The Land-grant Heritage is Alive and Well...

By Neal Van Alfen

Where should the College of Agricultural and Environmental Sciences invest its research resources? Decisions made today must anticipate research needs for many decades to come, so choosing among the many issues that could benefit from research attention is taken very seriously by our faculty and college.

Two years ago, the college completed a major planning process in which recommendations were made by a faculty committee and accepted by my office. In past issues of CA&ES Outlook, we introduced you to two of the areas that we selected for investment: genomics and water/watersheds. In this issue, we are introducing a third: foods for health. We feel that we are now able to allocate new resources to this exciting area of research.

For the majority of the world's inhabitants, food choice is a relatively recent phenomenon since - prior to the advent of refrigeration and rapid transportation - food availability for the masses was limited largely by geography and seasons. It is estimated that in the Middle Ages, the majority of Northern Europeans derived up to 90 percent of daily calories from bread.

Any visitor to a modern supermarket recognizes that our lives have changed. Today, we have the luxury of asking which of the thousands of food choices that greet us in modern markets meet our individual palates, health needs and goals. Interest in food choices never has been greater than today; yet, we know little about the topic.

Foods contain an incredible variety of complex chemicals, some in amounts that are sufficient to affect our health - in both negative and positive ways. The potential food sources that are acutely toxic to humans were identified by our ancestors, presumably by a trial-and-error process. We now are becoming aware of compounds in our foods that may have long-term adverse or beneficial health affects. We are learning of these primarily through correlations between health and consumption. However, as we learn more about human nutrition, our goal is to use this knowledge to anticipate what happens when we consume various food compounds.

Many compounds are discussed routinely in the popular press, often in ways that leave most of us confused. Do the good chemicals in chocolate "trump" the adverse affects of the fat? Clearly, research is needed to provide the type of reliable information necessary to make healthy food choices.

Foods for Health, the theme of this issue of CA&ES Outlook, means more than merely accepting what nature - in its random way - provides for us. For a long time, we have had the knowledge to alter food content in order to increase healthfulness before packaging. We have been altering foods for most of the past century. i.e. milk is fortified with vitamin D, and vitamins and minerals routinely are added to packaged foods. Through fermentation, we can create entirely new foods and beverages that do not exist in nature, such as bread, yogurt, tofu, cheese, beer and wine.

We are entering an era, however, when we can genetically alter the chemical content of foods to either decrease the amount of harmful chemicals or add beneficial chemicals that cannot be added economically during processing. The concept of "Foods for Health" is that we can link food production, food processing and nutritional studies together in ways that never before were possible. Foods can be designed to enhance our health.

By embracing new knowledge to change our foods, we do not turn our backs on the art and culture of food and beverage preparation. Knowledge of how grape vines grow and the understanding of the complex chemistry of wine fermentation do not replace the artistry of winemaking but complement it. Knowledge reduces uncertainties and increases the quality and safety of food and beverages while allowing us to continue enjoying the art of preparation and consumption.

One of UC Davis' strengths is the strong linkage that exists among scientists across campus; our scientists don't worry about administrative boundaries in seeking partners for their research. Our nutrition programs are closely linked to the UC Davis School of Medicine and the UC Davis School of Veterinary Medicine. With the recent move of the USDA Western Human Nutrition Research Center to campus, there will be even greater opportunities for partnerships to develop between the agricultural and health sciences.

Many of the faculty members necessary to assure the success of the Foods for Health Initiative are on campus already, and we will add faculty positions in the next few years to bolster our programs in this area. Advances in how to produce and process better foods will increase demand for products grown in California. Our work will have special benefit for California farmers, the California food industry and California consumers.

Key to the success of this initiative is the development of new facilities for our Department of Food Science and Technology and Department of Viticulture and Enology. These departments currently are housed in some of the college's most antiquated facilities.

The college has identified new research and teaching facilities for these departments as its top priority. With active partnerships between the campus and the industries that we serve, we hope to build exciting new facilities and the world's leading program linking food production, food and beverage processing and human health. We are investing our research resources in Foods for Health - an investment in our future and in yours.
Foods for Health

By Karen Finney

Most issues affect only segments of our population. Most issues, that is, except food. The safety and quality of what we eat are concerns that unite us all.

Enhancing our food supply, increasing our knowledge of nutrition, and preserving our agricultural systems that feed Californians and much of the world are priorities for the College of Agricultural and Environmental Sciences.

We have research teams, information centers and special projects dedicated to these priorities. A few of the people directly involved in this work are pleased to share their efforts with you in this issue of CA&ES Outlook.

Improving Infant Formula

While mother’s milk is the best option for babies, breastfeeding is not an option for every mother. Bo Lönnerdal, professor of nutrition and internal medicine, has focused some of his research on creating infant formula that is more closely related to breast milk.

Breast-fed infants tend to be healthier than formula-fed infants, and one of the reasons why is that the proteins in breast milk prohibit the growth of pathogens that cause intestinal and respiratory disease. In partnership with a Sacramento biotechnology company, Lönnerdal utilizes genetic modification techniques to insert beneficial human proteins into rice plants. The goal is to use the modified rice as the basis for a new infant formula.

While much additional testing is required before the rice-based formula is available, Lönnerdal believes that this type of genetic modification may be more acceptable to consumers because it directly benefits human health by improving the lives of children - and their parents.

Increasing the Quality of Cow’s Milk

James Murray, professor of animal science, also is trying to make healthier food for children. Instead of modifying plants, he hopes to alter cow’s milk at its source.

The ultimate goal of Murray’s work is to develop a dairy cow genetically altered to express genes responsible for the antimicrobial qualities of human breast milk that can help children stay well. “We are trying to make cow’s milk that is healthier and more wholesome for human consumption,” Murray explains. Currently, he is using goats as a research model. Once they express the beneficial gene at the appropriate levels, the same procedure will be tried on cows.

Murray adds that the human gene also could reduce the incidence of mastitis, a serious infection for cows and a great expense for dairy farmers. Yet, he is most inspired by what his work can contribute to the quality of milk, the number one agricultural commodity in California. “What I’m doing can make a tremendous difference in many people’s lives,” he says.

Bringing a Piece of the Ocean to Davis

As the worldwide appetite for fresh fish increases, ocean fishing and hatcheries are becoming less capable of keeping up with that appetite. Aquaculture - or fish farming - can fill that need. A UC Davis aquaculture project to farm California halibut may help this fast-growing segment of the global food economy.

Now in its beginning stages and the only one of its kind on the West Coast, the project has the unique advantage of combining nutrition research with engineering research. It involves bringing eggs from the California Halibut Hatchery Program in Redondo Beach together with seawater from the Bodega Bay Marine Lab in a system of containers that are monitored continuously for temperature, salinity, waste filtration and other factors that affect halibut growth.

Why the Halibut?

“Its bottom-dwelling nature makes it a good candidate for culture in an aquaculture setting,” explains Raul Piedrahita, professor of biological and agricultural engineering. Bottom-dwelling flat fish are less active than other types of fish. Freed from the necessity of converting food into the energy necessary for swimming, they instead convert more of their food into flesh. Piedrahita also notes that the species, indigenous to the Pacific Ocean between Baja and Oregon, is appreciated by many fish eaters and, thus, has strong market potential.

While Piedrahita is designing the intricate lab environment to maintain the fish, Doug Conklin, associate professor of animal science, is contributing nutrition inquiry to the study. He is interested in the relationships of diet, water quality and culture on fish growth, as well as nutritional values for humans, including the polyunsaturated fatty acids that could decrease cholesterol deposition. “We’re looking at whether aquaculture systems can provide the optimal conditions for fish to convert food into usable protein and nutrients,” he says.
Discovering How One Person’s “Don’t” Can be Another Person’s “Do”

Whenever we hear information about nutrition, it tends to involve the word “don’t,” as in “don’t eat fat” or “don’t eat sugar.” Barbara Schneeman, professor of nutrition, is instead interested in advising people about what they should eat.

Schneeman highlights the role of dietary fiber to human health in her research, which has supported recommendations to increase consumption of fruits, vegetables, whole grains and dry beans. In addition to fiber, these plant foods contain other compounds - phytochemicals - with both positive and negative health effects.

In Schneeman’s research, trypsin inhibitor, a compound found in dry beans, is reported to increase the sensation of satiety - or feeling full - after a meal. Older research had mainly reported the negative effects of trypsin inhibitor on protein digestion.

“It’s intriguing,” Schneeman says. “Under one set of circumstances, the compound may be beneficial and help curb appetite; but, in another situation, it is antinutritional and lowers protein quality. As with many of these phytochemicals, the challenge is finding a point of balance.”

Schneeman, who recently served as an adviser to federal agencies responsible for making national diet and health recommendations, comments, “As a researcher, I find this new area exciting. It illustrates that nutrition research is dynamic and evolving with many discoveries still to come. However, I worry that the reports are confusing to consumers who probably are best served by remembering that the cornerstones of good nutrition are moderation, variety and balance.”

Making Tomatoes Even Better

California produces more processing tomatoes than any other state in the United States. Alan Bennett makes sure that California produces the country’s best tomatoes.

A professor of vegetable crops, Bennett uses genetic modification strategies to select and enhance specific plant qualities. He has, for instance, produced tomatoes with longer periods of ripeness, giving them longer shipping and shelf lives. He also has produced tomatoes with higher sugar content, key to improving taste in processed tomatoes.

Bennett is turning his attention to creating tomatoes higher in antioxidants - nutrients that could benefit cardiovascular health and reduce some cancer risks. It involves a meticulous search process. “First we have to find a wild relative of the tomato with elevated levels of antioxidants, then locate the exact genes responsible for accumulating those compounds so we can track the transfer of those genes using DNA markers,” Bennett says.

The beneficial traits have been identified in a wild tomato plant and will now be used as starting points for selectively breeding a healthier commercial tomato.

Preserving Sustainability

The overall goal of most research is to influence future decision making, yet research is not usually as forward-looking as the Long-Term Research on Agricultural Systems (LTRAS) project. Director R. Ford Denison, professor of agronomy and range science, says that while LTRAS does provide interim results, the real intent is to find out how irrigation and fertilization practices influence sustainability over the course of a century.

“Preserving the productivity of our land is our number one goal,” Denison says. “The question we are asking is, ‘Are we doing anything now that reduces our ability to grow food 100 years from now?’”

Research at the 300-acre site currently focuses on 70 acres of common crops - tomatoes, wheat and corn - on which conventional and alternative farming practices are applied. Comparisons can be made, for instance, between heavy irriga-
tion and light irrigation, or between chemical nitrogen fertilizer and nitrogen-fixing cover crops. Researchers can then examine environmental outcomes and system productivity over time.

Short-term results might show positive trends, yet "other long-term datasets show that positive short-term yield trends can be followed by a crash," Denison says. "But trends in soil properties may provide advance warning."

**Anticipating the Effects of Foot-and-Mouth Disease**

Lovell Jarvis, professor of agricultural and resource economics, has spent his career researching livestock issues. Recently, his attentions have targeted Foot-and-Mouth Disease - both for what it is and for what it isn’t. "Foot-and-Mouth Disease does not affect humans," Jarvis says, "but the potential economic damage to livestock industries is great."

The United States has not experienced Foot-and-Mouth Disease since the 1920s yet, as the recent outbreak in the United Kingdom shows, it is still a real danger. Containing the disease is difficult. "It is highly contagious. Infected livestock do not show symptoms for several days and the symptoms, when they appear, are similar to those caused by other diseases. Thus, it is possible to miss the initial diagnosis," Jarvis says. "Regardless, by the time the first animal is diagnosed, it is likely to have infected its entire herd and possibly others miles away."

For these reasons, Jarvis recommends the rapid slaughter of all infected and exposed animals, including those not showing symptoms. Otherwise, losses could be extreme. A study by Javier Ekboir, a post-doctoral fellow who worked with Jarvis, simulated the likely effects an outbreak would have in the Southern San Joaquin Valley - home to many California dairy herds.

If eradication begins within two weeks of the initial infection, herd losses could be contained at about 18 percent. If the response begins just one week later, losses could be as high as 100 percent. "It's essential to take draconian measures as fast as possible to stop the spread of the disease," Jarvis says.

**Developing Pest Management Strategies**

Last year UC Davis became home to the new Western Region Pest Management Center, one of a network of four centers nationwide. The center unites growers, Cooperative Extension specialists and researchers in 13 western states to provide information to the USDA and U.S. Environmental Protection Agency about pest management priorities. One task is developing strategic pest management plans for specific agricultural commodities that encompass the needs of growers and regulators, along with safety to humans, non-target organisms and the environment.

The plans identify pests that drive the use and timing of pesticides. With this information, approaches are outlined for the transition from pesticide uses of concern to those that are less risky. Once a plan is developed, the center assists farmers by identifying funding sources for research and education and by providing information to regulatory agencies on practices for smoother transitions.

Center director Rick Melnicoe notes that the primary value of the center is its role as a link between farmers, researchers and regulators. "Our philosophy is to preserve both the integrity of the land and the well-being of the farming community through cooperation," he says.

**Considering Food Labeling Dilemmas**

George Bruening, professor of plant pathology, is an internationally recognized authority on viruses that can devastate crops and agricultural economies. His research focuses on developing transgenic (genetically modified) plants with built-in resistance to those diseases. He is very concerned about the prospect of labeling foods for genetically modified organisms (GMOs) - not because of what it would communicate to consumers but because of what it might not communicate to them.

Bruening supports current U.S. policy on food labeling for specific content - vitamins, fat, calories and all information of value to consumers - but does not think labeling for GMO origin provides information of any use.

"GMO labeling targets just one tool in improving food production (transgensics) and ignores the many other tools that have changed plant genes more than they have been changed by genetic engineering," Bruening says, referring to techniques such as cross breeding and inducing mutations with radiation.

"But, if we label foods for all processes that change genes, the labels will have an uninformative sameness of technical gibberish. And changes in labels are not free. Every part of the food label that requires ingredients to be segregated leads to higher product costs."

Bruening adds that GMO labeling reveals nothing about food safety. Many GMO crops allow reduced use of chemical pesticides and replacement of some chemicals with more environmentally friendly versions. These are among the most important benefits of GMO crops to date. But "using GMO crops does not always require changes in the way farmers traditionally do business," he says, "and GMO labeling
will not reveal anything about herbicide and pesticide residues.”

The issue is not simple, certainly not as simple as the statement “made with GMOs” might make it seem. When Bruening talks with the media, students and policymakers, he recommends that proposed changes to food labeling be approached with caution and based on what we truly know about food and health. “Most people at this point in time have eaten transgenic foods, and there is no evidence, and absolutely no reason to expect, that anyone has been harmed because of it,” he says.

**Mobilizing Campus and Industry Resources**

The California Institute of Food and Agricultural Research (CIFAR) unites researchers throughout the UC system with industry representatives and policymakers to confront agricultural problems. “CIFAR is a catalyst,” explains director Sharon Shoemaker. “It is an outreach and bridging organization for solving critical issues.” While based at UC Davis, the organization is entirely self-supporting and funded by industry contributions.

CIFAR’s overall responsibility is to connect multi-disciplinary research teams with emerging concerns and the necessary funding it takes to study them. An executive board with diverse representation guides project priorities.

Current initiatives include developing new food processing and packaging technologies to better preserve flavor and nutrition, discovering uses for agricultural waste that reduce the need for field burning and the creation of a mobile water quality testing vehicle. A new effort involves identifying functional foods - dietary options that can reduce the onset and progression of chronic disease.

CIFAR also helps with short-term issues. Its most pressing task is supporting the food processing industry during California’s energy crisis, since disruptions in service due to blackouts creates the potential for pathogen growth.

“We’re a dynamic and response-oriented organization. Our motto is just do it,” says Shoemaker.

This overview shows some of the diverse ways the college is looking at food issues, from cell biology to farm operations to processing concerns to human nutrition. Exploring connections between foods and health all along this continuum and from many different perspectives are important aspects of CA&ES research efforts. This comprehensive approach will continue to yield advances in the knowledge about and the quality of what we eat.

**Find Out More...**

Use these helpful Web sites and e-mail addresses to find out more about the people and initiatives included in this article.

- **Aquaculture**
  - Raul Piedrahita
    - rpiedrahita@ucdavis.edu
  - Doug Conklin
    - deconklin@ucdavis.edu
  - The Bennett Laboratory
    - http://veghome.ucdavis.edu/faculty/bennett/lab

- **California Institute of Food and Agricultural Research**
  - http://cifar.ucdavis.edu

- **College of Agricultural and Environmental Sciences**
  - http://www.aes.ucdavis.edu

- **Foot and Mouth Disease**
  - Lovell Jarvis
    - jarvis@agdean.ucdavis.edu

- **Long-Term Research on Agricultural Systems Project**
  - http://ltras.ucdavis.edu

- **Nutrition**
  - http://www.nutrition.gov

- **Postharvest Technology Research and Information Center**
  - http://postharvest.ucdavis.edu

- **UC Davis**
  - http://www.ucdavis.edu

- **Western Region Pest Management Center**
  - http://www.wrpmc.ucdavis.edu
Who’s Who? Who’s New?

After 33 years on campus, Sue Torguson joined the CA&ES Dean’s Office as assistant dean, Academic and Staff Personnel. During her career, she has worked in the Department of Agronomy and Range Science, the Veterinary Medicine Teaching Hospital and the College of Engineering. She sees her job as two-fold: ensuring that academic and staff personnel programs and issues are handled appropriately and that the college is successful in recruiting and retaining a diverse staff and faculty population.

“I love this work and am excited about this new administrative role,” Torguson said.

Torguson’s interests and experience lie in developing staff teams and creating positive working environments for faculty, staff and students. “Department chairs and managers need and deserve support and guidance. I want them to be successful,” she explained.

Torguson wants to build a unit that is responsive. “Our primary responsibility is to department chairs and managers,” she said. “We serve the needs of everyone in the college. I’m interested in what is happening on staff teams and in work groups.”

For 15 years, Torguson has taught Staff Development in areas of staff recruitment and selection. She has facilitated classes in conflict management and served as an assessor for the Management Skills Assessment Program. She served as steering committee member of the Academic Business Officers Group and chair of the UC Davis Administrative Management Group.

Professor Edward Caswell-Chen was named chair of the Department of Nematology effective July 1, 2001. He came to UC Davis in 1989 as an assistant professor in the Department of Nematology - following four years as assistant professor of plant pathology at the University of Hawaii. He is vice-chair and major adviser for the Graduate Group in Ecology. Caswell-Chen attended Michigan State University and UC Riverside.

“The Department of Nematology is recognized internationally,” Caswell-Chen said. “The research in our department addresses important and intriguing questions in nematode ecology and evolutionary biology and in the management of nematode parasites of plants, animals and humans. I’m excited to be working with our outstanding faculty in maintaining and improving our teaching, research and extension activities.”

Caswell-Chen’s own research addresses how nematode life history attributes influence the population interactions between nematode parasites and their hosts, and how hosts exert selection pressure on parasite populations.

“From the applied perspective, we study integrated pest management of nematode parasites of ornamental and agricultural plants, with the goal of developing new approaches to nematode management,” Caswell-Chen said.

“We also are interested in the life history attributes of Caenorhabditis elegans relative to aging. The nematode serves as a model system for gaining insights into aging in other organisms, including humans,” he said.

Professor James Chalfant was named chair of the Department of Agricultural and Resource Economics (ARE) effective July 1, 2001. He came to UC Davis in 1992.

“I’m very proud of our department,” Chalfant said. “It is in good shape, and I’ll simply help keep a lot of positive momentum going.”

The department’s mission emphasizes three main areas of economics: agricultural, international development and natural resources/environment. “We have an outstanding graduate program in all three fields and a thriving undergraduate program,” Chalfant said. “I want ARE at UC Davis to be the automatic choice for top entering Ph.D. students and the first place that industry decisionmakers and government policymakers look for applied economic expertise on any topic relating to our mission.”

Chalfant says that this is a very exciting time to deal with economic issues. In agricultural economics, there are increasing concerns about food safety, genetically modified foods and food supply, a growing organic sector, significant technological change and increased concentration in the marketing sector.

In the resources/environment area, concerns range from global warming to regulation of fisheries, management of ocean resources and regulation of agricultural chemicals, such as methyl bromide. In the development field, concerns include the globalization of markets and the environment.

Chalfant’s area of research is the demand for food, focusing primarily on advertising and promotion.
Professor James Wolpert will continue to serve as chair of the Department of Viticulture and Enology, a position he has held since July 1, 1996.

Wolpert came to UC Davis in 1983 on a post-doctoral appointment in the Department of Pomology, working on production problems of pistachios. He joined V&E in 1985 as a Cooperative Extension specialist with responsibility for winegrapes in California’s northern and coastal regions and the Sierra foothills.

“I am honored to lead such a talented and dedicated group of faculty,” Wolpert said. “I will do everything I can to ensure their success.”

As chair, Wolpert has worked to garner outside resources that enable the department to purchase equipment for the winery, make field trips to industry locations and participate in exchange programs with wine-producing regions around the world.

Wolpert explained that his goals and his challenges as department chair are the same – facilities. “We have great faculty and staff who deliver our teaching, research and outreach programs,” he said. “I will do everything I can to ensure their success.”

As a researcher, Wolpert primarily evaluates planting materials that growers and wineries use to start new vineyards.

Professor Heiner Lieth was named chair of the Department of Environmental Horticulture in July. “I am honored to be selected by my colleagues and Dean Van Alfen for this position,” he said. “I look forward to leading this department.”

Lieth came to UC Davis in 1984 as a crop ecologist. He specializes in greenhouse and nursery production and currently chairs the DANR Floriculture and Nursery Workgroup, providing the opportunity for campus and statewide leadership in environmental horticulture.

“The department has had a dramatic reduction in faculty, staff and facilities over the past decade,” Lieth said, “while the need in California for information and technologies has increased. My goal is to reinvigorate the department and reinforce its outreach mission.” The department has identified a specific focus to deal with environmental impacts and develop horticultural methods to solve environmental problems. This includes developing best management practices for greenhouse and nursery growers, as well as developing techniques for landscapers and homeowners in managing their plantings.

Lieth’s research is in crop ecology for greenhouse and nursery crops. He focuses on cut-flower rose production and also works with greenhouse environment control automation and automated irrigation control.

As part of his extension appointment, Lieth works with growers and advisors throughout California to solve problems and implement optimal greenhouse and nursery production practices.

Dean Neal Van Alfen named Rhoda McKnight to the newly created position of director of communications as part of the college’s restructuring of communications, development, outreach and relations activities. She assumed her duties in January 2001.

McKnight came to UC Davis from the private sector in 1996. Prior to this appointment, she served as publications manager for the college.

McKnight is a member of the College Advancement Team, an organized effort of effective communications, strategic relationship building and broad-based fundraising. She is responsible for print and electronic communications for the college, including CA&ES Currents, the faculty newsletter; CA&ES Outlook, the college’s alumni magazine; and the Web site, www.aes.ucdavis.edu.

As a writer and graphic designer, McKnight coordinates the design and production of identity, promotional and educational materials for the Dean’s Office and oversees efforts to catalog thousands of images collected for an electronic photo library.

“My areas of responsibility include editorial and graphic guidelines; strategic communications; design; and News Service and Web communications,” McKnight said. “That means writing remarks for commencement, editing articles for department newsletters, taking photos of new department chairs and working with the media. My job is to support the vision of the dean and priorities identified in the college’s Academic Plan. This is an exciting time for the college, and I am happy to be a part of our expanded communication efforts.”
College Highlighted on "Morning Edition"

In a nine-minute segment on National Public Radio’s “Morning Edition” on May 23, 2001, broadcast journalist Ina Jaffe told the nation about the college and some of our research with strawberries, tomatoes and grapes. The story was broadcast at 6:40 and 8:40 a.m.

Jaffe interviewed Andrew Walker, professor, and David Mills, assistant professor, of the Department of Viticulture and Enology; Professor Doug Shaw of the Department of Plant Pathology; Professor David Gilchrist of the Department of Plant Pathology and associate director of the Center for Engineering Plants for Resistance Against Pathogens; and Professor Sean Swezey, director of CEPRAP.


Select “Morning Edition.”
Select “Archives.”
Type in May 23.
For a transcript of the story, contact Donna Gutierrez, 530/754-8961 or djgutierrez@ucdavis.edu.

Rhoda McKnight
Director of Communications
530/752-9328
rjmcknight@ucdavis.edu
We’re Making a Difference!

The College of Agricultural and Environmental Sciences partnered with UC Davis Public Communications to develop a poster campaign that highlights the efforts and successes of the college and the campus. Four CA&ES posters and three UC Davis posters now rotate among Terminals A and B of the Sacramento International Airport. The campaign began in May.

“We’re making a difference” is the overall theme of the college’s campaign. Research examples highlight the impact CA&ES is having on agricultural, environmental and human issues at local, regional, national and international levels.

The 4’ x 8’ full-color, backlit displays will help deliver the college’s primary messages to millions of airport visitors each year. The college’s four images - representing wine, water, agriculture and nutrition - were selected from 35 suggestions because they reflect familiar Central Valley issues.

For more information about these posters, contact College Advancement Team member Margarita Camarena, 530/754-9173; mlcamarena@ucdavis.edu.
Can you imagine leaving home at age 13 and returning unannounced at age 25 to see your mom, who - when she sees you - thinks you are a stranger?

Can you imagine leaving your young wife to travel 3,000 miles for your education and professional destiny and reuniting 13 years later - and then living together happily for another 40 years?

Can you imagine a young man so thankful to be able to eat, work, learn and succeed that later in life he interrupts an extended business trip to fly across the United States for a one-hour ceremony to honor his “old professor?”

On May 4, 2001, the Department of Food Science and Technology dedicated the Bor S. Luh Food Lab on the UC Davis campus. Martin Yan (B.S., ’73; M.S., ’77, Food Science), TV host of “Yan Can Cook,” flew from New York to California to be the master of ceremonies. He flew back to New York the next day, although his home is in California.

In China, the term “old” is one of deep respect. Martin likes to refer to his “old professors” whenever he talks about his days as a student in the department. Dr. Luh was also his mentor and friend. You see, Bor and Bai Luh brought homesick foreign students into their home for meals and made sure they were safe and welcome in this land so far from home. Martin left China as a child and returned to his surprised mom with his food science degrees.

Several years ago, Bor and I walked in the UC Davis Arboretum for awhile and then sat on a bench in the shade. He told me that he and Bai were married in 1940. Bor was able to come to the United States to study in 1946. Bai could not join him. He earned his M.S. and Ph.D. degrees in food science and food chemistry at UC Berkeley in 1948 and 1952, respectively. He joined the UC Davis food science and technology faculty as a food scientist and lecturer in 1952. Bai was permitted to come to the U.S. in 1959.

That day in the arboretum, Bor talked very modestly about his career. Other faculty members told me he would be this way. He asked about my responsibilities, and I remember his remark. “If you have a project, they will give,” he said.

On another occasion, we met in the Memorial Union. I bought him a cup of tea. He thanked me several times and said “nice tea” several times during our visit.

My sense is that Bor thanked everybody a lot and complimented everybody a lot. My day brightened up whenever I saw him. I’ll bet most folks felt that way.

It is through Bor and Bai’s generosity that we were able to build the Bor S. Luh Food Lab here on campus. That must have been the project he was talking about in the arboretum.

Note:
I wrote the first four paragraphs of this article in May and almost threw them away. I re-read it recently and decided to use it for my development article for this issue of CA&ES Outlook because we are focusing on foods for health.

While working on this article, I learned that Bor died shortly after attending his grandson’s high school graduation ceremony in Hawaii. He was 85.

[Editor’s Note: See “In Memoriam,” page 33]
What’s New in Development?

- The Joseph C. Grossman Foundation offered a one-year fellowship for a master’s student in the UC Davis Department of Agricultural and Resource Economics. Ana Maria Rodriguez Bucheli of Ecuador is the 2001-02 recipient of the fellowship.

  The Foundation provides tuition for a non-resident student with focus on international economic development who - through the admissions process - displays a strong interest in building or further developing a career in third world development. Joseph C. Grossman graduated from UC Davis’ Master’s Program in Agricultural and Resource Economics in 1983.

- The George W. Ushijima Memorial Foundation recently contributed $5,000 to help recruit outstanding students to the College of Agricultural and Environmental Sciences. The foundation was established upon George’s death in 1986 by friends and associates who wanted to recognize his leadership in wholesale produce distribution and as a produce broker in Northern California.

- Peter G. Pfendler of Pfendler Ranches in Petaluma, California, recently donated $100,000 to Dr. Gary Anderson’s research program in the Department of Animal Science. Pfendler supports Anderson’s research on developing beef cattle cloning procedures. He made the gift in memory and honor of his late father, David C. Pfendler.

  Dave Pfendler joined the Office of Resident Instruction in Agriculture at Purdue University in 1939. From 1968 until his retirement in 1974, he was associate dean of agriculture and associate director of resident instruction. According to his son, Dave Pfendler represented “Purdue agriculture” to more people than any one person in the school’s history. He was a founder of the National Agricultural Alumni and Development Association.

  Peter Pfendler comes by his interest in beef cattle breeding quite naturally. Dave Pfendler received his B.S. and M.S. in animal science from Purdue University. He raised black Angus cattle and was very active in Angus associations throughout the midwest in the 1930s. He was a pioneer in the use of artificial insemination and helped promote its use throughout the midwest. Dave Pfendler held on to five head of pure-bred Angus cows until he moved to Petaluma with Peter in 1996. Those cows were descendants from the herd he founded in the 1930s.

- On several occasions in CA&ES Outlook, we have discussed charitable remainder unitrusts as a way for donors to secure a lifetime income and income tax benefits for themselves while guaranteeing a future gift to the college. In 1975, Mr. and Mrs. Lorenzo McOmie established a charitable remainder unitrust and funded it with their agricultural land holdings.

  “Rennie” McOmie was raised on farms from Idaho to California, graduating from high school in Los Alamitos, California. He attended Fullerton Junior College – where he played football – and transferred to Stanford University, graduating in 1930. He returned to the family farm in Los Alamitos to help his father and remained there until 1945. In 1946, he married Judith Gwinn Boyle. Her father, Richard E. Boyle, owned and operated a large dry land farm near Fontana.

  Rennie and Judith built and operated a dairy farm and grew alfalfa in Artesia, California. In 1952, they relocated to Bird’s Landing along the Sacramento River. They built a large adobe house on their 2,700-acre ranch and raised sheep and grew wheat. The McOmies were keen observers of local, state and federal legislation that affected farming and ranching.

  In 1975, the McOmies established their unitrust and retired in Santa Barbara for the excellent climate and for health care. Judith died in 1984, and Rennie stayed in the family home until his death last January at age 92. He suffered from Parkinson’s disease for the last 17 years of life.

  The provisions of the unitrust call for the establishment of L.M. McOmie research funds at the University of California, Davis, and California Polytechnic State University, San Luis Obispo. “The net income of the fund received by The Regents of the University of California shall be used for the establishment, support and maintenance of research projects in the Animal Husbandry and Agronomy departments of the Davis Branch of the University of California.”

  The agricultural land holdings used to fund the unitrust were valued at over $5 million. The trustee sold the property and invested the trust assets for many years. UC Davis’ share of the trust is over $9 million - the largest gift ever to the College of Agricultural and Environmental Sciences!
Q: What can 60 transferable semester units and two years at a California community college provide to future University of California, Davis, students?

A: How about a savings of over $8,100 in tuition and fees, a solid foundation in your academic breadth requirements, and a transfer agreement that eliminates the anxiety and stress related to that "long wait" for an admissions letter.

The Transfer Opportunity Program and Transfer Admission Agreements are excellent avenues for students looking to complete a University of California education. Both programs provide students with opportunities to save monetary resources, complete coursework in a less competitive environment and create contacts on the UC campus to ease the transition to the four-year institution.

This year, the College of Agricultural and Environmental Sciences at UC Davis saw record numbers of incoming students applying for admissions. Of 5,056 applications for incoming freshmen, only 2,580 (51 percent) were admitted with an average GPA of 3.85. However, of the 1,261 transfer students who applied, 968 (77 percent) were accepted into the college.

Transfer students are held to a minimum transferable GPA of 2.8 and are required to take the following course pattern earning a C or better in each course:

- Two transferable courses (3 semester or 4-5 quarter units each) in English composition, and;
- One transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning, and;
- Four transferable college courses chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, or the physical and biological sciences.
- An additional 39 semester units or 59-quarter units of transferable electives with no more than 14 semester or 21 quarter Pass/Not Pass units taken.

Transfer applicants seeking admission to the impacted major managerial economics must complete additional subject requirements. Applicants with subject deficiencies will be admitted as pre-managerial economics majors.

Another positive aspect of the transfer route into the College of Agricultural and Environmental Sciences is the opportunity to work directly with counselors to identify course sequences and prepare students for the transition to the UC system. UC Davis currently has two programs to assist Community College students:

- The Transfer Opportunity Program (TOP) is available to students at American River, Cosumnes River, DeAnza, Foothill, Laney, Los Medrano’s, Napa Valley, Sacramento City, San Joaquin Delta, San Jose City, Santa Rosa, Sierra, Skyline, Solano, West Valley, Woodland and Yuba Community Colleges.

TOP provides support services at these campuses, including counseling information on admission and transfer requirements, academic programs, financial aid, housing, tutoring, campus life, and other services and programs.

Students can work with community college counselors to develop Transfer Admission Agreements (TAA) with UC Davis. With the exception of landscape architecture, students can guarantee their admission to a specific major one year in advance of attending. The TAA lists courses students will complete at community college, with emphasis on courses required for admission, major prerequisites and breadth requirements.

In addition to the colleges participating in the Transfer Opportunity Program, 53 California community colleges have established Transfer Admission Agreements with UC Davis.

Modesto Junior College has taken TAAs and TOP one step farther in its work with the College of Agricultural and Environmental Sciences. Students interested in transferring to UC Davis majoring in either animal science or agricultural and managerial economics can take an articulated preparatory course sequence that prepares them for upper-division UC courses and enables students to stay on a four-year graduation plan.

For more information on transfer programs to UC Davis, contact Michael Dang at 530/752-3711; Undergraduate Admissions and Outreach Services, University of California, One Shields Avenue, Davis, CA 95616-8507.

Richard Engel
Director of Student Services and Outreach
530/754-6249
rende@ucdavis.edu
CA&ES Aggie Ambassadors

The Aggie Ambassadors completed a busy 2000-01 academic year for the College of Agricultural and Environmental Sciences. Forty-six student members traveled throughout the country to share information with prospective students, industry leaders and alumni about our land-grant mission.

Aggie Ambassadors achievements include:
• Visiting 56 classrooms in 28 schools and facilitating informational presentations.
• Traveling over 16,000 miles on behalf of CA&ES to promote teaching, research and service missions.
• Conducting 31 workshops and participating in an additional 127 workshops to promote leadership development, idea sharing and university advancement.
• Representing UC Davis at the National FFA Convention in Louisville, Kentucky, and the National Agricultural Alumni and Development Association conference in Raleigh, North Carolina.
• Attending 12 college nights and recruitment activities throughout California.
• Hosting over 1,200 K-12 students on the UC Davis campus.
• Participating in 24 outreach conferences and events.
• Attending the National Agricultural Ambassadors Conference in San Luis Obispo.
• Sponsoring and coordinating the second annual You-See-UCD Day.
• Assisting the UC Davis Young Cattleman’s Organization in conducting the first annual Aggie Spring Classic Jackpot Show.

Currently, the Aggie Ambassadors represent 11 of the college’s 40 majors. A major emphasis will be placed on interdepartmental visits and on-campus agricultural and environmental literacy programs during the 2001-2002 academic year.

Outreach Highlights

CA&ES Aggie Ambassadors develop communication and leadership skills while promoting the college.

Upcoming Events for Alumni and Prospective Students

September 15, 2001
CAAA Member Appreciation Day
Pac Bell Park (Dodgers vs. Giants)

October 6, 2001
Cal Aggie Alumni Association Awards Ceremony

October 19, 2001
College of Agricultural and Environmental Sciences College Celebration and Award of Distinction Ceremony

October 20, 2001
Homecoming

October 27, 2001
UC Davis Preview Day

November 3, 2001
CA&ES Aggie Ambassador You-See-UCD Day
Academic counselor Amy Strayer of the CA&ES Dean’s Office was named Woman of the Spring Quarter by the UC Davis Women’s Resources and Research Center. She was recognized for her devotion to students and their development and success. The award is presented quarterly. Strayer was recognized at a reception in Hart Hall.

Strayer is adviser to the Prytanean Women’s Honor Society, a student organization comprised of high-achieving students interested in campus and community service. She also has led student retreats, taught Staff Development classes and facilitated diversity discussions.

“I particularly enjoy working with re-entry students who must balance outside responsibilities with academic studies,” Strayer said. “I identify with them most of all. I feel honored to be recognized for my contribution to women on campus.”

Faculty and Staff Adviser Carol Cooper of the Department of Food Science and Technology, is the recipient of the 2001 UC Davis Outstanding Staff Adviser Award, the first time a staff member received this honor. She was selected from among 65 nominees.

Cooper has worked in the department for over 25 years, serving as an adviser since the early 1990s. She received the CA&ES Walker Award for Outstanding Staff Adviser in 1997. She is active at regional and national levels in the Institute of Food Technologies. In 1996, Cooper was selected “Member of the Year” for the 1,400-member IFT Northern California section.

Colleagues say that Cooper works tirelessly to support student activities - helping to build floats for Picnic Day, providing practice questions for the College Bowl Team and working with the Student Product Development Team.

Academic counselor Joel Shriver, CA&ES Dean’s Office, received the 2001 Walker Award for Outstanding Staff Adviser. He began working in the college as a counseling assistant in 1996; he previously worked in the Office of Summer Sessions.

Shriver works with Exploratory Program students who have not selected a major, coordinates the Individual Major Program and works with transfer students to determine how much of their transfer work can be applied to various requirements at UC Davis.

“Receiving this award is a direct reflection on the excellent mentoring I’ve received here in the Dean’s Office,” Shriver said.

The award is presented in recognition of a college staff member who has provided outstanding service to students. The award is named in honor of lecturer emeritus Harry Walker, Department of Land, Air and Water Resources.
College Celebration 2001: “Our Heritage and Our Future”

Friday, October 19, 2001
5:30 p.m.
Freeborn Hall
UC Davis

Award of Distinction Ceremony
Taste-of-California Reception
Farmer’s Market

$10 per person
Reservations required
Complimentary parking

On October 19, 2001, the UC Davis College of Agricultural and Environmental Sciences will bestow the Award of Distinction at its thirteenth annual College Celebration. The event is held each year at harvest time to celebrate the advancement and accomplishments of our college and its impact on agriculture and the environment.

Treat yourself to a delightful outing with wonderful people, delicious hors d’oeuvres and excellent wines. The evening culminates with a Farmer’s Market where attendees dismantle the “welcome display” in the lobby of Freeborn Hall and take home a bag packed full of California’s richest, freshest produce and grains.

For information about this year’s College Celebration or the Award of Distinction, contact Sharon Lynch, 530/752-1602 or selynch@ucdavis.edu.

2001 College Celebration Reservation Form

Friday, October 19, 2001
Award Ceremony 5:30 p.m.; Reception Follows

Names of those attending (please print for nametags):
_______________________________________________________
_______________________________________________________
_______________________________________________________

Street Address _________________________________________
City/State/Zip _________________________________________

Telephone Daytime (____)_________________________
Evening (____)_________________________

Please reserve ___ seats @ $10 each. Total enclosed $__________

Tickets held at the door. Questions? Call 530/752-1602.
Complimentary parking is available for registered guests
in the Howard Way parking structure.

Make checks payable to “UC Regents” and return to:
College Celebration, CA&ES Deans Office, University of California,
One Shields Avenue, Davis, CA 95616-8971
Commencement 2001

Chancellor Larry N. Vanderhoef and Delaine Eastin, superintendent of public instruction, California Department of Education: commencement speaker

Joshua Jorgensen, nutrition science major: Charles Hess Community Service Award - male recipient

(Far right) Susanne Rose Cohen, community and regional development major: Mary Regan Meyer Prize recipient

(Left) Michelle Leinfelder, crop science and management major: student speaker, afternoon ceremony

(Right) Amy Elizabeth Denney, community and regional development/ Spanish major: Charles Hess Community Service Award - female recipient

Jamie Law, community and regional development major: student speaker, morning ceremony

(Left) Jamie Elizabeth McInturff, biotechnology major: College Medal recipient
Rodney Venterea, Department of Land, Air and Water Resources, received the Emil Truog Soil Science Award from the Soil Science Society of America. He was recognized as "the Ph.D. student who made an outstanding contribution to soil science in his or her Ph.D. dissertation." The award consists of a certificate and honorarium, both of which will be presented to Venterea at the group’s national meeting in Charlotte, North Carolina, in October.

Students in the laboratory of Professor John Krochta, Department of Food Science and Technology, returned from the Institute of Food Technologists (IFT) meeting in New Orleans with first and second place awards in the Food Packaging Division graduate student poster competition.

Soo-Young Lee just received a Ph.D. degree in food science. Her poster is titled “Modeling Shelf-life of Whey-protein-coated Peanuts Analyzed by Static-headspace Gas-chromatography.”

Rungsinee Sothornvit is completing her Ph.D. degree in food engineering. Her poster is titled “Oxygen Permeability and Mechanical Properties of Plasticized Beta-lactoglobulin Films.”

A third poster was presented by Daniel S. Lin. Because he is just beginning his Ph.D. work, it could not be entered in the competition. The poster is titled “Improvement of Paperboard Packaging Performance with Whey Protein Concentrate Coating.”

“This is the second consecutive year that we’ve gotten first and second place in this competition,” said Krochta. “I believe that the quantity and quality of this research points to the excellent students being attracted to dairy foods research. “By presenting these papers at IFT, we are getting important information out to the larger food industry community and giving extra attention to our research.”

In addition, CA&ES students took first and second place in the Dairy Foods Division graduate student oral presentation competition.

Lauren Franssen is working on her Ph.D. degree in food science. Her presentation is titled “Potassium Sorbate Diffusion in Whey Protein Isolate and Lipid-emulsion Films.”

Kirsten Dangaran is working on her Ph.D. degree in food science. Her presentation is titled “Whey-protein-isolate Coatings as Replacements for Shellac in the Confectionery Industry.”

Lee, who won first place in the poster competition, also presented a paper to the Sensory Division titled “Consumer Acceptance of Whey-protein-coated vs. Shellac-coated Chocolates.”

Design student Lise Jackura, Department of Environmental Design, entered her felted jacket into the 2000 International Textile and Apparel Association design competition. It was accepted and exhibited at the group’s annual conference in Cincinnati.

Kelly Steinauer, first-year M.F.A. student for textile arts and costume design, Department of Environmental Design, was awarded the 2001 Ellen Hansen Memorial Prize for “Body of Armor: Sticks and Stones.” It was developed as part of her graduate thesis project titled “Women Warrior Wear.”

“I express the vulnerability of women through abstracted costume elements that are both protective and prohibitive,” Steinauer explains. The judges specifically noted the effective dichotomy of strength and fragility evoked by Steinauer’s helmet, shoulder guards and chest plate, combining the elements of leather, sticks, tacks and rice paper.

The Ellen Hansen Prize commemorates the bravery and independence of women. It was estab-
lished in memory of the daughter of Professor Robert Hansen, UC Davis School of Veterinary Medicine, and is presented annually. Entries representing campus arts, including student work in writing, poetry, music, dance and the visual arts, are judged by a panel comprised of faculty members.

Shannon Sobec, a member of UC Davis’ varsity eight crew, was named one of the Collegiate Rowing Coaches Association’s National Rowing Scholar-Athletes of the Year. She is a landscape architecture major.

Su Yoeng Kim, a doctoral student in the Graduate Group in Human Development, was awarded the prestigious 2000-01 Psi Chi/APA Edwin B. Newman Graduate Research Award from Psi Chi, the national honor society in psychology, and the American Psychological Association. The award is presented annually to the psychology graduate student who submits the best research paper published or presented at a national, regional or state psychological association convention during the past calendar year.

Kim’s research award was based on an article published in the Journal of Family Psychology titled “Parenting Practices and Adolescent Depressive Symptoms in Chinese American Families.” Associate professor Xiaojia Ge, Department of Human and Community Development and member of the Graduate Group in Human Development, was Kim’s adviser on her research project. Ge was second author on the article.

The award, recognizing young researchers at the beginning of their professional lives, was presented at the 2001 APA/Psi Chi National Convention in San Francisco.

Kim is one of 12 doctoral students named by UC Davis to receive a pre-dissertation fellowship for the 2001-02 academic year.

Human development major Kameelah Elarms is one of five UC Davis student athletes on the 2001 Verizon Academic All-District VIII Spring At-large College Division Track Team.

During the 2001 season, Elarms broke UC Davis records in the indoor 400 and outdoor 400, as well as in the 400 hurdles. She is the 2001 CCAA champion in the 400 low hurdles and ran a leg in the Aggies’ CCAA Champion 4x400 relay team. She finished second in the 400 hurdles at the NCAA National Meet and was a member of the Aggies’ third place 4x400 relay.

Design students received several awards at the Department of Environmental Design’s 2001 commencement reception.

Design History Awards were presented to students “who demonstrate great interest and aptitude in the area of design history.” Recipients were Rene Jeremiah, Jessica Glahn and Amy Nichols.

Design Service Awards were presented to students “who have gone above and beyond...in service to the Design Program and the surrounding community.” Recipients were Christine Cook, Randy Szeto, Diana Tsai, Hang “KC” Nguyen, Emily Oldham, Cara Nelson, Ian Stedman, Jennifer Auh, Angela Yang and Leslie Bradley.

Design Department Citations were presented to “students of true distinction who have demonstrated a high caliber of academic excellence.” Recipients were Anne Spitler-Kashuba, Wanda Arnold, Kelly Ballentine, Kristina Cseuz and Larson Holgers.

The Greg Lynn Memorial Award, the Design Program’s highest honor, was received by Kelly Ballentine.

The award recognizes the lively, creative spirit, positive energy and diverse interests exemplified by late lecturer Greg Lynn who taught in the Design Program for 14 years.

UC Davis men’s and women’s cycling teams traveled to the United States Air Force Academy in Colorado Springs, Colorado, to compete against the top collegiate cyclists in the nation at the U.S. Cycling Federation National Collegiate Road Cycling Championships.

The men’s and women’s teams swept the Division I team time trial to claim National Championships. Congratulations!

The women’s team:

- Christine Alford, design; Emily Kachorek, environmental biology and management; Dawn Ahlgren, Ph.D., student, food science; and Megan McQuaid, human development.

The men’s team:

- Jeff Angermann, graduate student, agricultural and environmental chemistry; Matt Morenzoni, genetics; Joseph Karbowski, biochemistry; and Roman Kilun, political science.

Justin Jackson, a junior majoring in managerial economics, and Michelle Leinfelder, a senior majoring in crop science and management, are recipients of California Seed Association (CSA) scholarships presented each year to four California college students. The top two awards, presented to CA&ES students, were presented to Jackson and Leinfelder at the 2001 CSA convention in Santa Barbara.

According to Sue Webster, program representative for the UC Davis Seed Biotechnology Center, “The industry values these students’
achievements and commitment to agriculture. It recognizes that students such as Justin and Michelle – with strong agricultural backgrounds and a desire to promote agriculture – will strengthen the seed industry in the future.”

Jackson was recognized for his diverse background in crop production, including his FFA experiences. He grows certified safflower seed and wheat. “I look forward to applying what I’m learning here at UC Davis to the seed industry,” he said.

Leinfelder was recognized for her strong leadership skills. Raised on a family farm in Stockton, her first opportunities for leadership came through 4-H. She is an Aggie Ambassador, UC Davis cross country team and track member and serves as a student adviser to the dean of the college. “I am very appreciative of the California Seed Association for their financial assistance,” said Leinfelder. “It’s hard to believe that I’m receiving an award for doing the things I enjoy.”

Two Department of Agricultural and Resource Economics Ph.D. students recently were recognized by the American Agricultural Economics Association.

Rodrigo De Sousa received the AAAE Outstanding Thesis Award for his thesis titled “Guaymango, El Slavador: Agronomic and Economic Modeling of Soil Conservation and Agricultural Productivity in Relay-cropping Systems.” His supervising committee is comprised of Richard Howitt, professor; Douglas Larson, associate professor; and Edward Taylor, professor.

DeSousa returned home to Caracas, Venezuela, and is working as a representative in the agricultural stock market for a Venezuelan bank.


Matthew Escobar, Ph.D. candidate in the Plant Biology Graduate Group, is the recipient of the 2000-01 William E. Stuke Walnut Research Fellowship. His goal is to generate resistance to crown gall disease in the Paradox walnut rootstock.

Escobar assembled DNA constructs which may block crown gall formation in infected trees and transformed Paradox walnut somatic embryos using these constructs. His research is under the direction of Professor Abhaya Dandekar, Department of Pomology.

Annette Wszelaki, Ph.D. candidate in the Plant Biology Graduate Group, received the 2000-01 Royce S. and Pearl D. Brinthurst Research Fellowship. She has done work on high-oxygen atmospheres and has been screening potential biological controls as postharvest decay control alternatives on strawberry plants.

Once an effective organism is found, Wszelaki will begin testing combinations of controlled atmospheres, heat treatments and biological control on strawberry.

Wszelaki’s research is under the direction of CE specialist Elizabeth Mitcham, Department of Pomology.

Rodrigo Cifuentes, M.S. candidate in the Food Science Graduate Group, was presented the 2000-01 Pomology Faculty Research Fellowship. He is developing a thesis research program in the area of control of microbiological contamination of stone fruits, under the joint direction of Professor Adel Kader, Department of Pomology and CE extension specialist Trevor Suslow, of the Department of Vegetable Crops.

Cifuentes serves as chair of the Pomology Graduate Students’ Association.

The Department of Viticulture and Enology presented awards to three senior undergraduate students, recognizing “students of true distinction” who demonstrated excellence in academic performance in the department’s program.

Senior Cameron Vawter received the department’s Citation Award and a global internship created and funded by the International Wine & Food Society. The internship provides a $10,000 grant to cover travel and lodging expenses for two industry working experiences and one tour of a winemaking region.

The purpose of the internship is to “promote the knowledge and enjoyment of wines of the world by providing a talented student the chance to study the practices of grape growing and winemaking with a global perspective.”

Vawter will travel to Chile in January 2002 to work as a winemaking and cellar intern during the winegrape harvest. Afterwards, he will travel to France where he plans an extended tour of the country’s wine-producing regions. The final leg of the internship takes Vawter to Rioja, Spain, where he will work during the winegrape harvest.

Vawter, who says that he is “very excited” to begin his internship, feels that the exposure to worldwide
enological and viticultural practices will make him a better winemaker and grape grower. “Only through an experience like this will I be able to broaden my own horizons and pass on new knowledge to my peers here in the United States,” he said.

Guillermo Soto and Bryan Avila received the department’s Outstanding Performance Awards. M.F.A. graduate student Vic de la Rosa, Department of Environmental Design, was selected as a Rhode Island School of Design (RISD) President’s Scholar. Four recipients are chosen from among students offered admission to RISD’s graduate programs. De la Rosa is attending RISD this fall.

The President’s Scholars Program recognizes and supports students from groups “underrepresented in education and creative communities.” The program’s intent is to provide an impetus for students to become role models for other artists, eventually leading to greater diversity among artists and art teachers.

VITIS? What is VITIS?

Formed in 1992, VITIS is an official viticulture and enology graduate group that organizes weekly themed wine tastings designed to enhance the wine knowledge of its participants. Tastings are held on campus, and hosts rotate weekly. Wine tastings are open to department students (age 21 and over), staff and faculty members interested in developing their “palates and sensory repertorium,” according to VITIS president Keir Keightley.

Keightley said that he joined the group because he was interested in new wines, wanted to interact with other graduate students and wanted to be more involved in the Department of Viticulture and Enology.

Approximately 25 participants blind taste six to 10 wines and follow up with a discussion. “We’re exposed to everything from the variability of certain wine types and regions to differences in varietals,” he said.

For more information, contact Keightley at www.keight@ucdavis.edu.

The College of Agricultural and Environmental Sciences awarded the 2001 John E. Kinsella Memorial Prize to Qihong Huang. The prize recognizes the college’s most outstanding graduate research dissertation.

The Kinsella Prize, named for a former CA&ES dean, acknowledges individuals who further the college’s mission to serve the public in areas of agriculture, the environment, and human health and development.

Juried works by Design Program students were on display in Walker Hall for several weeks and during Picnic Day 2001. Students from the program’s three major areas - textile arts and costume design; interior architecture; and visual communication - were judged by furniture designer Brian Donnelly.

Winners are:

Visual Communication
1st Place
Valerie Chuch
2nd Place
Sara Raffo
3rd Place
Kara Ball
Honorable Mention
Amy Bethancourt
Environmental Design
1st Place
Edda Ostertag
2nd Place
Keith Truong
3rd Place
Alex Ha
Honorable Mention
Surya Dunets
Costume/Textile
1st Place
Kelly Ballentine
2nd Place
Kristina Czeuz
3rd Place
Nicole Villa
The Lura and Norman Middleton Best-of-Show Award was presented to Daniel Villanueva.

Cash awards were presented in all categories of the Juried Student Exhibition.
Graham E. Fogg, professor of hydrogeology, Department of Land, Air and Water Resources, was selected the 2001-2002 Birdsall-Dreiss Distinguished Lecturer by the Hydrogeology Division of the Geological Society of America. Fogg is offering three Birdsall-Dreiss lectures:

- Plume Behavior in Heterogeneous Geologic Systems: Natural Attenuation, Remediation, and the Role of Diffusion
- Groundwater Vulnerability and the Meaning of Groundwater Age Dates
- A Geologic Approach to Simulation of Subsurface Hydrology

Fogg's primary areas of research are groundwater contaminant transport, and groundwater basin characterization and management.

David Block, assistant professor, Department of Viticulture and Enology, and former graduate student Sophocles Vlassides were awarded Best Enology Paper from the American Journal of Enology and Viticulture. Their paper is titled “Evaluation of Cell Concentration Profiles and Mixing in Unagitated Wine Fermentors.”

“It started out with just some basic curiosity,” recalls Block. “Since no external source of agitation is normally applied to wine fermentations, we felt that gradients of total insoluble solids and yeast cell concentrations must exist naturally as a function of depth in the fermentor. We wanted to know how these gradients affect the fermentation kinetics.”

The study revealed some thought-provoking results regarding the importance of complete rehydration of yeast and settling time prior to inoculation.

The award will be presented during the annual meeting of the American Society of Enology and Viticulture in San Diego.

Professor Harry Kaya, Department of Nematology, was presented the ESA Recognition Award in Entomology from the Entomological Society of America (ESA).

The award, presented at the group's annual meeting in Montreal, Canada, recognizes Kaya's overall contributions to entomology.

Kaya received an inscribed plaque, a trip to Switzerland to visit agricultural research facilities and commercial farming operations and complimentary registration to ESA's upcoming annual meeting in Montreal.

Kaya's primary research objective has been to understand nematode biology in order to develop methods to integrate them as fundamental biocontrol agents into insect pest management. He has established collaborative research programs in insect nematology and pathology with scientists in Turkey, Mexico, Korea, Portugal and the U.S.

Professor Robert Rice, Department of Environmental Toxicology, recently returned from Novosibirsk State University in Siberia, Russia, where he taught an undergraduate course in toxicology, gave research seminars and developed research collaborations. Rice, a Fulbright scholar, studied Russian as an undergraduate student; however, in his classroom presentations in Siberia, he relied on the assistance of a translator.

“My experience in Russia was very positive, and I particularly appreciate the efforts of my faculty host, Dr. Lyudmila Gulyaeva,” Rice said.

David Smart, Agricultural Experiment Station assistant plant physiologist, joined the Department of Viticulture and Enology as assistant professor in July. His research program focuses on rootstock physiology and nitrogen trace gas exchange between soils, plants and the atmosphere. Smart is interested in the physiological processes involved in root aging, population dynamics of roots under field conditions and root foraging behavior. His laboratory is using geochemical approaches to determine where and at what time of the season grapevine roots are foraging and nitrogen trace gas movements in the environment.

Smart received his M.S. and Ph.D. in botany from UC Davis. He worked with NASA at Utah State University and in Spain as a research scientist at the Universitat de Barcelona. His wife, Maria Jose Truco, is a plant geneticist in the Department of Vegetable Crops, breeding leaf lettuce for disease resistance. They have two daughters, ages five and two.

Donald R. Nielsen, Department of Land, Air and Water Resources, was awarded the Robert E. Horton Medal, the highest award presented in hydrology by the American Geophysical Union. He was recognized for his “outstanding contributions to the geophysical aspects of hydrology.”

Nielsen came to campus in 1958. A professor of soil and water science, he also served as executive associate dean of the college. Although retired, he continues his research on soil physics, soil water movement, flow through porous media, miscible displacement and...
leaching phenomena.

Nielsen travels throughout the world and has received numerous honors, including the King Hubbert Award in Groundwater Hydrology.

Professor Joseph Cech, Jr., Department of Wildlife, Fish and Conservation Biology, is the recipient of the 2001 UC Davis Prize for Undergraduate Teaching and Scholarly Achievement. The prize, awarded annually by the UC Davis Foundation, includes a $30,000 cash award, believed to be the largest of its kind in the nation.

Professor Gary Anderson, chair of the Department of Animal Science, received the award in 1997.

“It certainly was an honor to be selected for this prestigious award,” said Cech. “Having this sort of recognition for teaching and scholarly activity at a major research university sends a strong message about the campus’s commitment to teaching and, indirectly, to the linking of students - including undergraduates - to the discovery process. This is certainly true in my case.

“There are many graduate and undergraduate students, postdoctoral and postgraduate researchers and colleagues at UC Davis and at other campuses who have collaborated with me on various fish-related research projects. Without their support, I could not have been considered for this wonderful award.”

Cech came to UC Davis in 1975. He is known internationally for his research on the physiological ecology of fishes. He recently received a $1.5 million grant from CALFED to study the effects of fish screens on threatened species and to determine the population status of the native green sturgeon.

Cech was elected a fellow of the American Association for the Advancement of Science in 1997.

Department of Environmental Design Professor Gyongy Laky’s one-person exhibition, “Gyongy Laky,” recently was featured at the MX Espai Gallery in Barcelona, Spain. Her sculptural work incorporates orchard prunings, wire, nails and screws.

Laky’s sculptures also have been part of “Crossover,” an exhibition of basketry and sculpture represented by three American and three British artists. When the exhibition leaves its initial venue in Bury St. Edmunds, Suffolk, England, it will travel through the United Kingdom.

Consumer food marketing specialist Christine Bruhn, Department of Food Science and Technology, was selected a fellow of the Institute of Food Science and Technology (IFST), United Kingdom. Bruhn was selected for her work to better understand consumer attitudes and perceptions and for her leadership in communicating food safety and quality issues to the public.

The senior grade of IFST membership requires 10 years appropriate experience plus substantial contribution to food science/technology or holding a position of seniority/authority in the profession.

Cooperative Extension rangeland management specialist Melvin George, Department of Agronomy and Range Science, was presented a Professional Achievement Award by the College of Natural Resources Alumni Association and Utah State University for “professional achievements and dedicated stewardship of rangeland resources.”

The award, presented at the Society for Range Management’s annual meeting in Kona, Hawaii, specifically cited Georges extension education and research program in grazing management and rangeland water quality, foreign consulting activities and professional service.

George’s research focuses on range and pasture improvement, grazing management and rangeland water quality; rangeland management practices; and ranch planning.

Miguel Marino, professor of hydrologic sciences and civil and environmental engineering, Department of Land, Air and Water Resources, was elected a fellow of the American Geophysical Union (AGU) for “fundamental and outstanding contributions to the theory and practice of groundwater hydrology and water resources management.” The fellowship is awarded to scientists who have attained acknowledged eminence in one or more branches of geophysics.

Marino’s research interest is groundwater modeling, contamination and management; water resource planning and management; conjunctive use of surface water and groundwater; hydrologic systems analysis; and irrigation management.

Professor Susan Harrison, Department of Environmental Science and Policy, and Professor Kevin Rice, Department of Agronomy and Range Science, are participating in an extensive planning effort underway by leading UC environmental field scientists and staffs at the UC Berkeley, Davis, Santa Barbara and Santa Cruz campuses. A framework is being developed for long-term research, monitoring and training programs to restore and manage California’s threatened coastal-oak ecosystems.

An interdisciplinary team of experts will assess the current state of scientific knowledge of California foothill woodland and grassland ecosystems and identify suitable sites where the programs can be conducted over the next decade.

More than 3 million acres of California’s oak woodlands and grassland ecosystems have been identified as being at risk. Studies show that even on undeveloped lands, many oak species are failing to reproduce. In many areas of coastal California, it is becoming increasingly difficult to find blue oaks and valley oaks less than 75 years old.
of Entomology, was elected president of the International Organization for Biological Control (IOBC). He will serve for eight years, four as president and four as past-president. IOBC, headquartered in Montpellier, France, is the major professional organization for biological-control workers.

Ehler's research interests include theory and practice of biological control, and ecology and management of insects and mites in natural, agricultural and urban environments. Current research projects include biological control of beet armyworm on sugarbeet, obscure scale on oaks and stink bugs on tomato.

Stephen Russell, 4-H youth development specialist, Department of Human and Community Development, was presented the William T. Grant Foundation Faculty Scholars Award. It will support his research project titled “Adolescent Sexual Orientation, Health and Competence.”

The award is presented annually to six post-doctoral, pre-tenure scholars from diverse disciplines. It encourages research “that deepens and broadens the knowledge base in areas that contribute to creating a society that values young people ages 8 through 25 and that helps them reach their potential.”

Russell’s work will provide the first comprehensive, nationally representative study of adolescent sexual orientation and adolescent health and competence. Attention will focus on health risks and the development of competence. Russell will examine the role of families, schools, peers and emotional health in promoting risk or resilience.

“Understanding the paradox of risk and resilience in the lives of children and youth and the developmental concerns of minority populations supports the missions and goals of the college, the Division of Agriculture and Natural Resources and 4-H youth development,” Russell said. “This project will build a research base that benefits outreach for California youth, families, educators and youth development professionals.”

The Costume Society of America announced at its annual national symposium in Providence, Rhode Island, that UC Davis lecturer Jo Ann Stabb, Department of Environmental Design, was named to its Scholars’ Roundtable. Stabb was recognized for her pioneering work in design and published research on the American Wearable Art Movement.

The society’s goal is to advance the global understanding of all aspects of dress and appearance. Members are expected to stimulate interest in costume scholarship and help establish and exemplify high standards for reporting scholarly activity.

Stabb currently is working on a project in wearable art titled “The Icon Series.” She uses mixed media to interpret traditional costumes from different cultures. In one piece, she incorporated an old Chinese checkerboard pattern - along with colored foils - into the traditional Chinese dragon robe. She incorporates screening, plastics and metal in her creations.

Professor Paul Singh, Department of Biological and Agricultural Engineering and Department of Food Science and Technology, was elected a fellow of the International Academy of Food Science and Technology. He was honored at the 11th World Congress of Food Science and Technology in Seoul, South Korea.

Singh studies heat and mass transfer in foods during processing. His research involves developing predictive models of selected food processes based on the physical and biochemical processes occurring in foods. Predictive models of the frying process have been developed to minimize oil uptake while maintaining desirable textural properties of fried foods.

Separate studies involve contact-heating process, such as grilling hamburger patties. Predictive models have been developed to improve the industrial grill design and develop cooking processes that assure a safe product without overcooking.

Singh also studies the freezing process used in the frozen food industry. Computer-aided predictive models have been developed to predict freezing times for a wide variety of foods. These models are widely used in the industry for designing processes and freezing equipment.

Lecturer Kathleen Church Plummer, Department of Environmental Design, was invited by the architectural firm restoring the Hollywood Bowl to make a presentation to several members of the Los Angeles County Board of Supervisors and the Los Angeles Philharmonic Orchestra on the defining elements of the Streamline Moderne style. Plummer pioneered the definition of this style in her 1968 master’s thesis.

“I’m gratified to see the preservation of monuments becoming widespread,” said Plummer, “especially in my hometown of Los Angeles.”

Plummer recently co-edited a book of scholarly essays by several internationally recognized science fiction writers and scholars. Unearthly Visions: Approaches to Science Fiction and Fantasy Art is scheduled for publication in 2002.

Two faculty members from the college’s Department of Viticulture and Enology were named endowed chairs this year - Andrew Walker, the Louis P. Martini Endowed Chair in Viticulture, and James Wolpert, the Marvin Sands Endowed Chair in Viticulture and Enology.

Walker is an internationally known grape geneticist whose research involves the development
of rootstocks and studying the genetic basis of resistance to soil-borne pests. Walker, who has been breeding grapes on the UC Davis campus since 1989, is also working to breed new grape varieties with resistance to Pierce’s disease.

The Martini chair honors the memory of Louis Peter Martini, the pioneer winemaker who studied at UC Berkeley.

Wolpert, who serves as department chair, is the only wine grape Cooperative Extension specialist in Northern California. As chair, he has overseen development of a departmental strategic plan, the kick-off of a fund-raising campaign and creation of a board of visitors.

The Sands chair honors the memory of Marvin Sands, founder of Canandaigua (now known as Constellation Brands), a beverage industry leader.

Michael Singer, professor of soil science and chair of the Department of Land, Air and Water Resources, was elected president of the Soil Science Society of America (SSSA), a member of the International Union of Soil Science. Singer takes office as president-elect in October, becomes president in 2002 and will serve as past-president in 2003.

The society, with a world-wide membership of 5,500, includes academic scientists and teachers at two- and four-year institutions, federal and state employees and private soil science practitioners/consultants.

Singer follows in the footsteps of Donald Nielsen, LAW R professor emeritus, who was SSSA president several years ago.

J.W. (Jim) Biggar, Department of Land, Air and Water Resources, is recipient of the 2001 Soil Science Distinguished Service Award presented by the Soil Science Society of America (SSSA). He was recognized for distinguished and outstanding service to soil science, based on contributions throughout his career.

Biggar is professor of water science and water scientist emeritus. His research interests have focused on water and soil chemistry, physiochemical processes during transient and steady flow conditions in soil; soil salinity and land reclamation; pesticide-soil interactions; spatial properties of crops and soils; soil productivity analysis; and infiltration processes of surface water quality analyses of surface and groundwater.

SSSA members eligible for this award must have 25 years or more of active membership and have ceased full-time professional employment. The award is presented to no more than three individuals each year.

Don Crosby, professor emeritus, Department of Environmental Toxicology, was awarded the International Award for Research in Agrochemicals at the 221st national meeting of the American Chemical Society in San Diego. The award recognized "his creative research on pathways of transformation of pesticides in the environment, emphasizing chemical and photochemical pathways."

A day-and-a-half symposium titled "Environmental Fate of Agrochemicals" was held to honor Crosby. James Seiber, director of the USDA Western Regional Research Center and professor emeritus in the Department of Environmental Toxicology, and two of Crosby’s former students chaired the symposium. Featured speakers were colleagues who acknowledged Crosby’s impact on their careers and graduates from Crosby’s laboratory who have gone on to successful careers in research.
Center of Excellence
Susan Ustin, Department of Land, Air and Water Resources, is associate director of the California Space Institute (CalSpace), a multi-campus research unit of the University of California, and director of the new UC Davis CalSpace Center of Excellence on natural resources, agriculture and environmental remote sensing. The center focuses on research and outreach using remote sensing technologies and applications for environmental sciences.

The center includes specialists in the application of remote sensing to agriculture, geology, hydrology, soils and climate. Members come from all colleges on campus to pursue questions focused on how the environment responds to natural- and human-induced changes using cutting-edge tools, including the most advanced geospatial information technologies.

CalSpace focuses on the application of geospatial information technologies to such topics as:
• Spatial and temporal patterns and processes such as disturbance regimes, biogeochemistry and ecosystem change;
• Precision agriculture and irrigation management;
• Impacts for air pollution on ecosystems;
• Integrated watershed research;
• Effects of climate change on agriculture and natural ecosystems.

The center’s goals are to foster advances in the application of these core technologies; increase the speed and effectiveness of technology transfer to industry that enhances the economic effectiveness of California; provide improved education and outreach in space technology and related applications; and support use of geospatial technology by 50 faculty, extension and professional research scientists campuswide.

The CalSpace Center is co-located with the Center for Spatial Technologies and Remote Sensing (CSTARS), a state-of-the-art facility for analysis and interpretation of remotely sensed images, applications of geographic information systems and landscape modeling of vegetation, hydrology and climatology. CSTARS makes available software, classes, tutorials and other resources for use with geospatial technology. It houses the satellite receiving stations for the polar orbiting weather satellite and the geostationary weather satellite, providing real-time weather data for research.

CalSpace collaborates with and compliments research conducted in the Center for Image Processing and Intensive Computing, a computer graphics facility for information technologies with an emphasis on visualization and analysis of scientific data, and the Information Center for the Environment (ICE). ICE is a cooperative geographic information system (GIS) facility supporting interdisciplinary environmental projects, with an emphasis on spatial databases. Together, these centers provide computing and software resources to faculty and students for a wide range of environmental applications.

Going the Distance
For those interested in honing their wine production skills but stymied by a hectic schedule or who live too far from Davis, a new Wine Production for Distance Learners class is now offered through CalSpace activities and events, and an Arboretum map and samples of plants in bloom encourage people to move beyond the terrace to explore our collections,” explains director Kathleen Socolofsky. “The Arboretum’s 65 years of experience, the expertise of our horticultural staff and UC Davis’ cutting-edge research have been instrumental in developing this exciting, new educational resource for Central Valley gardeners.”

For more information, call 530/752-4880 or check the Arboretum’s Web site at http://arboretum.ucdavis.edu.
University Extension. Taught by Professor and Amerine Chair Linda Bisson, Department of Viticulture and Enology. The course is closely based on her upper-division course, VEN124.

With a personal computer, Internet and e-mail access, students can take the entire course online, including supporting materials, quizzes and tests. In addition to readings, lab reports and exercises, students are required to design a research project for the class.

“While taking this class, students are monitored by a scientist and have the ability to bounce ideas off me and other students. Their research is more effective this way,” Bisson said.

“This is a great way to extend our mission to educate,” Bisson continued. “And it is a practical method, because we’re presenting the same lecture material as the campus course. The class is limited to 40 students to ensure student/instructor interaction.”

The department recommends that applicants have completed college-level chemistry and biology and have winery experience, or the equivalent.

“Linda makes you think practically about the problems and solutions in the real world of wine making,” said student Jonathan Quilter of Shamrock Vineyard in Waldo, Ohio.

For more information, check www.universityextension.ucdavis.edu/winemaking or call 530/757-8899.

Graphic Landscapes
Professor Mark Francis, director of the Center for Design Research, and lecturer Stephen McNiel of the Department of Environmental Design represent UC Davis as participants in a collaborative project involving several U.S. universities to develop an online database of digital images for use in creating new instructional materials. The Landscape Architecture Image Resource Project database is maintained at http://www.lair.umd.edu. It is hosted by the University of Maryland.

Other participating institutions include Cornell University, University of Georgia, University of Oregon and Virginia Polytechnic Institute and State University.

The site has been designed to foster active, collaborative learning and encourage community building across a variety of campuses serving landscape architecture education. With access to a variety of instructional materials and technologies, faculty and students from around the world will develop their own multimedia presentations that may integrate text, images, sound, video and animation.

A Higher Education Challenge Grant from the Cooperative State Research, Education, and Extension Service of USDA supported development of the site. Matching funds were provided by the colleges and departments of the participating landscape architecture programs.

The new UC Davis Swine Teaching, Research and Outreach Center was dedicated at a reception hosted by the Department of Animal Science. It’s located on Straloch Road, near University Airport. According to department chair Gary Anderson, “It is a state-of-the-art facility that is long overdue.”

“Swine teaching, research and outreach have a long history at UC Davis,” Anderson explained. “This vermin-proof facility provides uniformity in environmental conditions, improved animal welfare, reduced labor for husbandry, as well as areas for outreach meetings, classrooms for animal laboratories and quarters for resident undergraduate animal caretakers.”

Relocation to this new environment permitted new genetic stock and an opportunity to break the cycle with pathogens endemic in the previous location.

The center includes 10,000 square feet indoors. Farrowing and nursery pens house up to 20 sows and litters and 20 weaned litters under biosecure conditions. Outdoor roof-covered areas include breeding/gestation pens and growing/finishing pens, plus an outside service area.

Anderson welcomed department members and guests to the open house and ribbon-cutting ceremony. The ‘cutting of the ribbon’ was directed by provost and executive vice-chancellor Robert Grey (left) and Neal Van Alfen, dean of the College of Agricultural and Environmental Sciences. Kent Parker, animal science facility manager, and Al Medvitz, chair of the Animal Science Development Board, also participated in opening ceremonies. A tour followed the program and reception.
A Taxing Issue
Hoy Carman, professor, Department of Agricultural and Resource Economics, notes that California has one of the highest sales tax rates on agricultural machinery in the nation. Of the 45 states that collect sales tax, 33 exempt new agricultural machinery from sales tax. Of the remaining 12 states that do tax agricultural machinery sales, eight do so at reduced rates, with six states reducing rates by 50 percent or more.

California is the only state that levies sales tax on the gross amount of the equipment sales price, even when a farmer is trading in an old piece of machinery on the purchase.

Carman suggests that bringing California tax policies on agricultural machinery in line with other states would increase the competitive strength of the state's farmers and boost sales by California agricultural machinery dealers.

[Editor's Note: The July 27, 2001, issue of The Capital Press reported that state legislators approved the states' budget bill, which includes a hefty tax-relief package for the agricultural industry. The bill would provide tax relief on farm machinery and exemptions on sales tax for the agricultural industry.]

Alien Fishes?
Studies from the laboratory of Professor Peter Moyle, Department of Wildlife, Fish and Conservation Biology, demonstrate that within California, homogenization of the freshwater fish fauna is occurring rapidly. Homogenization is the phenomenon of the plants and animals in regions around the world with similar climate becoming increasingly similar to one another as alien species adapted to human activity invade and as native species become rare or extinct.

Moyle has generated a large database on the distribution and status of California's native and alien fishes. His book is being published this fall.

Poultry expert Francine Bradley, Department of Animal Science, was hired by the cities of Rancho Palos Verdes and Palos Verdes Estates, California, to help handle their peafowl dilemmas. Residents complained that even though the birds are photogenic, they screech all night, leave endless deposits of droppings and denude local plants.

Peahens (the females) and peacocks (the males) arrived on the Palos Verdes Peninsula about 75 years ago as a gift to a bird lover. The peafowl population has exploded, and neighbors are passionate about how to handle the problem. Some say: "Eradicate them!" Others say: "It's a treat. I feel like I'm in a tropical jungle!"

Bradley and avian sciences undergraduate student Claire Gallagher first spent time in both cities identifying sites with large concentrations of the birds. Homeowners volunteered to have large cages set up in their yards. The plan was for the birds to become accustomed to the cages, complete with food and water provided by the homeowners.

"Birds were enticed to step into the cages to feed and then could move out again," explained Bradley. Homeowners were asked to not shut the cages, even if there were many birds inside. "We didn't want to trap the birds until our entire team was there. We want to provide for the welfare of the birds."

Bradley was accompanied by graduate student Brigid McCrea, a local veterinarian, two city workers and several residents who wanted to learn how to capture the birds. Her goal was to thin the flock by humanely trapping and relocating 50 peafowl from each community. She was careful not to hurt the birds in the capturing process. In one day, 11 birds were successfully trapped. After more trapping sessions, 50 birds were trapped in Palos Verdes Estates and 20 birds in Rancho Palos Verdes.

"We've taught residents how to construct their own traps, and we help residents find adoptive homes for the birds," Bradley said. "We have people who have expressed an interest in taking the birds and who have the ability to care for them. Cable television crews shot a video of the trapping procedures and made it available to the public."

Peafowl consultants predict that the problem will grow as suburbs spread ever deeper into the countryside. Peahens can lay as many as 30 eggs a year.
Charles Bamforth, professor of malting and brewing science, Department of Food Science and Technology, knows that beer drinkers are choosy about foam on their beer. He showed over 300 beer drinkers in the United States, Germany, England and Japan photographs of glasses of beer poured with different heads of foam. Then the participants completed questionnaires on what they thought of the beers.

Most participants expected that the beer with good foam would “taste better,” even in the U.S. where beer often is drunk straight from a bottle or can. Some thought that the beer with good foam actually looked colder or was darker in color. Survey results were published in the *Journal of the Institute of Brewing*.

Bamforth, was commissioned by Blackwell to write a book on beer and health. In *Beer in the Diet*, he states that much has been written about the favorable impact on the body of moderate consumption of red wine and that beer appears to be just as beneficial in countering diseases such as coronary heart disease.

“Beer can make a substantial contribution to the diet through certain B vitamins, minerals, phytosterogens, antioxidants and, perhaps, fiber,” Bamforth writes.

According to Bamforth, it is difficult to measure the relationship between beer and nutrient intake because beers have a broad range of compositions based on raw materials and methods of production. Beers range from those produced in monasteries to those sold as “alcohol-free” products. Worldwide, most beers have an alcohol content in the range of 3 to 6 percent.

“Beer is at least on a par with wine for the potential benefits it may confer on the body when taken in moderation,” writes Bamforth. “There is a need for more case-control studies to fully evaluate the favorable aspects of beer drinking.”
The recent DDT case is the second largest handled to date by the U.S. Department of Justice. The 1989 Exxon Valdez spill is the largest case.

**Water Ways**

Hydrologist and assistant professor Greg Pasternack, Department of Land, Air and Water Resources, grew up near Washington, D.C. where kayaking was his passion. Today, he still loves the water, but he doesn't have nearly as much time to pursue kayaking.

Pasternack takes his students to Putah Creek near Russell Ranch to teach the basics of river flow. Students observe the creek's velocity, erosion and discharge and watch it change from season to season.

Pasternack's research interests focus on watershed hydrology and geomorphology. He is working with the East Bay Municipal Utility District's Comanche Dam to design a Mokelumne River channel allowing for the best salmon habitat.

**What About Intellectual Property?**

An industry/academia/international development roundtable workshop titled “Intellectual Property Clearinghouse Mechanisms for Agriculture” was held in Berkeley, California. Over 90 participants from a variety of universities, companies and U.S. government agencies attended.

The workshop was organized because of the perceived underde-velopment and underutilization of new agricultural technologies. Another factor was the continuing concern of researchers at universities and public sector research institutions - both in the U.S. and in developing countries - regarding their lack of access and limited capacity to commercialize new technologies because of intellectual property considerations.

The meeting was made possible by financial support from the Giannini Foundation, the Farm Foundation and the UC Division of Agriculture and Natural Resources.

A summary of workshop proceedings concludes that there are three main obstacles to further research, development and application of appropriate and beneficial biotechnologies: restricted access to intellectual property, consumers' lack of acceptance and uncertain government regulation.

For information, contact the Center for Sustainable Resource Development, 510/643-4200; csrd@nature.Berkeley.edu.

On the UC Davis campus, contact Alan Bennett, professor, Department of Vegetable Crops, 530/752-1411; abbennett@ucdavis.edu

**Oh, Rats!**

The Cosumnes River Preserve is an ideal place for Central Valley songbirds to raise their young. Wildlife biologists Andrew Englis and Desley Whisson, Department of Wildlife, Fish and Conservation Biology, placed imitation nests in the reserve and set up surveillance cameras to find what animals have been eating songbird eggs before they hatch. Photographs show black rats are the most frequent predator of eggs in the imitation nests.

Black rats, introduced to California during early European settlement, commonly are found in surrounding urban areas. Researchers found evidence of a huge population of rats in the preserve's Tall Forest where many species of migratory birds nest in one of the valley's few remaining remnants of riparian oak habitat.

**Parent 101**

A four-year study at UC Davis is looking at the best way to help first-time parents create happy, competent families. Professor Carol Rodning, Department of Human and Community Development, is asking whether first-time parents benefit most by receiving hand-out information or by participating in classes where they receive one-on-one guidance.

In a separate study, Rodning established that family-based intervention significantly increases the number of infants who form secure attachments with their parents.

Rodning is director of the Center for Child and Family Studies.

**A New Generation of Power**

Rice straw could be converted to usable fuel for biomass generators, says agricultural engineer Bryan Jenkins, Department of Biological and Agricultural Engineering.

Biomass generators use fuel such as wood from forest thinning, farm waste or non-recyclable paper either to generate electricity directly or to produce gas that can be used for power generation. Using untreated rice straw as fuel produces a glassy slag, requiring increased boiler maintenance and raising costs.

Jenkins' group is researching methods to remove minerals from the straw that form the slag. Leaving harvested straw in flooded rice fields allows most of these minerals to leach out.

**New Century, New Challenges**

According to emeritus professor Alex McCalla, Department of Agricultural and Resource Economics, and former director of the Agriculture and Natural Resources Department of the World Bank, world agriculture will face three major challenges in the 21st century: how to feed a growing population; how to reduce rural poverty; and how to manage the natural
According to McCalla, the consequences for the U.S. and California of meeting these challenges are substantial and positive. International trade accounts for a steadily increasing share of U.S. and California agricultural sales. Markets grow when countries grow and incomes rise. Thus, reducing rural poverty in developing countries ultimately benefits us.

McCalla explains that 40 years ago, Taiwan and South Korea were concessional markets for food giveaways; today, they are important markets. Likewise, India, China and other developing countries will become better markets when their economies perform better.

“As incomes rise, the composition of imports shifts from basic grains and bulk products toward fruits, vegetables, processed foods, specialty products and other higher value imports,” McCalla said.

Egyptian visiting scholar Ayman Ahmed is spending two years on campus studying with Professor Graham Fogg, Department of Land, Air and Water Resources. They are researching the causes and effects of rising groundwater levels on the deterioration of Egyptian antiquities, such as temples and tombs. Fogg describes the project as a “fascinating archaeological/hydrological problem.”

According to Ahmed, Pharaonic monuments represent the most valuable source of information on ancient Egypt, covering the period of approximately 3000 B.C. to 300 B.C. In addition, the Greco-Roman culture - in the course of over 1,000 years - produced and amassed a great number of monuments of great value from the points of view of architecture and interior decoration. “These monuments constitute unique and invaluable documentation of one of the world’s most outstanding cultural centers,” he said.

Ahmed explains that modern civilization has resulted in rapid social, agricultural and industrial development in Egypt. “Probably the most dangerous factors affecting the Pharaonic monuments are urbanization and agricultural development,” he said.

Present-day efforts are underway to identify the main causes of deterioration of Pharaonic monuments and to show the relation between the change in ground water conditions and damage to structures and decoration. Urbanization in the study area will be dealt with where it contributed to damage of the most valuable monuments.
Taking Stock

The Avian Genetic Resources Task Force and its recent report are good examples of collaborative efforts between the systemwide Genetic Resources Conservation Program, the Department of Animal Science, the UC Division of Agriculture and Natural Resources, educational institutions across the U.S. and the poultry industry. You can access the report at www.grcp.ucdavis.edu/publications/index.html.

The report outlines the significance of poultry genetic research resources for both agricultural and biomedical research. These resources - specialized genetic lines and stocks of chicken, quail and turkey - were built over the last 50 years, predominantly at land-grant institutions, and have undergone a rather alarming rate of loss over the last decade.

Associate professor Mary Delany, Department of Animal Science, believes that excellent resources directly contribute to excellent research. When she arrived at UC Davis in 1995, over 40 distinct stocks of inbred, congenic and developmental mutant stocks were available for research at UC Davis and provided worldwide. Financial resources were limited and there was a general philosophy to drop stocks not being used.

“It is difficult to predict when, how and by whom these stocks will be used,” Delany explains. “Who knew that UCD001 and 003, which were established in the 1950s, would become the basis for the first and most frequently used reference mapping population? This mapping population is used by every poultry genomics group on a global scale.”

Delany has been invited to present this topic at several meetings, including the National Breeder’s Roundtable, the International Plant and Animal Genome Conference and the 2000 World Poultry Conference in Montréal. She is writing a book chapter on the topic for Poultry Breeding and Technology and has been invited by the Food and Agriculture Organization (FAO) of the United Nations to write a position paper.

Delany is poultry species chair for the National Animal Germplasm Program (NAGP), which also covers beef and dairy, small ruminants, swine and aquatic species. NAGP’s goal is to develop a national response to the management of animal genetic resources.

The Avian Genetic Resources Task Force’s report was published by DANR and recently republished by Avian and Poultry Biology Reviews.
Kenneth E. Lerch (B.S., '51, Soil and Water Science; M.Ed., '81, Agricultural Education) of Woodland, California, retired after 33 years as vice president and principal engineer with Laugenour and Meikle, Civil Engineers. He was involved in the engineering profession for over 43 years, including 10 years as a hydraulic engineer with the State of California, Department of Water Resources. He specialized in irrigation, drainage, seepage and flood water management throughout the Sacramento Valley.

Today, Lerch provides engineering consulting services for the preparation of agricultural water management plans, ground water management plans, water supply, drainage and wastewater activities. He is a life member of the Consulting Engineers and Land Surveyors of California and a diplomate of the American Academy of Environmental Engineers.

Lerch is married to Barbara M. Lerch (B.S., '78, Applied Behavioral Science; M.Ed., '82, Agricultural Education), who retired following various positions with Holy Rosary Parish Church in Woodland and as a self-employed writer.

When the youngest of their seven children entered kindergarten, Barbara Lerch enrolled at UC Davis through the re-entry program. Following graduation, she worked at the Yolo Community Care Continuum, counseling mentally ill young adults in basic living skills. She returned to UC Davis in 1990 to study creative writing through University Extension.

Avon Carlson (M.Ed., '54, Agricultural Education) of San Clemente, California, retired in 1979 from the Anaheim Union High School District where he had served as an ag teacher and principal. He continues to substitute teach and assumes that he is the oldest employee in the district. “It’s such a great privilege to work with young people,” he wrote. “They are the best medicine I could take to be mentally alert and physically active.”

Carlson’s district superintendent feels that senior citizens have a lot to offer. When students study the Great Depression, World War II or many other parts of history, Carlson offers first-hand experience. “Few teachers today can do that,” he said.

Eleanor Evans Borkenhagen ('54, Entomology) of Huntington Beach, California, and husband Dave are enjoying retirement in Southern California, along with their three children and four grandchildren.

Following graduation, she worked as an agricultural technician with the Orange County Agricultural Commissioner and was a research entomologist with Dow Chemical Company. She earned her M.A. in biology with an entomology emphasis from California State University, Long Beach.

Luanne Hebner Perez ('59, Family and Consumer Science) of Fillmore, California, teaches at Fillmore Middle School in the Fillmore Unified School District. Her class, Life Management Technology, has 17 modules based on family and consumer sciences. Perez loves to travel and recently visited Europe. Her three sons, Steven, Jeffrey and Theodore, are grown.

Paul Calverley ('61, Range Management) of Meridian, Idaho, spent 34 years with the USDA Natural Resource Conservation Service in Oregon, Nevada, California and Idaho. He retired as Idaho state conservationist in 1995. Today he manages timber property in Oregon and Calverley Farms in Idaho, which he describes as a “diversified rowcrop farming operation.”

Calverley serves on his local soil
conservation district board. He and his wife Harriet Wilson, who attended UC Davis from 1958 to 1961, have been married for 40 years.

Anthony “Tony” E. Hall (B.S., ’66, Irrigation Science; Ph.D., ’70, Plant Physiology) of Riverside, California, is professor at the UC Riverside Experimental Station. In September 2000, he received the Chair's Award for Scientific Excellence from the Board for International Food and Agricultural Development, which advises the U.S. Agency for International Development.

Hall was recognized for “outstanding research on plant responses to environmental stresses and plant breeding [and for] advising and collaborating with African scientists, contributing significantly to the development and extension of cowpea varieties that have provided millions of poor people with more food.”

In June 2001, Hall received the U.S. Department of Agriculture Secretary’s Honor Award for research developing stress-resistant crop varieties. He recently released cowpea variety “California Blackeye No. 27” for use by growers in California. In 1996, he co-authored and co-edited a bulletin titled “Blackeye Bean Production in California.”

Hall’s Crop Responses to Environment was published in 2001. It discusses principles and experimental observations relevant to the development of improved crop varieties and management methods.

Stephania A. Allen (’70, Child Development) of Denver, Colorado, is a principal in Allen & Nichols Productions, a company that presents keynote addresses and training programs using humor. She is the author of 24/7 This! The Merry Method to Accelerate Success, published in March, and Creating Your Own Funeral or Memorial Service. Her article, “Law Firm Levy is Good for Your Health,” was published in Santa Clara University Law School’s 2001 winter/spring alumni magazine.

Allen manages a Web site outlining resources for designing one's own funeral (wz.com/people/ Creating Your Own Funeral.html). Her favorite past-times are genealogy and walking along railroad tracks.


Ellison teaches a teleconference human sexuality course for the Holy Names College/Kaiser B.S.-in-Nursing Program and teaches pre-licensing sexuality courses for mental health professionals.

Lynette A. Schweigert (’71, Design) of Reno recently retired after owning a commercial interior design firm for 30 years. She currently owns Petal Pushers, an antique business, and is a design instructor at University of Nevada, Reno. She also coordinates the Alzheimers Art Program for the Northern Nevada Alzheimers Association.

“I’m having more fun with my design degree than I ever dreamed possible!” she writes.

Lourminia C. Sen (Ph.D., ’72, Agricultural Chemistry) of Davis recently was appointed agricultural and environmental science adviser to the California Department of Food and Agriculture. She was previously a supervisory agricultural chemist with the Pesticide Residue and Food Safety Section of the Center for Analytical Chemistry, Department of Food and Agriculture, a position she held since 1991. Prior to that, she was a postgraduate research biochemist and lecturer in the College of Agricultural and Environmental Sciences.

Sen earned her bachelor’s degree from University of the Philippines and bachelor’s and master’s degrees from Oregon State University. She is a member of the American Chemical Society. She and husband Arun have two daughters.


Schoeser co-authored the chapter “Well-paying Self Support: Women Textile Designers in the U.S.A.” Hampton’s woven textile - “Memories” - is featured.

Hampton received the Ellen Hansen Memorial Prize in 2000 for an embroidered textile piece in the shape of a flag. Titled “Lessons,” it is based on her research of textiles produced by African American women slaves in the south.

In September 2000, Hampton presented a paper, “African American Women: Plantation Textile Production from 1750 to 1830,” at the Textile Society of America’s annual conference. Currently, she teaches weaving at College of Marin.

Lourminia C.Sen (Ph.D., ’72, Agricultural Chemistry) of Davis recently was appointed agricultural and environmental science adviser to the California Department of Food and Agriculture. She was previously a supervisory agricultural chemist with the Pesticide Residue and Food Safety Section of the Center for Analytical Chemistry, Department of Food and Agriculture, a position she held since 1991. Prior to that, she was a postgraduate research biochemist and lecturer in the College of Agricultural and Environmental Sciences.

Sen earned her bachelor’s degree from University of the Philippines and bachelor’s and master’s degrees from Oregon State University. She is a member of the American Chemical Society. She and husband Arun have two daughters.


Schoeser co-authored the chapter “Well-paying Self Support: Women Textile Designers in the U.S.A.” Hampton’s woven textile - “Memories” - is featured.

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David J. Holcombe (’71, Applied Behavioral Science) is an internist with Freedman Clinic of Internal Medicine in Alexandria, Louisiana. He serves as president of the Rapides Parish Medical Society and continues an active interest in egg shell quality by making pysanki (Ukrainian Easter eggs) with his
Belgian wife, Nicole.

Holcombe received his M.S. in poultry science in 1975 from University of Florida's Institute of Food and Agricultural Sciences and his M.D. with a specialization in internal medicine in 1981 from Catholic University of Louvain, Brussels, Belgium.

David Hoff (’73, Food Science) of Winton, California, was named president of J.R. Wood, Inc., an Atwater, California, food processing company. The firm processes the Martin Yan (B.S., ’73; M.S., ’77, Food Science) line of food products.

Tess Albin-Smith (B.S., ’74, Renewable Natural Resources; M.S., ’78, Range Management) of Fort Bragg, California, is a forester with the California Department of Forestry and Fire Protection. She has lived in Mendocino County since 1990 and has worked with CDF for 23 years. Her work involves forest advisory, forest improvement grants, timber conversions, CEQA (California Environmental Quality Act) review and oak education.

Albin-Smith and husband Doug, a fish biologist, have three children. Their oldest, Kelly, attends UC Davis and majors in food science. Albin-Smith coaches high school soccer and plays "lots" of music. "Thanks, UC," she wrote, "for the great education and a great career!"

Christine Jackson Crain (’73, Home Economics) of Davis is owner of Chris' Chem-Dry, a carpet/upholstery cleaning firm in Davis. The 15-year-old company recently was voted "Best Carpet Cleaner in Yolo County." Her son, Steven, attends UC Davis and majors in managerial economics.

Jeanne Reese (’77, Agricultural Economics and Business Management) of Davis, recently was named associate director of Mediaworks on the UC Davis campus. She has worked on campus for 22 years, most recently with Information and Education Technology-Mediaworks and the National Institute for Global Environmental Change. She is responsible for Mediaworks' operational and technical management.

According to Reese, Mediaworks is the entry point for faculty to a broad range of technology and media services. "We have more than 40 skilled artists, and I assist in matching that expertise to the university community," she said. "Part of my role is to assure a strong organizational infrastructure behind these artists and designers, programmers, photographers, audio and video specialists. This is a very appealing mix of art, technology and business."

In 1986, Reese earned a master's degree in the Graduate School of Management.

Vicki Burich Wallace (’78, Environmental Planning and Management) of Boise, Idaho, is development director for the Alzheimer's Association - Greater Idaho Region. She and husband Terry have two children, eight-year-old Jamie and nine-year-old Stephanie. Vicki enjoys cycling, canoeing, skiing and hanging out with her family.

Frank Zalom (Ph.D., ’79, Entomology) of Davis and UC Extension specialist Ron Vargas of Madera County were awarded 2001 Friends of Extension Leadership Prizes by the University of California Cooperative Extension Service. They were recognized in the April 2001 issue of California Farmer for research benefiting California agriculture.

Zalom heads the UC Statewide Integrated Pest Management (IPM) Project. A CE entomologist, he is acknowledged for reaching many growers through award-winning IPM manuals for grower use and through the project's Web site, www.ipm.ucdavis.edu. According to Zalom, California is one of only two states with permanent IPM funding (New York is the other).

Vargas, a farm advisor in Madera County, focuses on cotton weed management in the San Joaquin Valley, helping growers substantially reduce herbicide costs. The award acknowledged that his research has saved cotton farmers hundreds of dollars an acre through the use of revolutionary nightshade controls ranging from reduced tillage to transgenics.

"The work of Zalom and Vargas epitomizes the value of the Cooperative Extension program to agriculture and to the general public as well, since development of safer and reduced-rate pest control programs have profound environmental consequences," wrote California Farmer's T.J. Burnham.

William Frost (B.S., ’79, Range and Wildland Sciences; M.S., ’81, Range Science Management) of Placerville, California, is program leader for natural resources for University of California's Division of Agriculture and Natural Resources. He also serves as natural resource advisor for Cooperative Extension for El Dorado, Amador and Calaveras Counties.

Frost recently was presented the Range Manager-of-the-Year Award from the California section of the Society for Range Management. He was recognized for contributions to the science and profession of range-land management.
David Barnett (M.S., '83, Horticulture) of Cambridge, Massachusetts, is director of horticulture at Mount Auburn Cemetery in Cambridge. He recently was featured on a segment of the Martha Stewart Living television program.

According to Barnett, Mount Auburn Cemetery was founded in 1831 and is the first landscaped cemetery in America. It serves as an active cemetery, arboretum, museum of sculpture and wildlife sanctuary.

Anne Taylor ('83, Textiles and Clothing) of Alameda, California, is a budget analyst with Residential and Family Living at UC Berkeley.

Lisa Kitinoja (M.S., '83, International Agricultural Development) of Woodland, California, is a consultant in her own firm, Extension Systems International. During 1999-2000, she worked with the UC Davis Office of International Programs as project coordinator of the USAID/UC/Egypt Agricultural Technology Utilization and Transfer Project. She also has facilitated training sessions with horticultural growers in India and Indonesia.

John Weubbe ('84, Agricultural and Managerial Economics) of Wheaton, Illinois, is senior vice president for Bank of America. He manages middle market agribusiness development and client relationship management responsibilities for the greater Midwest, including Illinois, Indiana, Ohio, Pennsylvania, Missouri, Kansas and Arkansas.

Weubbe, his wife Laura and their three children live in suburban Chicago.

Julie Jarzynka Burnett ('85, Agricultural and Managerial Economics) of Lake Zurich, Illinois, was named division vice president for SAFECO Commercial Insurance. She is responsible for underwriting, sales and administration services for SAFECO's commercial operations in the upper midwestern United States.

Burnett and husband John live outside Chicago. She is assigned to the Hoffman Estates office.

Denise Palermo Blakely ('85, Individual) of San Luis Obispo, California, received her M.S. in Agricultural Education at California Polytechnic University, San Luis Obispo. She taught at-risk youth for San Luis Obispo County Office of Education and currently works at the Juvenile Court school and in a community school.

Blakely and husband Roger have two children, Sarah and Jake. "We daytrade for fun," she writes, "and we travel a lot, especially to Australia and New Zealand."

Steven H. Weiss ('86, Agricultural and Managerial Economics) of Davis was promoted to the newly created position of director of marketing and public affairs at The Sacramento Bee. He served as the newspaper's marketing director since 1998 and previously served as director of university cultural programs at UC Davis, directing the regional performing arts and lectures program.

Weiss serves on the board of directors of Sacramento's public television station, KVIE-Channel 6; is a member of the People Reaching Out advisory board; and serves on the Campaign Steering Committee for UC Davis' Center for the Arts.

Andrew "Andy" Broadus ('87, Agricultural and Managerial Economics) of Davis is an agribusiness consultant with Wells Fargo Bank in Sacramento. He and wife Allison, a UC Davis graduate, have two children, a four-year-old son and one-year-old daughter.

Robert Frye ('88, Design) of Sacramento, assistant director for the Design Museum at UC Davis, completed his first year as a graduate student in UC Davis' Department of Theater and Dance. He was scenic designer for the critically acclaimed "Dr. Faustus," which played at the Wyatt Pavilion Theater. Frye currently is working on "Little Shop of Horrors," which will be presented on campus this fall.

Mike Harrison ('89, Environmental Toxicology) of Folsom, California, joined ECO:LOGIC Engineering, which specializes in municipal water, wastewater and stormwater facility planning, design and construction management. He is responsible for treatment plant engineering and specializes in biosolids treatment.

A registered professional engineer, Harrison has presented at California Water Environment Federation conferences. He is active in the California Water Environment Association, the Water Environment Federation and the American Water Works Association.

Harrison previously worked for Carollo Engineers and the Sacramento Regional Wastewater Treatment Plant. He is married to Jennifer Garrison-Harrison ('88, Animal Science).

Courtney Rosen ('89, Design) of San Francisco earned an M.B.A. from the Anderson School at UC Los Angeles. She is a venture capitalist with Accenture Technology Ventures (ATV), investing in and guiding young technology companies. She has assisted in launching products and companies for over a decade.

Previously, Rosen founded and served as CEO of eHow, a company focused on providing how-to information and products via print, radio, television and the Web. She co-authored How to Do Just About Everything, a how-to book published by Simon and Schuster.
Andrew Appleton (’92, Agricultural and Managerial Economics) of Oakland is chief operating officer of Essential Elements, which represents a line of natural bath, body and skin care products. The company is located in San Francisco.

Edwin Reidel (B.S., ’93, American Studies; M.S., ’00, Horticulture and Agronomy) of Ithaca, New York, and Cheryl deRenzy Reidel (’94, Design) reside in Ithaca with sons Aidan, age seven, and Owen, two-and-one-half. Edwin is pursuing a Ph.D. degree in pomology at Cornell University, and Cheryl is the family’s home-based parent.

J.R. Campbell (B.A., ’94 Design; M.F.A., ’96, Textile Arts and Costume Design) of Ames, Iowa, is an assistant professor at Iowa State University. He conducts evaluation-based research on the color-fastness of a variety of digitally printed fabrics when tested for wash-fastness and light-fastness.

Campbell’s artwork will be displayed at the 2001 CAD Expo in New York and in a Parsons School of Design exhibition of digitally printed garments. His garment, co-designed with colleague Jean Parsons, is titled “Exploring Digital Fashion and Textile Design (Part 1).” It will be shown at the Sheila and Arnold Aronson Gallery in New York City.

Campbell recently exhibited his digitally printed textiles in a two-person show at University of Nebraska, Lincoln. View the exhibition at http://www.design.iastate.edu/IDRO/digicloth.html.

Jeanne Wirka (M.S., ’97, Ecology) of Winters (left) and Judy Boshoven (’87, Landscape Architecture) of Davis are working with Yolo County farmers and agencies to revegetate 30 square miles of private land with native plants and grasses in order to control weeds, reduce soil erosion and provide wildlife habitat.

Their story was published in Audubon Magazine. Read it online at http://magazine.audubon.org/auduboninaction/action0101b.html.

Narges Kamali (’99, Design) of Rolling Hills, California, received her Master of Art in Apparel Design with a minor in computer-mediated communications from Cornell University in 2001. Her master’s thesis focused on mass-communication, apparel design and the Internet.

Kamali designed a Web site that allowed consumers to custom design clothes, then test for consumer satisfaction and consumer intent to purchase the custom-designed garment. She is assistant product developer with the New York headquarters of Federated Merchandising Group, which owns Macy’s and Bloomingdales stores. She is working with the design of private-label brands.

Kamali recently worked with Cornell’s information technology staff to create a garment to hold a wearable computer. “The computer works just like your desktop computer,” she said. “The hard drive is very small - 6 inches by 3 inches - and is worn on the belt of the garment, along with the battery pack and portable disk drive.”

Adele Zhang (M.F.A., ’99, Textiles Arts and Costume Design) of Gold River, California, taught at Delta College in Stockton. This fall, she begins teaching design and merchandising in the Family and Consumer Sciences Program at California State University, Sacramento.

Kathy Rousso (M.F.A., ’00, Textile Arts and Costume Design) of Ketchikan, Alaska, was awarded a Fulbright scholarship to study how net bags are made in Guatemala. According to Rousso, the tradition is slowly disappearing in that country. She plans to travel to Guatemala this fall and remain for nine months.

Kelly Dolan (’00, Design) of Sacramento, is a special events consultant with Maloof Sports and Entertainment. Her responsibilities include customer service, event planning and handling groups that come to Sacramento Monarchs, Kings and Knights sporting events.

Dolan was previously a graphic designer for Tom & Dave’s Juice It and manager of the UC Davis gold team, handling fundraising, recruitment and golf tournaments.

“My hobbies include health and fitness, golf and running. I love all sports,” said Dolan. “I love the time [I spent] at UC Davis. It enabled me to be where I am at such a young age. Davis is a great place. That’s why my sister is going there!”

Rodney Venterea (Ph.D., ’00, Soil Science) of Stanfordville, New York, was selected to receive the 2001 Truog Soil Science Award by the Soil Science Society of America. He will be honored in October in Charlotte, North Carolina.

Venterea is working at the Institute of Ecosystem Studies in Millbrook, New York. His Ph.D. adviser was Professor Dennis Rolston.
# College Custom Apparel Program

The College of Agricultural and Environmental Sciences

## UC Davis
College of Agricultural & Environmental Sciences

1. **Polo Shirt**
   - 100% cotton, plain pocket, embroidered logo on left chest and left sleeve.
   - Colors: Navy, White.
   - Size: S-XXL.
   - Price: $22.00

2. **Ball Cap**
   - Unstructured twill 6-panel cap, embroidered logo on front and embroidered UC Davis on back.
   - Colors: Navy, Black.
   - Size: S-M/L.
   - Price: $14.00

3. **T-Shirt**
   - 100% cotton, plain pocket, embroidered logo on left chest and left sleeve.
   - Colors: Navy, Black.
   - Size: S-XXL.
   - Price: $22.00

4. **Corduroy Jacket**
   - 100% cotton, corduroy jacket, embroidered with school logo.
   - Colors: Navy/Navy, Black/Black.
   - Size: S-M/L.
   - Price: $67.00

5. **Reversible Nylon & Fleece Vest**
   - 32 oz. nylon, polyester, embroidered, size: M-XXL.
   - Colors: Navy/Navy.
   - Size: S-M/L.
   - Price: $65.00

6. **Long Sleeve Denim Shirt**
   - 100% cotton, long sleeve denim shirt with embroidered logo on left chest and left sleeve.
   - Colors: Blue.
   - Size: S-M/L.
   - Price: $22.00

7. **Khaki Shorts**
   - 100% cotton, plain pocket, embroidered logo on left chest and left sleeve.
   - Colors: Navy, Black.
   - Size: S-XXL.
   - Price: $22.00

8. **Polka Dot Apron**
   - Polka dot apron, embroidered, size: S-M/L.
   - Colors: Black.
   - Size: S-M/L.
   - Price: $22.00

## Order Form

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**Price applies to sizes XS - XL.**

**Shipping & Handling**
- Orders over $50 shipped free.
- Orders under $50 shipped for $7.95.

**Excluding Sales Tax**
- Orders under $50 shipped for $7.95.
- Orders over $50 shipped free.

**Subtotal**

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<td>2200 Dividend Dr., Columbus, OH 43228</td>
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Alumni Information Sheet

This alumni section is a favorite among our 45,000 readers. People like to know where you're living and what you're doing. Take a moment to drop us a note. Return this form to the address below or send us the same information electronically to outlook@agdean.ucdavis.edu. If you send us a photo, we'll scan and return it to you immediately.

New Address
Name_________________________________________________________________________
Street Address _________________________________________________________________
City ________________________ State _______________ Zip _______________
Home Phone (____) _______________________________________________________________
Year Graduated ________ Degree _________ Major ___________________________________
Occupation ___________________________ Employer________________________________
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