

# TALES AND TRAILS



Department of Animal Science    University of California, Davis    Davis, California 95616    (916) 752-1250

## Animal Science Alumni Survey

by Chancellor Emeritus James H. Meyer

As a part of my interest in re-thinking teaching responsibilities of colleges whose historical roots were in agriculture, a study of alumni activity, opinion and suggestions was considered an important adjunct to that interest. A survey of the alumni of the Animal Science department who graduated between 1956 and 1987 resulted in a questionnaire reply from 680 alumni who graduated during that period of time.

### WOMEN

Some significant changes have occurred among the alumni. The number of students graduating in Animal Science has increased approximately six-fold from the 1950's to the 1980's. Women now compose fifty-two percent of the alumni, which is expected to increase with the passage of time. In the late 1950's, twelve percent of the alumni were women and gradually increased to seventy-one percent women in the 1980's graduating classes. Seventy-seven percent of the students seeking advanced degrees were women, which would indicate the proportion of women will greatly increase among veterinarians, primary or secondary school educators, college instructors, researchers or extensionists, and physicians, dentists or lawyers, since these careers are based to a large extent on advanced degrees. Furthermore, with seventy-one percent of recent graduates as women, one would expect increases in women in all career categories. At present, for example, approximately half of the farm or ranch owners or managers are women. Women are owners or managers of dairy and other livestock operations, but dominate as horse ranch owners or managers.

### ANIMAL SCIENCE ALUMNI CAREERS SELF-IDENTIFIED

CAREER	First Career %	Current Career %	Career Satisfaction %
Veterinarian	14	18	85
Laboratory Scientist	26	15	69
Business Owner or Manager	7	15	88
Ranch Owner or Manager	6	8	82
School Teacher	4	5	68
College Professor, Research or Extensionist	2	5	97
Government or Military	4	4	77
Salesperson	6	4	67
Homemaker	1	4	79
Doctor or Lawyer	1	4	91
Student	3	8	82
Miscellaneous	9	10	63

## ADVANCED DEGREES

What must be emphasized is that alumni, to a significant extent, have not only a bachelor's degree in Animal Science, but also have obtained an advanced degree, teaching credential, master's degree, Ph.D. or professional doctorate. Overall, sixty-one percent of the Animal Science alumni have attended graduate or professional schools in California or throughout the nation. On the other hand, a high proportion, forty percent, have not obtained an advanced degree, but have embarked on very successful careers.

Forty-six percent of most advanced study was for a professional doctorate, primarily in veterinary medicine, but with a significant number entering medical, dental or law schools. Thirty-two percent of those receiving advanced degrees completed their educations with a master's degree. Eight percent of those with advanced degrees received a Ph.D. Their careers were in four major areas: college instructor, researcher or extensionist, laboratory or medical scientist, and continuing as students, primarily as postdoctorates.

## CAREERS

Current careers of Animal Science alumni are varied, indeed, showing the Animal Science major's flexibility to many career pathways. Approximately half of the alumni are in three careers: veterinarian, laboratory or medical scientist, and business owner or manager, with most of the latter in careers unrelated to animals. Ranch owners or managers compose about eight percent of the alumni, while another eight percent of the alumni are still students seeking advanced degrees.

A major shift between first career position and the second career position was found in laboratory or medical scientists. Twenty-six percent chose this field as their first career, but eleven percent changed to other careers. Examination of the alumni replies indicated that many alumni worked in laboratories for a few years before pursuing advanced degrees. The number of business owners or managers increased over time, indicating that time is needed to accumulate resources or experience in order to pursue that career. The breakdown of owners and managers showed fields of endeavor ranging from real estate to sales, general business managers, accounting, truck owners, and so forth, with little or no involvement with animals except as an avocation for many. Other careers chosen by alumni included primary or secondary educator, government or military employment, salesperson, homemaker, physician, dentist or lawyer, and secretarial or clerical. In many cases, especially homemakers, a significant number of those in careers not

related to the animal sciences, have or plan to have as an avocation, animal enterprises ranging from livestock to horses to companion animals.

Most of the alumni are very satisfied with their careers, especially those working for colleges or universities. Eighty-six percent of those where the Animal Science major was relevant to their careers were very satisfied, yet, about seventy percent, where Animal Science was not relevant to their careers, were also very satisfied with their careers.

My conclusion is that the major in Animal Science is a sound major in terms of student numbers and alumni with successful careers. There are, however, concerns and issues which need to be addressed to ensure that successful teaching programs meet the needs of students and alumni for the 21st century. I am planning to report to you in a subsequent issue, opinions and suggestions of Animal Science alumni for improvement in University education, specifically improvement in the Animal Science curricula.

## Meyer Hall Formally Dedicated

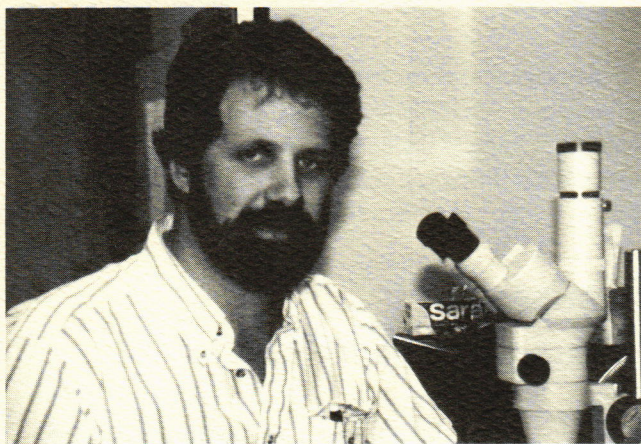
The James H. Meyer Hall was formerly dedicated on April 15, 1989, named for Chancellor Emeritus Meyer who presently has an office within the building. The \$41 million Food and Ag Building houses four departments: animal science, avian science, environmental toxicology and nutrition. Meyer Hall consists of two four-story buildings connected by an attractive courtyard and glass-walled pedestrian bridges, covered by an airy, fiberglass canopy. An open house of the offices and labs was held directly after the dedication ceremony.



## Jim Murray Joins Animal Science Faculty

In April of this year, Dr. James (Jim) Murray began a new faculty position as Associate Professor and Animal Geneticist. His appointment is split 60%/40% with the departments of Animal Science and Veterinary Medicine, Reproduction. Dr. Murray completed his education at Macquarie University in Sydney, Australia, earning his Ph.D. while on a Fulbright-Hays scholarship. He served 9 years as a research scientist at the Commonwealth Scientific Industrial Research Organization in Australia before joining the academic staff at UCD. At the CSIRO, Dr. Murray's genetic research was directed towards making more efficient wool-producing sheep.

Dr. Murray will be teaching cytogenetics, the study of chromosome structure and function. His research will concentrate on transgenic animals. His current work involves learning to manipulate lactation-related genes in mice. If successful, when applied to dairy cows, milk with less fat, lactose, or milk more suitable for cheese or yogurt could eventually be produced.



## COWBOSS PROGRAM FOR HERD MANAGEMENT

Animal Science Extension Specialist Steve Berry and programmer Abbas Ahmadi have developed a comprehensive and highly useful computer program for cattle herd management. The "Cow Boss" Program, applicable to commercial and purebred cattle producer needs, provides for total herd/ranch management and analysis. The program's unique features allow for broad flexibility in data generation and operations analysis.

## 30 Years of Service

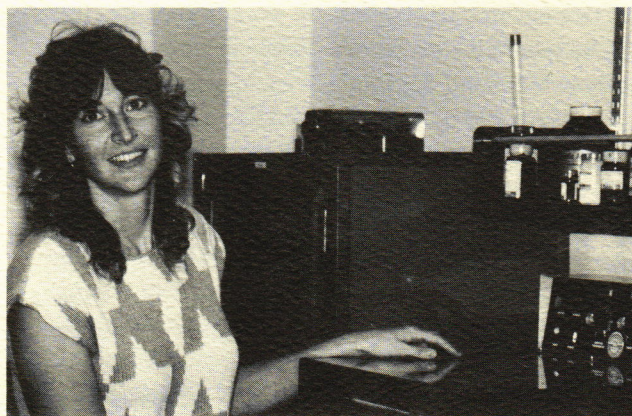
Long-term staff employee, Art Aguirre, retired at the beginning of the year. He spent the majority of his time as a Staff Research Associate III performing laboratory analyses required to define nutrient quality. In addition, Art participated in the daily operations of the nutrition laboratory and taught students the laboratory practices required for successful completion of their specific research efforts.

## New Faculty Addition: Anita Oberbauer

Dr. Anita Oberbauer joined the Animal Science department as Assistant Professor and Cellular/Molecular Biologist in July of this year. She received her B.S. in Zoology at UCD and her Ph.D. in Animal Science from Cornell.

Raised in El Cajon, California, Dr. Oberbauer's interest in animals developed with encouragement from her family. As a youth, she participated in the 4H and FFA organizations, showing sheep and beef.

One of Dr. Oberbauer's first goals as a new professor at UCD is to develop a graduate level course in cellular and molecular growth, which directly corresponds to her research. "My research objectives deal with factors that regulate longitudinal bone growth. Specifically, I am interested in the interaction of growth factors and hormones with the cells of the epiphyseal growth plate, the site responsible for longitudinal growth." By studying this interaction at the cellular level and identifying genes that are induced at the molecular level, Dr. Oberbauer can apply this knowledge to market animal production. The relationship between muscle and bone development factors greatly in the efficiency of the animal, this being especially apparent in larger framed animals.



## STAFF SPECIAL PERFORMANCE AWARDS

Computer-related accomplishments led to Staff Special Performance Awards for three of four employees this year. Programmer Abbas Ahmadi contributed valuable Extension activity programs, including COWBOSS, OPTIMUM, and Aladdin. Sandra Kristensen, a programmer for Drs. Touchberry and Fadel, analyzed and summarized a wide variety of project data. Sandra also provides programming assistance to other faculty and department staff as needed. Ann Day received a Special Performance award for her outstanding operation of the department's accounting system, a setup she developed several years ago to juggle nearly 200 accounts totalling several million dollars. Ann supervises and manages the Business Office, its primary functions involving purchasing, payroll, travel expenses and the budget. Daniel Kominek was awarded a Special Performance Award for assisting with Animal Science classes, for his expert handling of livestock as a herdsman, and for his assistance with a variety of tasks, including computer use at the feedlot, animal surgeries, and back-up facility supervisor.

## Faculty Profile: Edward Price

In his 23 years as a University professor, Dr. Edward O. Price has published approximately 75 journal articles and recently edited a book entitled Farm Animal Behavior. He is a past president and Fellow of the Animal Behavior Society and earlier this year he became an associate member of the Farmhouse Fraternity.

Dr. Price graduated from the College of Wooster, Wooster, Ohio, with a bachelor's degree in psychology. After an additional year of study in the natural sciences, Dr. Price decided to do graduate work in zoology. In 1963, he received a bachelor's degree in zoology from Michigan State and his Ph.D. in zoology four years later. He says, "Animal behavior seemed like a logical career for someone interested in psychology and zoology."

In recent years, Dr. Price's research has concentrated on developing an improved technique for fostering "extra" lambs on ewes. The technique he has been researching has been called odor transfer and involves transferring own-lamb odor to the alien lamb via a nylon orthopedic stockinette originally worn by the ewe's own lamb. It is easier to persuade a ewe to adopt an alien lamb if it



smells like her own lamb. "With ranchers electing for larger litter sizes, the need for improved fostering techniques is greater than ever," says Dr. Price. "The process is inexpensive (\$.40-.50 per jacket) and most importantly, ranchers are not at all reluctant to give it a try."

Dr. Price's current research concerns the development of sexual behavior in bulls and rams and maternal behavior in sheep with an ultimate objective of being better able to predict their mating capabilities. Because many bulls and rams lack sexual interest, he states, "It would be ideal to predict adult mating ability before the animal has reached sexual maturity, that is, before a lot of money and time is spent in raising the animal."

In January, Dr. Price will be going to the University of Melbourne in Australia for 7 months as part of the UC Pacific Rim Faculty Exchange Program. While in Australia, Dr. Price will research maternal behavior in pigs.

### LOI DOSSA:

### PURCHASING "POWER-PUFF"

When truckloads of shipping boxes arrived to the then un-named Meyer Hall, a little over a year ago, the Animal Science department's Aloha (Loi) Dossa was first on the loading dock scene to oversee their distribution. With a physical height of not much, if any, over five feet, Loi assumed command and directed movement of the goods. As primary purchasing agent for the Animal Science department, Loi was on her size 5 feet eight hours daily, checking in furniture and lab equipment for the wet and dry laboratories and administrative offices, while other staff and faculty were reconnecting their computers, hanging pictures on their new office walls, and pinching broken leaves off their recently moved plants.

Mrs. Dossa has been employed in the Business Office for many years.

## Alumni Profile: Bill Borrer

When Bill Borrer came to UC Davis in 1951, he didn't know what he would do when he graduated. Davis was a different place in the early fifties. Harold Cole was the Animal Science Department Chair, and Jim Meyer was Bill's advisor. With only 1250 students at Davis, the campus was relatively close-knit. The percentage of women attending the University was very small. Bill remembers his first dance at Davis in the old shingled Rec Hall (now Freeborn). "Since there were a limited number of girls, the junior and senior boys had a monopoly on them."

While a student at Davis, Bill took many memorable courses, but three stuck with him: Milk Production taught by R.C. Laben, Reproductive Physiology with Perry Cupps and Feeds and Feeding with William Weir. "They gave me the basic fundamentals that I still use today." As an upper classman, Bill became more involved in the departmental activities, including the first judging team since the 1930's.

When near graduation, Bill spoke to his advisor about potential careers. Many of his peers were going to vet school. "Meyer encouraged me to go back to the family farm," he says. "I guess it was good advice--I wouldn't have made a very good vet anyway."

Bill's father bought 975 acres in 1948, in Gerber, California and moved there with 75 mixed commercial and registered Angus cattle. Bill and his wife, Sandy, began work at his parents' ranch in 1958 with approximately 100 mother cows. The herd soon increased, a marketing strategy was developed, and the Tehama-Angus Ranch became a reality. In 1959 the sale of five bulls brought in about \$1,750.00, and in 1975 the bull sale began as an annual event. This year the sale took place on September 22, and 98 bulls were sold for an average price of \$3208.00. Over the years, some additional land has been purchased, and other farming ground is being leased for the production of almonds, sugar beets, alfalfa, dry beans, wheat and corn; but the primary crop is still Angus cattle.

Bill says, "From the beginning my basic philosophy has been to breed bulls that fit the needs of the commercial cowherds of the Western U.S. Purebred breeders have had a tough time keeping focused on these needs as they generally use single trait selection to achieve their goals evaluated by visual appraisal." Bill avoids this pitfall by not breeding for extremes and by putting an emphasis on selection for balanced traits. Bill has written articles on bull selection and expected progeny differences. He

measures the success of his breeding program by using a strict performance program that yields a quantitative evaluation.

Bill Borrer is in his fifth year as a member of the State Board of Agriculture and, in addition to being a member of the Beef Improvement Federation, he was named Seedstock Producer of the Year in 1983 and was president in 1984. He is currently Chairman of the Long Range Planning Committee of the California Cattlemen's Association.

When asked about his future plans, he states, "A guy gets kind of tired of cattle until he has a successful bull sale; then he wants to stay in the business a while longer." Retirement has crossed his mind. Two of his four sons work on the ranch and are doing a great job, but Bill isn't ready to let go quite yet.

According to Bill, the best thing about his education at Davis is that "they taught us how to think--not just how to play around with data. If you're going to compete in this world, you have to think of innovative ways to handle the challenges that we face."

## SR-CRSP Recommended for Additional Funding

Ten U.S. institutions, including UC Davis, currently participate in the Small Ruminant Collaborative Research Support Program, SR-CRSP. A combination of specialties: economics, genetics, physiology, production systems, range science, sociology, systems analysis and veterinary medicine have been carried out in five countries, with at least four disciplines included in the program for each country. The programs not only conduct research, but also develop information and train extension workers and producers.

After an in-depth review, the Board for International Food and Agriculture Development unanimously recommended the program for an additional five years of funding (1990-95) from the U.S. Agency for International Development (USAID). The plan for the next five years involves substantial redirection and emphasis on new areas, and may involve work in new countries.

Dr. Eric Bradford, professor in the Animal Science department, manages the UC Davis Breeding Program in Morocco and Indonesia. Involved since the SR-CRSP's inception in 1978, Dr. Bradford visits each country approximately once a year to aid in setting up a functional

research program in an area where his expertise is needed.

The Small Ruminant CRSP is invaluable to the developing countries participating in the program. Funds from SR-CRSP projects in the department of Animal Science and the School of Veterinary Medicine have also contributed to the development of the UCD Dairy Goat Teaching and Research Facility and have provided support for training of Animal Science graduate students from the U.S. and seven developing countries.

## **WSMA Award for Ken Ellis**

Animal Science Extension Specialist Ken Ellis was this year's recipient of the prestigious Western States Meat Association (WSMA) E. Floyd Forbes Award. At the WSMA Annual Convention, Saturday, April 15, 1989, Ellis was praised for his long-term Extension career that has included serving as key resource and advisor to livestock and red meat groups in California.

Ellis was a major contributor to research programs concerned with marbling and bone maturity relationships in beef carcasses which resulted in major changes in USDA beef grading standards.

He was an active founding member of WSMA's Science and Education Advisory Committee (SEACOW), has served for many years as technical advisor to WSMA's Board of Directors and Beef Committee and is well respected for his professionalism and effective leadership.

## **Graham Gall Receives CAA Award**

Dr. Graham A.E. Gall, Professor of Animal Science, was presented with the Distinguished Service Award by the California Aquaculture Association at their annual meeting in February. He is the fourth person to be recognized in the history of the association for his outstanding contributions to California's aquaculture industry.

Dr. Gall has provided invaluable information in fish genetics and animal breeding programs to fish farmers throughout the state and western region.

He has been an integral part of the University's outreach program in providing aquaculture information to the state's aquaculture community through industry-oriented seminars, workshops, and other University support programs. He is especially noted for inspirational teaching of undergraduate and graduate students, and his ability to instill a work ethic among his students that leads to high performance when they enter their professional careers.

## **FRANK MURRILL RETIRES**

Cooperative Extension Specialist Frank Murrill retired September 1, 1989 after many years of valuable service. In 1968, Frank Murrill was appointed as a state extension dairy specialist with primary responsibility for the state Dairy Herd Improvement Association (DHIA) program. He has led the DHI records program from a punch card and hand calculating system to a fully computerized system. In 1976, Frank conducted the first on-line computer demonstration of the DHI program for dairy herd management and has been very active in promoting the use of personal computers in dairy herd management.

A retirement dinner was given for Frank in August and included presentations by his associates in recognition of his years of outstanding and dedicated service to the dairy industry.

## **Little "I" International Livestock Show**

The Little "I" show, held in the UCD Cole arena, was sponsored by the Block and Bridle Club. The event was dedicated to Chancellor Emeritus James Meyer in honor of his many years of energy and concern for the students at this University. Dr. Tom Famula served as Master of Ceremonies and the Chairperson of the event was Mary Biesiadecki.

Approximately 50 students, in six classes, were rated by local judges. The exhibitors had no prior experience with the species of animal that they chose to show, and worked hard under the guidance of group leaders to learn how to handle, groom and show their animals in less than three months. The dairy and the beef heifer groups had to halter break their animals as well.

## **Ag Science Field Day**

Over 2000 FFA and 4-H high school students from all over the state participated in 24 contests at the Ag Science Field Day held March 4.

The Livestock Judging Contest was coordinated by Laurie Erdman and Julie Johnson, and the Dairy Cattle Judging Contest was coordinated by Mary Biesiadecki and Sandy Foster. Both contests qualified for the state finals.

## **Ginny Landry Memorial Bench**

On Sunday, May 21, 1989, family and friends gathered together to honor the memory of Ginny Landry-Wayman by dedicating a bench located on the southwest side of Meyer Hall in her name. Landry-Wayman was a UC Davis Animal Science undergraduate student very prominent in departmental activities. She died August 7, 1987. Heartfelt thanks to all who contributed in her memory.

## **Student Awards and Accomplishments**

### **1988/1989 Awards**

Greta Breedlove Ross Scholarship  
**Richard Atherley**

California Cattlemen's Association  
Achievement Award

**David Bennett**  
**Mary Biesiadecki**  
**Sheila Gaertner**  
**Dan Macon**  
**Matthew Sween**  
**Paul Wallace**

Carl L. Garrison Scholarship  
**Jennifer Boutilier**  
**Juliet Bryant**

Elizabeth Graves Hosselkus Scholarship  
**Carol Gabrielson**

Oskar Lang Memorial  
**Christine Damico**  
**Kent Buhler**

Tom Mead Dairy Award  
**Susie Nugent**

Mary Regan Meyer Prize  
**Sheila Gaertner**

Departmental Citations  
**Barbara Caldwell**  
**Sheila Gaertner**

Leadership Recognition of Outstanding Seniors  
**Mary Biesiadecki**  
**Barbara Caldwell**  
**Sheila Gaertner**  
**Kathy Kero**  
**Richard Scholten**  
**Paul Wallace**  
**Elizabeth Watson**

## **American Society of Animal Science Recognition Awards**

### **Seniors -**

**Richard Atherley**  
**David Bennett**  
**Barbara Caldwell**  
**Raymond Doty**  
**Sheila Gaertner**  
**Diana Hassel**  
**Kathy Kero**  
**Nancy Lewis**  
**Matthew Sween**

### **Juniors -**

**Juliet Bryant**  
**Carol Gabrielson**  
**Morgan Robertson**

### **Sophomores -**

**Jennifer Boutilier**  
**Christine Damico**  
**Kim Rubera**  
**Lara Schneider**

### **Animal Science Stud Farm Management Internship**

**Cynthia Binder**  
**Kristen Bowie**  
**Lynnda Donat**  
**Haidee Hewitt**

**Terri Roth** was awarded first place in the Graduate Student Competition Paper Awards at the 1989 meeting of the International Embryo Transfer Society. The title of her master's thesis paper was "Survival of Sheep x Goat Hybrid Inner Cell Masses After Injection into Ovine Embryos."

**Jo May Chow's** master's thesis paper, "Effect of Rumen-Protected Methionine and Lysine on Casein in Milk When Diets High in Fat or Concentrates are Fed," took third place at the ASAS/ADAS joint meeting.

## **Recent Graduate Accomplishments**

**Larry S. Katz**, a former student of Ed Price who received his Ph.D. in the Animal Science Behavior Graduate Group, has been hired as an Assistant Professor in the Department of Animal Science, Rutgers University.

A Ph.D. student of Graham Gall's, **Christopher Bidwell**, has been hired as an Assistant Professor in the Department of Animal Science at Purdue University. His area of specialization is molecular genetics, particularly in the area of reproduction of fish.

**Frank Chapman**, a student of S.I. Doroshov, has begun an Assistant Professorship in the Department of Fisheries and Aquaculture, University of Florida.

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## PROFESSIONAL MASTER'S PROGRAM IN ANIMAL SCIENCE AND MANAGEMENT

**DIRECTOR NEEDED:** The UCD Animal Science department seeks a leader for the Master's Degree Animal Science and Management (MAM) Program to be responsible for teaching a graduate course, Animal Production Systems and Management, and to coordinate and administer a program of independent research and/or internship for graduate students. As Senior Lecturer, the individual will be responsible for the admissions and advising program and for fostering the development of management programs with the Cooperative Extension Service and animal industries in California. A record of scholarly training, high-level managerial experience, communication skills, documented competence in classroom instruction and related activities is required. Applications, CV, and names/addresses of 3 references should be sent by 1/1/90 to: James H. Meyer, Search Committee Chair, Department of Animal Science, UC Davis, CA 95616. (Tel. (916) 752-1264) E.O.E.

**PROGRAM APPLICANTS:** Student applications are being accepted for the newly-designed Master's program (fall, 1990), offered jointly with the Graduate School of Management. The purpose of the program is to prepare professionals for high-level management in animal industries, combining technical and scientific education in management. Included is either independent research or internships. Contact James H. Meyer at the above address for more information.

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Animal Science Department  
University of Califo  
Davis, California 95616  
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