 viewers visit this daily," Pabello writes. "The design and creation of this site is my greatest career accomplishment."

Previous to joining SEGA, Pabello worked as a designer with Winterland (Bill Graham's concert merchandising company), Celebrity Cellars (Sony's celebrity merchandising collectible company) and Video Vision (an independent cable music video program).

Pabello is creating a summer intern program at SEGA for UC Davis design students.

**Keri Lanier** ('95, Design) of Woodland is marketing director for Chase International Distinctive Homes. She previously worked for McNally Temple Associates in Sacramento and served as art director for R.H. Phillips Winery, winning a number of gold medals and awards for her distinctive designs of wine labels and other materials.

Joel Patton ('96, Design) of San Francisco is a designer at Levi Strauss. He is in charge of the khaki line of menswear pants and responsible for its global production. While receiving an advanced design degree in New York, he did one term in London to get an international perspective on menswear tailoring. Prior to his current position, Patton worked in New York for Tommy Hilfiger menswear.

**Greg Price** ('97, Environmental Design) of Sacramento was named to the International Interior Design Associates, Northern California Chapter board of directors. He is account manager for Miles Treaster & Associates in West Sacramento.



Amy Sundquist (B.S., '98; M.S., '01, Atmospheric Science) of Davis is an air pollution specialist for the California Air Resources Board

(ARB). Her job is to forecast for agricultural burning. Based on wind, temperatures and other atmospheric conditions, ARB determines the amount of Sacramento Valley agricultural land that can be burned while simultaneously maintaining statewide air quality standards.

Linda Welch (M.EA., '98, Textile Arts and Costume Design) of Sacramento recently opened Exploding Head Gallery in downtown Sacramento. She brings together artists from Sacramento and outside the area. Exhibitions rotate monthly and coincide with a broad selection of unique ceramic artworks.



Gabriel Randolph C. Tan ('98, Human Development) of Fair Oaks, California, is a general researcher and government man-

agement consultant with Citygate Associates in Folsom.

Tan previously worked in the public sector with the California Department of Alcohol and Drug Programs and the California Department of Health Services. He holds a Master of Health Administration from the University of Southern California's School of Policy, Planning and Development with emphasis on public policy and administration. He was named Outstanding Senior at UC Davis in the 1997-98 academic year.

Chris Unti ('98, Agricultural and Managerial Economics) of Mammoth Lakes, California, is internal controls manager of Mammoth Mountain Ski Area. Unti managed the 1998 UC Davis men's national championship ski team.

Amy Bethancourt ('01, Design) of Davis is a graphic designer with Public Media Center in San Francisco, a public-interest advertising agency focused on advocacy campaigns and collateral, television, Web and radio for non-profit organizations. Her work has appeared in New York City subway cars, the Weekly Guardian newspaper in London and in the New York Times.



Jeff Bird (Ph.D., '01, Soil Science) of San Francisco is a post-doctoral researcher at UC Berkeley. His project involves the examination of the

biological processes underlying belowground carbon sequestration in temperate forests. He believes that understanding these mechanistic processes allow for better forest management. Bird's project will last three years.

Bird received his undergraduate degree in agronomy at Cornell

University and his M.S. in plant and soil science from the University of Vermont. His studies at UC Davis focused on how soil organic matter provided a reservoir for nutrients in a rice ecosystem.

**Jason McKibben** (M.S., '01, Food Science) of Santa Monica recently was promoted to brewing group manager of Anheuser-Busch Los Angeles Brewery.



Nalani Ngoon ('01, Landscape Architecture) of Palo Alto, chose the design of a war veteran's memorial in Roseville, California, as her senior project. The memorial was inspired by her late grandfather, Chin Thlu Ngoon, who served as a second lieutenant in the Army Air Corp during World War II. He was a bombardier navigator, and, on his second mission, was shot down and held prisoner for the last year of the war.

Roseville dignitaries and members of the committee overseeing the memorial project were so pleased with the project and Ngoon's participation that they honored her and the memory of her grandfather at a ceremony on the UC Davis campus. Members of the memorial committee and a group of veterans planted a gingko tree on the south lawn of Hunt Hall in memory of her grandfather.

Professor Rob Thayer, Ngoon's supervisor for the project, acted as master of ceremonies. Victor Carbone, a Roseville resident and WWII veteran, spearheaded the recognition effort.

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