

A young woman with dark hair, wearing a white lab coat, is smiling and looking towards the camera. The background is a blurred laboratory setting with other people in lab coats.

CA&ES Outlook

COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES • UC DAVIS • FALL/WINTER 2008

You've seen
where we've been.
Find out where
we're going.

OUR FUTURE IS

BRIGHT

CA&ES Outlook

is a publication of the
College of Agricultural and
Environmental Sciences

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This publication is funded
partially through gifts from
the J.G. Boswell Foundation.

PRINTED ON RECYCLED PAPER

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HAPPENINGS

The Robert Mondavi Institute
for Wine and Food Science
celebrates
its grand
opening
with a tasty
bash.

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COVER STORY

As UC Davis celebrates
its centennial year, the
College of Agricultural
and Environmental
Sciences is ready
for the next
century. Join
us for a
look at new
challenges and
opportunities that promise
to keep the college vibrant
and connected.

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COVER PHOTO:

Blanca E.
Camacho
is a third-
year animal
science major
from San Diego.
Her goal is to
be a veterinarian,
perhaps for the
San Diego Zoo or
Wild Animal Park.

PHOTO: NEIL MICHEL/AXIOM



MARK YOUR CALENDAR

PICNIC DAY NOT FAR AWAY

ON SATURDAY, APRIL 18, 2009, UC Davis and the city of Davis invite you to celebrate the 95th annual Picnic Day. This signature event, celebrating the UC Davis centennial, is designed to showcase the richness and diversity of campus life, as well as the Davis community. The event kicks off with a pancake breakfast at 7:30 a.m. and a parade ceremony at 9 a.m., followed by the parade, entertainment, departmental exhibits, animal displays, and other exciting events. For more information, visit www.picnicday.ucdavis.edu.

THE NEXT CENTURY

Your consultation and feedback help shape our future.

WE IN THE COLLEGE OF AGRICULTURAL AND Environmental Sciences are celebrating the 100th birthday of the founding of UC Davis in a befitting manner — with pride in the past and great expectations for the future.

During the last century we progressed from a modest teaching farm to the best research and teaching university of its type in the world. We have made differences in many areas that directly affect each of us, including environmental quality, health and nutrition, economic development, and agricultural and food sustainability. At the same time, we have taken on emerging issues in a growing and ever-changing California. We are proud of our successes but must not be complacent — planning *now* for the next century is integral to our future success.

JOHN STUMBOS/UC DAVIS



Dean Van Alfen visits with college supporters Kay Gist (center) and Lu Bakken (right) during a Dean's Circle event at Wolfskill Experimental Orchards.

As dean, I have the opportunity to interact with numerous stakeholders, including alumni, supporters, faculty, staff, and decision-makers who care about the work we do. All have unique perspectives on the value of UC Davis and how we can best fulfill our mission. As a dean, faculty member, UC Davis alumnus, and California resident, I have my own views on how to keep this college vibrant.

I depend on feedback from others to develop a vision for the college. I heartily invite people — faculty, staff, and others — to share their thoughts with me through my open-door policy, our college website, and an electronic newsletter, *CA&ES Currents*. In 2006, I formed a faculty Academic and Strategic Planning Committee to help shape the college's 2007–2012

We are proud of our successes but must not be complacent — planning now for the next century is integral to our future success.

Academic and Strategic Plan (<http://caes.ucdavis.edu/ourcollege/academic-plan-2007>). The committee's input, representing the entire college, has been invaluable in defining the future of our research, teaching, and outreach programs.


I also rely on the advice of external stakeholders and partners who understand the importance of the college's contributions to California. This college has a Dean's Advisory Council that meets regularly to address timely issues that merit collective discussion. Council members advise me on current and future research needs, creative teaching practices, new outreach models, and how to connect better with all of our stakeholders.

I am grateful for the help this diverse group provides as we continually evaluate our success in serving California and the world with research, teaching, and outreach.

I invite you to stay connected to the College of Agricultural and Environmental Sciences and to be a part of building our future. Please read "Stay Connected" on page 27 for some ideas on how to stay engaged.

NEAL VAN ALFEN, DEAN
COLLEGE OF AGRICULTURAL AND
ENVIRONMENTAL SCIENCES

MO



Katie Almand, a senior who is majoring in animal science, is also an Aggie Ambassador for the College of Agricultural and Environmental Sciences.

MOVING FORWARD

Our college is going places.
Saddle up and enjoy the ride.

Our last issue of *CA&ES Outlook* (Spring/Summer 2008) celebrated the many accomplishments of the College of Agricultural and Environmental Sciences (CA&ES) over the past 100 years. The impacts of our research, teaching, and outreach activities helped establish California's vibrant agricultural economy, lead the field of environmental sciences, and provide guidance on important issues facing our families and communities.

Our stature as the leading college of its type lays a foundation for a successful future. However, we must pay close attention to the needs of our quickly changing world and take the steps necessary to ensure that we can continue to provide solutions to society's most pressing problems.

Demographic changes, economic trends, globalization, and rapidly developing communication tools affect our work in profound ways. In the pages that follow, we examine some of those trends and the innovative changes taking place in our college to maintain the quality, relevance, and value our programs provide to the world as we embark on our next century of discovery.

The beginning of a

by Christine Schmidt

NEW ERA

Shifting demographics within the college — and the communities we serve — create challenges and opportunities. For instance, the age distribution of current faculty in the College of Agricultural and Environmental Sciences will dramatically change the make-up of the college in the near future. The average age of our faculty is 54, which indicates that many retirements, approximately half of our total faculty, may occur within the next 10 years. A recent survey informed us that up to 100 faculty members may retire between 2007 and 2012.

CA&ES faculty members are world-renowned experts in their fields, and we need to ensure that their knowledge and collaborative, interdisciplinary work ethic is passed on to junior faculty. The state's budget challenges make it difficult to recruit and hire a large cadre of junior faculty members, but we are investing as much as possible to ensure that we maintain excellence far into the future.

The student population is also changing dramatically. California universities will need to educate many more students in the future. The state's population is expected to grow by another 10 million to more than 46 million people by 2030. Our current higher educational infrastructure won't be sufficient to fully meet this need. Our teaching programs must remain accessible and relevant to keep those students — and California — competitive.

Simply serving the large number of eligible students, however, won't be enough. The gap in statewide college enrollment between whites and other ethnic groups (ages 18 to 24) has narrowed substantially in recent years but still remains. According to the National Center for Public Policy and Higher Education, 47 out of 100 white young adults in California are enrolled in college. That compares with 36 out of 100 young adults from all other ethnic groups combined.

Geographic location and income levels also bear on access to higher education. We continue to monitor trends affecting our college enrollment and are investing in recruitment and student enrichment programs that attract underserved minority students and provide the support they need to be successful.

ECONOMIC TRENDS

Historically, the cost of operating land-grant institutions such as UC Davis was shouldered by the state government. Support for research came from both federal and state sources. Private support provided help for students through scholarships and fellowships.

Financial support at all land-grant universities is very different today. In recent decades, California's budget has not been sufficient to maintain the levels of support that helped create our knowledge-based economy. Budgets for state-funded agricultural research and extension programs have been cut severely in the past 18 years. As a result of their scholarly excellence, however, our college faculty are very successful in generating research funding for their programs from external sources. This funding does not directly support instructional activities or other operational costs incurred by the university. External funding does support research that allows our faculty to apply their expertise to solving society's most pressing problems.

This college leads the campus in total research expenditures — spending that fuels innovation and technology development. This includes both state-funded and extramural research expenditures. Pending retirements will decrease the number of faculty members generating extramural research funding, emphasizing the importance of hiring as many new

faculty members as possible to meet the needs of California.

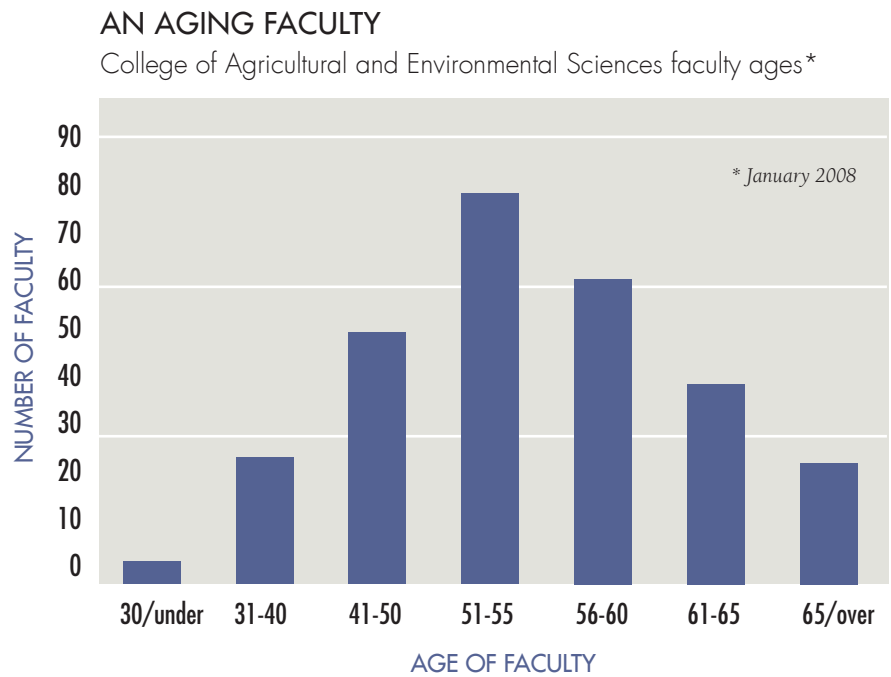
Private support has become an increasingly important element of university funding. Individual, foundation, and corporate contributors are playing a significant role in ensuring that the College of Agricultural and Environmental Sciences maintains its excellence. Through philanthropic gifts, contributors provide endowment support for programs that thrive when long-term funding is secure, generate seed funding for new initiatives, and help students afford an outstanding education.

GLOBALIZATION AND COMMUNICATIONS

The College of Agricultural and Environmental Sciences has a long history in the global economy. We share new technologies and practices, and educate students who provide leadership throughout the world. In the 1960s and '70s, for example, more than 50 Chilean students studied agriculture at UC Davis and returned home to transform their country's

Private support has become an increasingly important element of university funding. Through philanthropic gifts, contributors provide endowment support for programs that thrive when long-term funding is secure, generate seed funding for new initiatives, and help students afford an outstanding education.

agriculture. This type of exchange has helped put UC Davis on the map. Members of the UC Davis family who travel abroad often find that UC Davis is highly regarded in other parts of the world.



Other countries have recognized the importance of research and development and are investing in areas where California has typically led. They are aggressively funding agricultural research, something that presents a very real challenge to keeping California competitive. Since its inception, UC Davis has provided global leadership in plant breeding. Research in our college

grains. Other countries, particularly China, are making massive investments in plant breeding and other agricultural disciplines. Our investments need to be maintained or increased if we are to remain a leader in this field.

In keeping with the land-grant tradition, our college has been a leader in finding new ways to communicate cutting-edge science for practitioners. Recent technology advances have provided many new outreach tools — increasingly interactive webpages, e-mail services, and social networking sites. We are embracing all of these to reach target audiences that can benefit from the knowledge generated by our researchers.

Many issues such as agricultural sustainability and climate change require a long-term commitment of resources. We strive to include information on these areas through ongoing publications such as this magazine. Read on to learn more about how we are reinventing ourselves to prepare for the future.

Teaching for EXCELLENCE

by Ann Filmer

When short courses were first announced on campus a century ago, they were intended for “busy men and women who want to know more about their everyday problems, but who cannot spend much time away from home.” Early instruction focused on farm practices, plant propagation, horticulture, viticulture, dairying, farm mechanics, irrigation, and livestock care.

The teaching program at UC Davis has come a long way in the last century. The campus now has more than 31,000 students (24,200 undergraduates, 4,100 graduate students, and 3,100 professional school students). Women make up 55 percent of our undergraduates, and 49 percent of the graduate student ranks. In the College of Agricultural and Environmental Sciences, we have about 5,300 undergraduate students in 29 majors and 1,000 graduate students in 45 graduate groups and programs. Our college confers about 1,200 bachelor's degrees each year.

UNDERGRADUATE EDUCATION

The 29 current undergraduate majors in CA&ES are a far cry from the “practical agriculture” classes of 1908, when farmers likely never dreamed of biotechnology or community and regional development. But California no longer has a predominantly agrarian economy. The last century has brought phenomenal population growth, changing demographics, and a rise in environmental concerns. With astounding technological advances, we now



New faculty member Ryan Galt discusses his “food systems” course with student Colleen Hiner.

have a global economy with instantaneous access to information, and a broader role for advanced science in agricultural, food, and health systems. While some students still learn to milk a cow at UC Davis, many more learn to extract DNA from cells.

Our college has kept pace of undergraduate teaching by improving the competitiveness of our programs, offering relevant majors, and meeting employer expectations of graduates. We want to ensure that our graduates are not

only hands-on learners, but also go on to be lifelong learners, decision makers, and leaders. We are the most selective of the four colleges at UC Davis, and we are fortunate to have a robust pool of student applicants.

One change on the horizon is building undergraduate strength in academic programs that have traditionally served graduate students. Examples include plant pathology, nematology, entomology and land, air and water resources. These departments

historically have top-ranked graduate programs but relatively low numbers of undergraduates in their majors. Dean Neal Van Alfen, a strong proponent of keeping undergraduate curricula up-to-date, notes, “Although new undergraduate *majors* are not planned in these areas, faculty in those departments could teach more of the general undergraduate courses. This gives students exposure to the real-world relevance of these subject areas.”

NEW MAJORS

Last fall, a new agricultural and environmental education major debuted on campus. Coordinated between our college and the UC Davis School of Education, the major should help alleviate the statewide teacher shortage in agricultural and environmental education while also providing for people who want to teach in non-formal settings such as nature preserves and environmental camps.

Students in the agricultural and environmental education major take classes in a broad range of agricultural and environmental sciences, as well as social sciences related to human resource development. Cary Trexler, a professor in the School of Education and master adviser for the new major, says, “Not only will our students be ready to teach agricultural and environmental science, but they will also be credentialed to teach other science courses as well.”

Another new major in the college, expected to be official within the next 18 months, but with classes being offered this year, is sustainable agriculture. The integration of environmental health, economic profitability, and social and economic fairness will all be addressed in this major. Tom Tomich, director of the UC Davis Agricultural



Undergraduates Grace Cun (left) and Allison Zike (center) examine new growth on grape plants with plant sciences professor Kent Bradford (right).

Sustainability Institute, has been working with a large number of campus faculty to establish the new major. Tomich notes, “The skills and knowledge gained through this broad, interdisciplinary curriculum will prepare students to become leaders in sustainable agriculture in California and throughout the nation.”

Internships will be a part of the curriculum for the sustainable agriculture major. Students will be encouraged to work on farms, at farmers markets, and with producers, policymakers, nonprofits, and government agencies. Ryan Galt, assistant professor in human and community development, is teaching a new “Food Systems” undergraduate course this quarter, focusing on contemporary food and farming systems, agricultural sustainability, and economic equity. Galt notes, “Students will see how production, processing, distribution, and consumption affect food price, nutritional content, and access.”

CONNECTING WITH UNDERGRADUATES

Over the last decade, our college

has launched several new programs to help students connect with majors, understand the world at large, and choose careers after college. Programs such as Career Discovery Groups, the Science and Society Program, the Art/Science Fusion program, and Aggie Ambassadors have been covered in a recent issue of *CA&ES Outlook*.

The Career Discovery Group program (started in fall 2006) improves freshmen retention (most strikingly in underrepresented minorities), boosts student grade point averages, and increases the number of units taken each quarter. The spring 2007 issue of *CA&ES Outlook* covered our undergraduate education programs, and specifically the programs mentioned here. That issue, and other past issues of *CA&ES Outlook*, can be viewed at www.outlook.ucdavis.edu.

GRADUATE EDUCATION

Not many universities can match our consistently high rankings in agricultural sciences, entomology, food science and nutrition, plant and animal sciences, soil science, agricultural economics, agricultural engineering, plant pathology,

agronomy, and horticulture.

These rankings are due not only to our outstanding research and teaching faculty and staff but also to our historically strong graduate education programs. UC Davis' system of graduate groups, which cross academic departments and disciplines, reinforces the vitality and impact of our teaching and research opportunities for graduate students and draws excellent graduate students from throughout the world. Of the 4,100 graduate students on campus, 22 percent are international.

Students who receive master's and doctoral degrees from this college go on to become academics, researchers, industry leaders, policymakers, and government leaders both in the United States and in other countries. This international "bridge building" helps provide food for the hungry, establish stable economies, and foster social well-being for communities. It also offers opportunities to collaborate on large-scale international issues such as food distribution, climate change, water resources, and human health.

This college is looking at several methods to maintain the excellence of its already-strong graduate programs. Faculty have identified a need to increase the number of graduate students and graduate programs in this college. The graduate student population is an indicator of top research universities.

With the increasing population in California and throughout the world, the college is in a prime position to increase the scope of its graduate training to address the changes happening in California and beyond. Strengthening graduate education in the college is vital to the college's national and international standing.

The college is looking at subject areas that have not been fully served by its graduate programs. Some areas, such as landscape

architecture and community development, could be expanded at the graduate level. The college aims to provide excellence in more of its programs at both the graduate and undergraduate levels.

Providing graduate education or postgraduate learning opportunities for working professionals is another area that some in the college would like to expand. New types of programs such as professional master's degrees would allow the graduate program to grow and would offer evening, weekend, or online learning opportunities to working professionals who are not able to attend graduate school full time.

OUR VISION FOR THE FUTURE

Keeping our undergraduate majors and graduate programs relevant to students and useful to employers is critical to our future vitality. Diane Ullman, associate dean for Undergraduate Academic Programs, regularly works with students, faculty, and external stakeholders to make sure that the college's majors prepare students to address emerging issues in California and the world.

"Our students are educated to think critically, to work in teams, and to solve complex problems, and they have many opportunities for hands-on learning on campus and through internship opportunities," Ullman says. "We are committed to training the leaders of tomorrow with programs and courses that allow students to leave the campus ready to meet the dynamic needs of society."

Looking at the evolution of California in the last century, we can be sure that the next century will bring changes unimaginable to us now. By reinforcing our educational foundation, we are preparing our students to take on the challenges — and opportunities — of the next century.

CA&ES majors*

Agricultural Sciences

Agricultural and environmental education	
Animal biology	
Animal science	3
Animal science management	
Avian sciences	
Biotechnology	5
Entomology	
Plant sciences	
Viticulture and enology	11

Environmental Sciences

Agricultural and environmental education	
Atmospheric science	
Ecological management and restoration	
Environmental horticulture and urban forestry	
Environmental policy analysis and planning	
Environmental science and management	
Environmental toxicology	
Hydrology	
Landscape architecture	10
Wildlife, fish and conservation biology	7

Human Sciences

Agricultural and environmental education	
Clinical nutrition	6
Community and regional development	4
Fiber and polymer science	
Food science	9
Human development	2
International agricultural development	
Managerial economics	1
Nutrition science	8
Textiles and clothing	

There are also Individual and Undeclared/Exploratory majors.

*The 11 leading majors by enrollment are marked

Research

by Robin DeRieux

FRONTIERS

Global climate change, food supply, energy, population growth — societal problems will set the agenda for future research in the College of Agricultural and Environmental Sciences. “Our expertise is needed to address issues that are too complex to be addressed by research in a single discipline,” says Dean Neal Van Alfen. “These problems will have to be solved with integrated, system-level research. So while we plan to maintain strength in our core disciplines, we also want to provide opportunities for interdisciplinary research.”

Academic research by CA&ES faculty covers a broad range of topics that affect our everyday



Salmon at the Feather River Hatchery

MATT EYVA SHI/CALIFORNIA DEPARTMENT OF FISH AND GAME

lives. While many investigations are conducted in the laboratory, field, or greenhouse, others reach out into the community to analyze population issues. Here are three examples of cutting-edge research projects in our college that cross boundaries between traditional disciplines. The first examines the effects of environmental contaminants on salmon. The second looks at young people in the Sacramento area and their impact on regional vitality. The third investigates the use of genomic information to improve cattle breeding.

TOXICOLOGISTS ASSESS FISH HEALTH

California’s salmon populations have plummeted dramatically

in recent years, and UC Davis professor Ron Tjeerdema is investigating one of many possible causes for their decline through environmental metabolomics research. Tjeerdema’s laboratory works with salmon, steelhead trout, smelt, and other anadromous fish that hatch in freshwater streams, swim out to saltwater to mature, and return to inland rivers to spawn and die. “We’re looking at the effects of environmental contaminants on fish, and how the contaminants affect their whole-body health, based on categorizing their metabolic profile,” explained Tjeerdema, chair of the Department of Environmental Toxicology.

While other UC Davis faculty are using metabolomics to study human health, nutrition, and food

What is Metabolomics?

Metabolomics (mə·tə·bē·'lɒ·miks) is a relatively new field that studies the health of an organism by measuring the concentrations of small molecules, called metabolites, in cells, fluids, or tissues. Metabolomics involves the simultaneous measurement of dozens of metabolites. The technique relies on bioinformatics, which uses computers and statistical techniques to help interpret the tremendous amounts of biological data generated. Metabolomics requires collaboration among computer scientists and biologists, as well as analytic chemists, who continue working to identify the 100 to 200 metabolites that can be profiled.

science, Tjeerdema is a pioneer in applying the technique to environmental studies. For the past several years, his lab has been using metabolomic analysis to determine whether crude oil or oil sprayed with a chemical dispersant is more toxic to salmon. This information will help oil-spill responders determine the best course of action during emergencies, at least with regard to the health of salmon.

Tjeerdema has also conducted research on the impact of pesticides and heat stress on fish. His goal is to help state and federal agencies set water quality standards based on a deeper understanding of the impact of environmental stressors on the health of fish and other organisms.

“Sublethal levels of environmental pollutants can stress adult fish enough that reproduction drops,” said Tjeerdema. “You may not see a bunch of dead fish lying around, but over time, you see a population crash. Metabolomics



ALYSSA NELSON/UC DAVIS

As part of a community development project, young people in the Central Valley community of Knights Landing helped create this mural about the town's history and hopes for the future.

can provide us with a very sensitive measure of the impact of environmental stressors, which can help us develop more protective water quality standards.”

ENGAGING YOUNG PEOPLE IN REGIONAL CHANGE

The fastest growing area of the state, California's Central Valley is home to 6.6 million residents, with a population expected to nearly double by 2040. Many faculty in the College of Agricultural and Environmental Sciences

funded by the Sierra Health Foundation engages one of the Central Valley's most precious resources — its youth.

“Managing growth is critical to our future health,” said geographer Michael Rios, a professor of landscape architecture. Rios is collaborating with a group of faculty members on a pioneering study called Healthy Youth/Healthy Regions that will analyze the relationship between youth success and regional vitality in the Sacramento area.

“This project is cutting-edge because it highlights how youth need to be key stakeholders in regional development. It will examine how the health of the region depends on the health of its youth — especially those who are underserved or underrepresented.”

are conducting research on the impact of population growth on valley resources and residents. A new multidisciplinary study

“This project is cutting-edge because it highlights how youth need to be key stakeholders in regional development,” said

Jonathan London, a professor of human and community development and director of the Center for Regional Change, which will spearhead the study.

“It will examine how the health of the region depends on the health of its youth — especially those who are underserved or underrepresented.”

The two-year project will use Geographic Information System (GIS) equipment to create digital maps that provide a visual representation of demographic and land-use trends. These maps help clarify planning issues for policy-makers and community members.

A quantitative team led by community development professor Chris Benner will measure and map youth education, health, and employment. Another team, led by Rios and researcher Nancy Erbstein in the School of Education, will conduct interviews to analyze factors contributing to youth success or failure in school. In addition, a team led by professor Patsy Eubanks Owens of landscape architecture will assist youth in documenting changes in the Sacramento region through photography and place mapping.

A BULL MARKET: USING GENES TO PREDICT POTENTIAL

Alison Van Eenennaam wants to help cattle breeders select a better bull. A Cooperative Extension specialist in animal genomics and biotechnology, Van Eenennaam is conducting research to help cattle producers determine the cost effectiveness of using genomic information to select bulls for breeding.

Genetic progress in cattle is determined primarily by the merit of bulls used as sires for each generation. Scientists recently completed the sequencing of the bovine genome, which paves the



KRISTINA WEBER/UC DAVIS

Three cattle ranches in Siskiyou County are participating in the genetic evaluation study.

What is Genomics?

Genomics (jə-ˈnɒ-miks) is an evolving field that uses all of the DNA information in the chromosomes of an organism to study genes and their function. The genome is the total DNA sequence that characterizes a species. In recent years, scientists have sequenced the genomes of many organisms. They have identified naturally occurring DNA sequence variations, or genetic markers, that are responsible for different characteristics within a species.

way for producers to select sires based on the actual DNA sequence of their genes. Naturally occurring DNA sequence variations are responsible for most of the trait differences among individual animals, such as growth rate, meat

tenderness, or disease resistance.

“We want to see if using genomic selection data for the bull gives producers a more accurate prediction of how offspring will perform on the ranch,” said Van Eenennaam, who is collaborating with Cooperative Extension farm advisor Daniel Drake on the study, along with additional experts in genetic analysis, economics, statistics, and computer science. Three commercial ranches in Siskiyou County are participating in the research, as well as the university’s experimental herd at the Sierra Foothill Research and Extension Center.

As a Cooperative Extension specialist, Van Eenennaam does outreach to educate industry and the public about the field of genomics and animal biotechnology. Her 30-minute educational video titled “Animal Biotechnology” can be viewed at <http://animalscience.ucdavis.edu/animalbiotech>.

Connecting with **THE WORLD**

by John Stumbos

Engaging the public in innovative ways is a UC Davis tradition. Picnic Day got its start a century ago to show off new dairy teaching and research facilities. Demonstration trains traveled the Central Valley in the 1920s to teach animal husbandry practices. Field days at farms and ranches have proven their worth for decades.

Today, new forces are at play. The Internet and new communications technology have fundamentally changed how we do business. Academic disciplines merge their expertise in areas of common interest and public concern. These trends are reflected in new centers and institutes our college has created to address issues such as agricultural sustainability, climate change, and food safety.

These programs wear many hats: research clearinghouse, information publisher, public meeting organizer, and focal point for university scientists, industry partners, government



DAMIAN PARR/UC DAVIS

Garrett Pedretti participates in a student-farm project that provides organic food to the community.

agencies, and community groups to address the issues of the day.

FARMING FOR THE FUTURE

The Agricultural Sustainability Institute (ASI) at UC Davis, established in 2005 with a \$1.5 million gift from the W.K. Kellogg Foundation, is now the hub of efforts to enhance the long-term viability of California agriculture.

ASI brings together several programs under one roof. Researchers at the Russell Ranch Sustainable Agriculture Facility are comparing fertilizer, pesticide, and water use in different cropping systems. ASI is also a partner with the UC statewide Sustainable Agriculture Research and Education Program, which since 1987 has helped farmers and ranchers adopt biologically integrated farming practices. The program helps growers connect with

consumers in community food systems like farmers markets and other institutions. The oldest program in ASI is the UC Davis Student Farm. Begun in 1977, it helps students learn about sustainable farming and provides the campus community with fresh, locally grown produce.

“One of our primary goals is to build a strong scientific foundation for improved agricultural practices that demand less of the environment,” says Tom Tomich, ASI’s director and the Kellogg Endowed Chair in Sustainable Food Systems. “Coordinating our efforts in an institute improves interaction among scientists and creates a more visible point of contact for the agricultural community.”

Sustainable agriculture research at UC Davis has helped growers reduce fertilizer use; manage cover crops, crop residue, and soil

organic matter; and manage weeds and pests with fewer pesticides. Research is also examining how sediment, nutrients, and pesticides move in runoff under different cropping systems.

Sustainability work includes food systems issues, such as distribution channels, farm labor, and consumer education. Farm-to-institution projects are helping communities reconnect with agriculture and increase sales to schools, hospitals, and prisons. “We’ve seen school children increase their consumption of fresh, local fruits and vegetables in schools participating in farm-to-school programs,” says ASI food systems analyst Gail Feenstra.

The Student Farm is also home to the Children’s Garden Program. “Thousands of elementary school children visit our working farm and garden site each spring to learn about garden ecology and growing food,” says program director Carol Hillhouse. “We offer hands-on training for college students, teachers, parents, and volunteers who work with school gardens.”

A FRESH APPROACH TO PRODUCE SAFETY

In 2007, UC Davis responded to public concerns about fresh fruit and vegetable safety by partnering with industry and the California Department of Food and Agriculture to create the Center for Produce Safety (CPS).

“The industry came to UC Davis because they wanted a global center for produce safety research and information,” said CPS executive director Bonnie Fernandez-Fenaroli. “UC Davis is known and respected worldwide, so the match was perfect.”

The new center was established with \$2 million from the Produce Marketing Association (PMA) and \$2 million from Taylor Farms of Salinas. The California Department of Food and Agriculture contributed



ERIC ROHR/UC DAVIS

Bonnie Fernandez-Fenaroli is executive director of the Center for Produce safety, which recently launched a \$1 million effort to enhance the safety of fresh fruits and vegetables. It will focus on the “field to fork” research needs of the entire produce supply chain — from the soil and water in the fields to storage practices in retail and foodservice outlets.

\$500,000, and UC’s Agriculture and Natural Resources division gave \$150,000. The center will fund and coordinate research, support training, and promote consumer education. Its activities are guided by an advisory board comprised of produce industry leaders, university scientists, and government agencies.

“The success of the produce industry begins and ends with our collective commitment to public health,” said PMA president Bryan Silbermann. “Our members, who represent every link of the nation’s produce supply chain, are committed to supporting robust food safety programs based on the best science available.”

Bruce Taylor, chairman and chief executive officer of Taylor Farms, described his company’s contribution as “an investment in the future” of the produce industry. “I encourage my colleagues across the entire supply chain to contribute at whatever level possible to ensure that the Center for Produce Safety is able to advance an aggressive research agenda,” he said.

The center complements

existing produce safety research and education efforts at UC Davis, such as those by Cooperative Extension specialist Trevor Suslow, who specializes in limiting microbial contamination in perishable produce. The

“The success of the produce industry begins and ends with our collective commitment to public health.”

Postharvest Technology Research and Information Center at UC Davis also provides information on how to handle fresh fruits.

“We have to look through the whole food chain,” Fernandez-Fenaroli says. “There are many touch points that need research and many opportunities to educate the public about produce safety.”



The California Center for Urban Horticulture is helping people find more sustainable ways of managing urban landscapes. The first “Rose Day” in 2008 (above) was a huge success.

REDEFINING URBAN HORTICULTURE

As California cities and towns have grown, so have the state’s urban landscapes. Horticultural practices have an impact on environmental quality, with water and pesticide use a particular concern. The college created the California Center for Urban Horticulture (CCUH) in 2007 to provide the latest horticultural, gardening, and landscaping information to landscape professionals, educators, and the public.

“Four of the 10 fastest-growing cities in the U.S. are located in California,” says CCUH executive director Dave Fujino. “Horticultural practices can help mitigate many of the environmental problems associated with urban growth and can improve the quality of urban life.”

Half of California’s residential water and pesticide use is on landscapes. Pesticides, fertilizers, and other chemicals are often over-applied, with the excess flowing into the state’s waterways.

“There is an urgent need for environmentally sound horticultural information to help home gardeners make better choices,” Fujino says. “Public and private landholders are

“There is an urgent need for environmentally sound horticultural information to help home gardeners make better choices.”

also seeking information on more sustainable horticultural practices that protect wildlife corridors, support native pollinators, and protect natural resources.”

In its first year, CCUH sponsored three educational meetings: *Rose Day*, *Quality Trees for California*, and *Global Climate Change in Your Backyard*. Water and pesticide use were chief topics in the climate change conference held in May 2008.

The center is closely linked to the 100-acre UC Davis Arboretum, which is expanding its research, education, and demonstration programs on horticultural practices and plant choices for the Central Valley. CCUH is also planning training for horticulture and landscape professionals, agencies, master gardeners, K-12

and community college teachers, university students, and others who educate the public.

RMI’S CENTERS OF ATTENTION

In 2001, renowned California wine producer Robert Mondavi made a landmark gift of \$25 million to establish the Robert Mondavi Institute for Wine and Food Science (RMI) at UC Davis. The institute was conceived as a gateway to a community of scientists, engineers, entrepreneurs, policymakers, industry professionals, and technologists engaged in the world of food, wine, and other beverages.

The university celebrated completion of the first phase of RMI’s new academic buildings in October 2008. In addition to the departments of viticulture and enology, and food science and technology, this is also home to three new centers strengthening ties between the campus and California’s food and wine industries.

The Center for Fruit and Vegetable Quality is on a mission to get people to eat more of what everyone from mom to your doctor says is good for you. “Research into color, texture, flavor, and nutritional quality can improve consumer acceptance of fruits and vegetables,” says center food scientist and director Diane Barrett. More than two dozen faculty members are affiliates.

The UC Davis Olive Center, launched in early 2008, seeks to benefit California olive oil and table olive producers. “With the help of our industry partners, work has begun on an organic orchard, olive oil processing, and the sensory qualities of black-ripe sliced olives,” says the center’s executive director, Dan Flynn. Other projects include technical assistance on labeling legislation and a survey of olive oil producers.

The RMI Center for Wine Eco-

nomics is focused on competitiveness of the wine industry. “In addition to applied research, we will also be engaged in teaching and outreach activities,” says agricultural economics professor and center director Julian Alston. “Current projects are examining a range of issues including the economic implications of climate change and exotic pests and diseases; determinants of changing demands for and prices of wine and winegrapes; the roles of government policies in California and elsewhere; and the impacts of science and production technology on competitiveness of the California wine industry.”

RMI brings industry leaders to campus for fall and spring lectureships and is planning new educational activities to link wine and food science with artistic,



ANN FIMMER/UC DAVIS

Katie Hetrick (left), a writer with the campus Grounds Division, works with Dan Flynn (right), director of the UC Davis Olive Center, to establish links with olive growers and olive oil producers.

culinary, cultural, and historical practices. Says RMI executive director Clare Hasler, “One of the defining features of the institute

will be its international profile and the opportunity this presents to expand collaborations and identify new partnerships.”

The road AHEAD

The College of Agricultural and Environmental Sciences is also charting new territory in many areas that will have a profound impact on our future.

We are helping shape the Foods for Health Institute, a major campus initiative that includes research, outreach, and teaching programs in the arena of food and health. Directed by nutrition professor M.R.C. Greenwood, the institute seeks to integrate UC Davis strengths across departments, schools, and colleges to foster collaborations in cross-disciplinary

areas of study such as medicinal nutrition, food engineering, and food processing, as well as quality-of-life issues, policy analysis, and education methods.

Another program developing the future of our food is the Seed Biotechnology Center. Advances in classical genetics and plant molecular biology have opened the way for dramatic modification of crop plants for protection from diseases, insects, and weeds, along with improved product quality and crop value. As faculty director of this center, Kent Bradford is

cultivating partnerships with the seed and plant biotechnology industries to facilitate the discovery and commercialization of new seed technologies for agricultural and consumer benefit.

The UC Davis Energy Institute has begun coordinating cross-campus energy research with other institutes, laboratories, and programs across the nation and around the world. The vision is a world-class institute in energy with particular focus on sustainable energy system design. The institute will also serve as home to a proposed Energy Graduate Group providing advanced degrees in energy science, technology, and policy.

We can't predict the future, but we can create the knowledge base and develop a steady stream of world-class scientists, educators, and leaders to address society's most fundamental needs — just as we've done for more than 100 years.

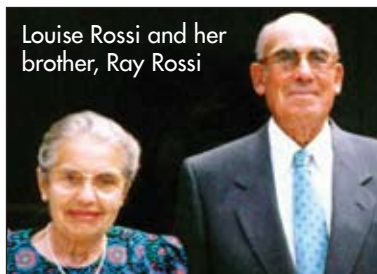
A LEGACY TO FINE WINE

Louise Rossi's \$12.5 million donation blends flavor with sustainability.

IN NOVEMBER 2007, UC Davis announced a \$12.5 million gift from the estate of Napa Valley native Louise Rossi to the campus's winemaking and grape-growing program.

The landmark gift from the sale of the family's 52-acre ranch will fund projects to improve sustainable production practices and to enhance the flavor of grapes and wine. Two faculty chairs will be named in honor of Louise Rossi and her brother Ray Rossi. The gift also increased the Rossi Prize endowment, which supports students. Additionally, equipment will be purchased for the Robert Mondavi Institute for Wine and Food Science (RMI). The terrace overlooking the RMI central courtyard, and a section of the teaching vineyard, will be named in their honor.

"Louise Rossi and her family so typified the spirit of California agriculture," said Chancellor Larry Vanderhoef. "We at UC Davis are quite



Louise Rossi and her brother, Ray Rossi

Ray, a UC Davis alumnus who died in 1997 at age 91, were longtime supporters of UC Davis through the Rossi Prize. They established the prize in 1979 to benefit viticulture and enology students from the Napa Valley, and to honor the memories of their parents, Fred and Rachel Rossi, and their brother, Arthur Rossi.

"Throughout her long life, Louise remained passionately committed to the art and business of winemaking and grape growing, and was fiercely proud of her family ranch's role in the history of the Napa Valley," said Elizabeth Leeds, one of Louise Rossi's longtime friends and co-executor for her estate.

"Louise's gift, which has been planned for many years, is intended to help build upon UC Davis' world-class wine-making and grape growing programs," Leeds said, "while honoring nearly a century of grape growing and winemaking by her family at the Rossi Ranch."

Louise Rossi arranged for the ranch to be sold to UC Davis alumnus John Williams, owner and winemaker of Frog's Leap Winery in Rutherford. "We are deeply honored and excited to be able to maintain and evolve this iconic farm," he said.

— Christine Schmidt

GIFT PLANNING TIP

A bequest is a simple gift planning tool. Through your will or living trust you can leave a specific sum or a percentage of your estate to benefit our college.

Your gift may be unrestricted, which will support the college's highest priorities, or you can designate a specific program. You may wish to establish an endowment or add to an existing fund. Every gift makes a difference.

To ensure that we can administer your gift according to your wishes, please specify in your estate documents that you'd like your gift to benefit the College of Agricultural and Environmental Sciences and indicate how you would like your gift used. Also designate the UC Davis Foundation, a California non-profit public benefit corporation (Tax ID 94-6081352), as the legal recipient.

Donors who include UC Davis in their estate plans may join the Peter J. and Carolee W. Shields Society and are invited to special events on campus.

For gift-planning help, contact Christine Schmidt, CFRE (530) 752-6414 cmschmidt@ucdavis.edu

Or go online: http://giving.ucdavis.edu/planned_giving.html

The Rossi vineyard



TOM HINDS/UC DAVIS

humbled to be the recipients of their quiet generosity and the beneficiaries of their many decades of hard work."

Louise Rossi oversaw the Rossi family vineyard operations until her death in February 2007 at age 99. She and her brother



BNB NorCal of San Mateo and Flad Architects of San Francisco were selected to design the Anheuser-Busch Brewing and Food Science Laboratory (above). The teaching and research winery, scheduled to open in 2010, will house the pilot plant, brewery, winery, and other hands-on spaces for teaching and research. They are the final pieces of the Robert Mondavi Institute for Wine and Food Science.

A TOAST TO GENEROSITY

Major donors fund a new laboratory and research winery at the Robert Mondavi Institute.

NEARLY 150 ALUMNI, FRIENDS, faculty, and industry and community partners have contributed more than \$35 million to build and equip the teaching and research winery and the Anheuser-Busch Brewing and Food Science Laboratory in the Robert Mondavi Institute for Wine and Food Science.

Generous support from private donors added to \$60 million in state and campus funds, making this \$90-plus million project a reality. The departments of Viticulture and Enology, and Food Science and Technology moved into the new academic buildings in the summer of 2008.

Students studying the craft of winemaking and brewing and food science will use state-of-the-art “green” equipment and technologies in a building designed to meet the standards of the U.S. Green Building Council’s (USGBC) Leadership in Energy and Environmental Design (LEED) Platinum certification.

— Melissa Haworth and Kathy Sachs-Barrientes

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Budweiser Clydesdales pull a beer wagon at the beginning of the ceremonial groundbreaking for the Robert Mondavi Institute's second building phase.



JOHN STUMBOS/UC DAVIS

POPPING THE CORK

Robert Mondavi Institute makes its debut during Fall Festival.

THE GRAND OPENING OF THE Robert Mondavi Institute for Wine and Food Science (RMI) on Oct. 10, 2008, will be remembered as one of the highlights of UC Davis' Fall Festival to celebrate the campus's centennial year.

Several hundred visitors toured the three new academic buildings that are now home to the departments of Viticulture and Enology, and Food Science and Technology, as well as the administrative offices for the institute.

After an official ribbon cutting for RMI, eight Budweiser Clydesdales pulling a beer wagon signaled the beginning of a groundbreaking ceremony (above) for the institute's second building phase. One of the two new buildings will house a teaching and research winery,

and the other will be home to the Anheuser-Busch Brewing and Food Science Laboratory. Construction of the buildings, estimated to cost \$16.5 million, is slated to begin in June 2009 with completion anticipated in 2010.

Ceremonially turning the soil with a giant-sized fork, corkscrew, and bottle opener during the groundbreaking were Doug Muhleman, group vice president of Brewing Operations and Technology at Anheuser-Busch, Inc. and a UC Davis alumnus; Charles Bamforth, chair of the Department of Food Science and Technology and the Anheuser-Busch Endowed Professor of Malting and Brewing Sciences; Tim Mondavi and Marcia Mondavi Borger, children of Robert Mondavi; Andrew Waterhouse, chair of

the Department of Viticulture and Enology and holder of the John E. Kinsella Endowed Chair in Food, Nutrition, and Health; Adrianna Gozza, a third-generation winemaker and a graduate student in the Department of Viticulture and Enology; and Natasha Stephens, an undergraduate student in the Department of Food Science and Technology.

Following the groundbreaking, all of the ceremony attendees were invited to tour the new facilities; participate in beer, wine, and olive oil tastings; and attend presentations by UC Davis alumnus, chef, and television personality Martin Yan, as well as by UC Davis faculty members Ann Noble and Charles Bamforth.

— John Stumbos

QUITE THE HONOR

Faculty, staff, alumni, and friends are recognized for their contributions to the college.

More than 500 people packed Freeborn Hall during Fall Festival on Oct. 10, 2008, to honor 12 recipients of the CA&ES “Award of Distinction” during the 20th annual College Celebration.

The award is presented annually to faculty, staff, alumni, and “friends” whose contributions and achievements enrich the image and reputation of UC Davis and enhance its ability to provide public service. The College Celebration ceremony is followed by a festive reception.

“We are pleased to be able to give these individuals the recognition they deserve, especially during the campus’s centennial year,” said CA&ES Dean Neal Van Alfen.

— John Stumbos

To learn more about the Award of Distinction recipients and College Celebration, check the news section of our college’s website at caes.ucdavis.edu.



DAWN SPINELLA/UC DAVIS

Pictured in back row are (left to right) Eddy Lee, Roderic Park, Richard Collins, Craig London, Neal Van Alfen, Kenneth McCorkle, and Dan Sehnert. Seated in the front row from left to right are Koichiro Aramaki, Chester McCorkle, Margrit Mondavi, Elizabeth Mok, and George Bruening. Richard Kunde not pictured.

Outstanding Faculty

George Bruening, a plant pathology professor who helped uncover genetic and biochemical mechanisms of resistance to plant viruses.

Outstanding Staff

Dan Sehnert, UC Davis animal science facilities coordinator and goodwill ambassador.

Outstanding Alumni

Koichiro Aramaki earned his master’s degree in food science and is now chairman of Kirin Holdings Company, Ltd.

Richard Collins earned a bachelor’s degree in agricultural and managerial economics and founded California Specialty Vegetables, the only major U.S. company that produces Belgian endive.

Richard Kunde earned a bachelor’s degree in viticulture and a master’s degree in horticulture, becoming a grape grower and major force in Sonoma County agriculture.

Brother and sister **Eddy Lee** and **Elizabeth Mok**, food science graduates who helped their family business, Lee Kum Kee Company, become a leading producer of sauces and condiments.

Craig London earned degrees in animal physiology and veterinary medicine, and has educated thousands of people about the Sierra Nevada through his Rock Creek Pack Station.

Kenneth McCorkle earned his bachelor’s and master’s degrees in food science and is a Wells Fargo bank executive who leads agribusiness executive seminars.

Friends of the College

Chester McCorkle, an agricultural economist, retired professor, and former CA&ES dean, who created the California Agribusiness Executive Seminar.

Margrit Biever Mondavi, with her late husband, Robert Mondavi, helped blend an appreciation of music, fine arts, and culinary arts with the California wine industry.

Roderic Park, a plant physiologist, UC administrator, vineyard proprietor, and chair of the viticulture and enology department’s Board of Visitors and Fellows.

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— Allison Chilcott

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AN EARTHY UNDERTONE

Viticulture and enology graduate helps a family winery go green.

FOR SARAH CAHN BENNETT, making good wine is a way of life.

Bennett grew up on her parents' Navarro Vineyards winery in the Anderson Valley in Mendocino County. Her parents, Ted Bennett and Deborah Cahn, started the vineyard in the 1970s with the perfect Gewürztraminer, Pinot Noir, and Chardonnay their main

viticulture and enology professor Doug Adams.

Adams' research into the development of tannins in the skins and seeds of red wine varieties was a good fit for her interests. Bennett and her fellow students collected wines from California, Oregon, and Washington and compared the phenolics of the wine, including the

the results of Bennett's assays to articulate what makes wine from their region unique.

Part of what Bennett believes makes Navarro Vineyards special is its commitment to sustainability. Along with avoiding the use of herbicides and pesticides on their land, Bennett has introduced a flock of Babydoll sheep to the vineyard. These miniature sheep have been extremely effective in controlling unwanted plant growth beneath the vines. The sheep, too short to do any damage to the fruit or vines, clean out sucker shoots



AARON CAHN BENNETT/NAVARRO VINEYARDS

Sarah Cahn Bennett relaxes in the family vineyard with her feathered friends.

objectives. As their business grew, so did their selection of fine wines. Riesling, Pinot Gris, and Muscat Blanc joined the lineup, and children Sarah and Aaron became part of the Navarro team. After earning a bachelor's degree in business administration from St. Mary's College, Bennett set her sights on a master's degree in viticulture and enology at UC Davis.

"Sarah knew exactly where she was going to go, exactly what she was going to do," said

tannins found in grapes and wine. Bennett then began to look at how that research could be incorporated into winemaking methods.

She now applies this knowledge to Navarro's selection of Pinot Noirs. Her research helps the winemaking process, and adds a scientific scale to taste and perception.

"We measure many of these wines so that we have real number comparisons between areas," Bennett says. Other Anderson Valley vineyards use

"Sarah knew exactly where she was going to go, exactly what she was going to do."

and weeds that would otherwise be very difficult to reach.

Bennett and her family believe that sustainability stretches further than the field. Navarro Vineyards is committed to employment practices that establish loyalty and a sense of ownership for their workers. All Navarro Vineyards employees are full-time members of the company with full benefits.

Bennett recognizes the advantages that her time at UC Davis gave her. "I feel like I now know a good portion of the people in the industry," she says. "I always knew I wanted to be in the wine industry. UC Davis was the perfect opportunity to help make that happen."

— Elisabeth Kauffman

MAKING A GRAND ENTRANCE

CA&ES alumnus to design GATEways project in campus arboretum.

AFTER A NATIONAL SEARCH, the firm of award-winning landscape designer Ron Lutsko, Jr. (B.S. '77, plant science; B.S. '80, environmental planning and management) has been selected to design an extensive renovation of the 100-acre UC Davis Arboretum.

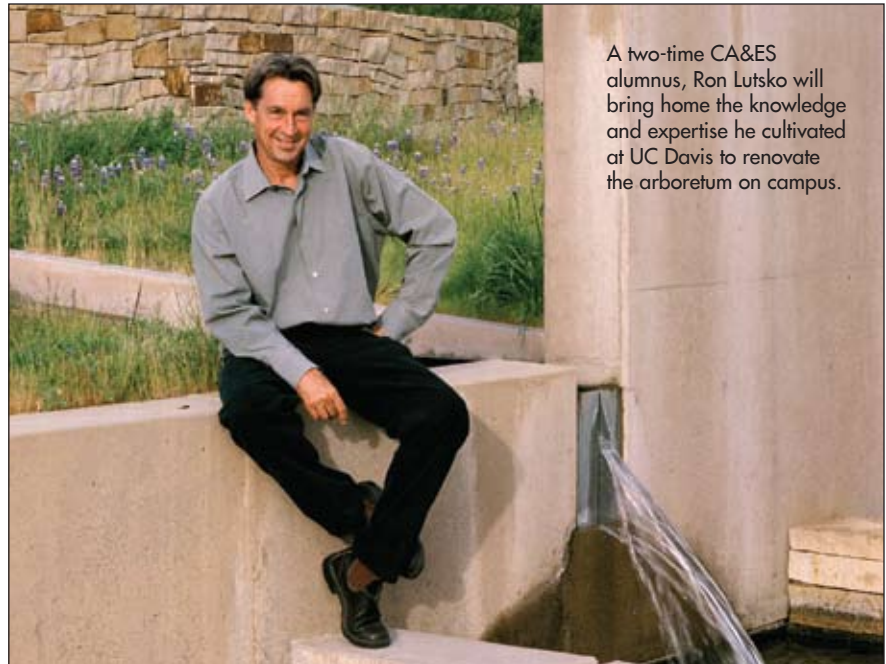
“Ron’s firm — Lutsko Associates, landscape — has a stellar reputation for combining modern garden design with ecological principles and for expertise in California plants and landscapes,” says arboretum director Kathleen Socolofsky. “His designs stress harmony with the surroundings and are compatible with sustainable resource use.”

The project — GATEways (Gardens, Arts, and the Environment) — will include three new entryways into the arboretum that showcase the creative work and spirit of inquiry at UC Davis. In early 2009, Lutsko’s team will begin conceptual design work on unifying elements in the arboretum, such as waterways and bridges, teaching gardens and plant collections, outdoor classrooms and performance spaces, benches and seating areas, water fountains, shade structures, and public art.

As a student, Lutsko’s interest in native plants and natural systems drew him first to botany and then to environmental horticulture. In his senior year he loaded up on landscape architecture classes to satisfy a yearning for creative expression.

Upon graduation, Lutsko moved to the Bay Area and started designing and building gardens. “After about six months, I realized that digging trenches wasn’t the part for me,” he said. “It was ecosystems and designs.”

Lutsko returned to UC Davis to



A two-time CA&ES alumnus, Ron Lutsko will bring home the knowledge and expertise he cultivated at UC Davis to renovate the arboretum on campus.

study with his mentor, landscape architecture professor emeritus Rob Thayer. “Ron was one of the brighter and more optimistic students, and that upbeat attitude carried over into his studies,” Thayer said. “Because he was a returning student with a previous degree, he brought a maturity to the landscape architecture program that put him at an advantage from the get-go.”

In 2002, Lutsko designed the arboretum’s redwood grove renovation. Decomposed-granite pathways now wind through the towering giants and amid dozens of new shrubs, perennials, and groundcovers. A gathering circle with low seating walls and a small water fountain — reminiscent of a spring box — is another new feature.

“Water is such a crucial part of the redwood forest plant community,” he said. “It seemed important to include it in the design to communicate what it takes for a redwood forest to grow.”

Lutsko’s nontraditional approach

typically incorporates local ecology with regionally appropriate materials. “I’m far less interested in making landscapes look historical,” he says. “I seek materials that can make a statement about current circumstances, so I’m more likely to use industrial slag fly ash concrete in a project than limestone imported from Italy.”

His designs have been featured in popular garden design magazines, academic journals, and books. The “Ketchum Residence” in Idaho won the firm a 2008 award of excellence in residential design from the American Society of Landscape Architects.

“What we want to do with the arboretum is enhance its connection to the campus,” Lutsko says of the GATEways project. “We hope to transform it in a way that keeps people in touch with the environmental and cultural values at the core of UC Davis.”

— John Stumbos

1960s

Max "Kip" Herzog

1960, ANIMAL SCIENCE

Kip received a national award for his career in cattle breeding (Holstein Association USA's 2008 Elite Breeder Award). The dairy herd at UC Davis has genetics from Herzog's outstanding milk-production herd (Sleepy Hollow Dairy). Kip and his wife, Marilyn, live in Petaluma, Calif.

1980s

Mark Munson

1986, ENTOMOLOGY;
PH.D., 1993, MICROBIOLOGY

Mark is a contractor for the Navy's Biological Defense Research Directorate, developing PCR-based assays for the detection of biological warfare agents in Silver Spring, Md. He spent nine years in the United Kingdom doing postdoctoral work

at the British Museum of Natural History and Guy's and St. Thomas's Dental School before returning to the U.S. in 2002.

1990s

Saud L. Al-Rowaily

1990, PLANT SCIENCE

Saud is on the faculty at King Saud University in Riyadh, Saudi Arabia. Following UC Davis, he got a master's and doctoral degree in range science at Utah State University. Saud is married and has a daughter, Sarah, and two sons, Faris and Misha'al.

Joseph Crusoe Kumapley

M.S., 1991, INTERNATIONAL
AGRICULTURAL DEVELOPMENT

Joseph is a development banker in Accra, Ghana. He was a Hubert H. Humphrey Fellow here in 1988–89 and cherishes his memories of UC Davis in agronomy, economics,

and applied behavioral sciences. Joseph is proud to be an alumnus of this world-class university.

2000s

Melissa Borrelli

2001, ENVIRONMENTAL POLICY
ANALYSIS AND PLANNING;
JD, 2005, SCHOOL OF LAW

Melissa is an attorney with Hanson Bridgett in Sacramento, Calif., working in the area of estate planning, business, and taxes. She and her husband, Scott Borrelli, are parents of Matthew and Sophia.

We'd like to hear from you. Take a moment to drop us a note at outlook@agdean.ucdavis.edu or online at www.alumni.caes.ucdavis.edu.

In Memoriam

Fredrick T. Addicott

PROFESSOR EMERITUS
PLANT BIOLOGY
September 2008

Richard Bohart

PROFESSOR EMERITUS
ENTOMOLOGY
February 2007

G. Eric Bradford

PROFESSOR EMERITUS
ANIMAL SCIENCE
July 2007

Samuel A. Hart

PROFESSOR EMERITUS
BIOLOGICAL AND
AGRICULTURAL ENGINEERING
September 2008

S. Milton Henderson

PROFESSOR EMERITUS
BIOLOGICAL AND
AGRICULTURAL ENGINEERING
March 2008

F. Howard Kratzer

PROFESSOR EMERITUS
AVIAN SCIENCES
October 2006

A. Doyle Reed

COOPERATIVE EXTENSION
SPECIALIST
AGRICULTURAL ECONOMICS
December 2006

Victor Rendig

PROFESSOR EMERITUS
SOILS AND PLANT NUTRITION
November 2006

Arnold "Rosy" Rosenwald

COOPERATIVE EXTENSION
SPECIALIST
POULTRY PATHOLOGY
January 2008

Kenneth Tanji

PROFESSOR EMERITUS
LAND, AIR AND WATER
RESOURCES
September 2007

John M. Tucker

PROFESSOR EMERITUS
PLANT BIOLOGY
July 2008

Kiyoto "Kay" Uriu

PROFESSOR EMERITUS
POMOLOGY
May 2008

William Wildman

COOPERATIVE EXTENSION
SPECIALIST
SOIL SCIENCE
April 2007

Shang Fa Yang

PROFESSOR EMERITUS
PLANT SCIENCES
February 2007

George York

COOPERATIVE EXTENSION
SPECIALIST
FOOD BACTERIOLOGY
January 2008

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DEAN'S CIRCLE



CA&ES Dean's Circle members (and siblings) Gail Hollingsworth and Jack Pearlstein in their Half Moon Bay nursery.

PEARLSTEIN SUPPORT STARTED AT UC DAVIS

In 1941, Carl and Virginia Pearlstein started what would become Nurserymen's Exchange, one of the country's leading wholesalers of potted plants. Inside their San Francisco apartment, the Pearlsteins stored flower bulbs in the bathtub, grew mushrooms under the bed, and harvested vegetables on the fire escape. Eventually, all three Pearlstein children — Jack, Gail, and Kitty (and all seven Pearlstein grandchildren) — would work in the family business.

Carl Pearlstein, who passed away in 1998, studied agriculture at UC Davis in the 1930s. It was the beginning of a lifelong relationship between the family and the College of Agricultural and Environmental

Sciences. The Pearlsteins strongly support the research and leadership of the college. Longtime members of the Dean's Circle, they believe unrestricted funds give the best value.

"UC Davis makes it happen for the family farm," says Jack, who is CEO of the business and also a member of the Dean's Advisory Council. "Whether it's invasive species, food safety, water conservation, pest resistance, or new agricultural methods, the college is California's best resource."

"Who knows better than some of the most gifted scholars in the world," Gail adds, "what research will get the greatest results."

— Dawn Spinella

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