The Animal Science Department is completing plans for a new Animal Nutrition Center to replace the existing facility that has been in use for more than 60 years. The new facility is part of a relocation project to move the existing feed mill, beef center, meat processing center and beef feedlot to make room for an extensive student housing complex on campus.

The Animal Nutrition Center will be a key addition to the department. The feed mill will include new technologies such as allowing diets to be double-ground for uniform particle size; portion control to allow small batch sizes; and a conditioning system for evaluating heat, steam and pressure on feed additives such as enzymes.

Students will have the opportunity to learn and train for a career in the feed industry in a modern processing facility.

“The California feed industry is in constant need of young people who have an understanding of animal nutrition, feed processing, and production management,” said Dr. Andy Thulin, Animal Science Department Head. “This new facility is critical for hands-on student training for the feed manufacturing industry and will serve as a vehicle to expose students to the many opportunities that exist in the industry in California.”

The new center will set a standard for industry training. An opportunity to showcase equipment, systems and processes to the feed industry is another benefit the center will provide. Plans for the center include using name-recognized equipment. Along with a modernized feed mill, the center will also provide an ideal location to conduct industry short courses and expand applied research efforts within the animal nutrition industry, Thulin said.

The design of the new mill was based on the following concepts: to serve as a hands-on training center for students and industry groups; to facilitate easy product change over; use full-size industry recognizable equipment; be able to manufacture specialty diets for animal research; serve as a testing facility for biotechnology companies involved in research with enzymes, probiotics, etc.; and provide feed products for University livestock.

The new feed mill will replace and upgrade several components of the current feed mill, Thulin said. The new feed mill will include bulk ingredient receiving, bin and flat storage; coarse grinding and cracking; ingredient mixing, meal and hay rations; fine grinding, pelleting and finish coating; and bulk load out and packing. There will be a separate system for ruminant feeds including a stationary mixer and delivery truck transportation.

“The facility will allow students to take part in all segments of the nutrition industry,” Thulin said. “Some will learn how to produce diets for all types of species including beef, equine, poultry, swine and companion animals. Others will prepare research diets that will significantly contribute to advancing the animal nutrition industry.”

The estimated cost for the center is $5 million. The University received $2 million from the state and $1 million from a California class action methionine settlement. Cal Poly is looking to partner with the feed industry to raise the last $2 million. -p
As the fall quarter comes to a close and preparations start for spending the holidays with family and friends, I cannot help but realize how very thankful we must be for the outstanding students, faculty, staff, alumni and friends of the Animal Science Department. On the following pages we have captured for you just a few examples of their exceptional talents, abilities and leadership.

Equally critical to this team effort are the Department’s alumni, friends and allied industry partners. Their advice and support allows us to improve our facilities, operate our diversified production units, and provide our students with a high quality “Learn by Doing” foundation for their successes.

I’m excited for the Livestock and the Equine judging teams, both of which have had a successful fall in national competitions, after a couple of years of struggling to get teams and coaches in place (see attached article). As I write this article, we learned that the Equine Judging Team captured second place at the National Reining Horse Association’s national competition. The Equine team will build on these recent successes, especially with firm coaching commitments from Joel Judge and Pete Agalos for the next few years.

As an update from my last article, the relocation of the Animal Science Department’s facilities is the largest challenge we have faced in over 50 years. Seeking additional funding to complete the new Beef Center, Animal Nutrition Center, and Meat Processing Center is our highest priority. I am pleased to report that we have received over $1.5 million of the $4.0 million needed to complete these three projects. Construction of the Beef Center started in November and we are in the final design phase for the Animal Nutrition Center, which will go to bid in early February. We will then focus on designing a state-of-the-art Meat Processing Center that will comply with USDA requirements.

From our Animal Science family to yours, we hope you enjoy a wonderful holiday season and a healthy, happy and prosperous new year!

For more information on how you can help, please e-mail me at athulin@calpoly.edu or call (805) 756-2419. Updates regarding the relocation of the different facilities can be found at www.animalscience.calpoly.edu.

Judging teams rank high in national competitions

Cal Poly’s Livestock Judging Team placed 11th out of 30 teams at the 100th North American International Livestock Exposition in Louisville, Ky. The NAILE is the national championship contest for collegiate livestock judging.

“It’s a great opportunity for students to evaluate high-quality livestock and meet people who really enjoy working with the youth in agriculture,” team coach and graduate assistant Forrest Mangan said.

Cal Poly team member Brady Cerda placed 11th in the individual overall competition.

The Cal Poly Equine Judging Team placed ninth out of 24 collegiate teams at All American Quarter Horse Congress. The world’s largest quarter horse show is put on by the Ohio Quarter Horse Association.

This is the team’s first appearance at the congress for a few years. Team coach Pete Agalos said the students gained a great deal of knowledge and experience, learning what it takes to perform in the top echelon of equine judging.

“We are committed to excellence and developing the equine judging program,” Agalos said.

From left: Members of the team include, Jason Downs, John Whitney, Heather Lovett, Nicole Scholl, Jenae Avila, Erin Simmermacker, Erika Bennett, Jenna Swenson, Lindsay Walsh, Mary Edes, Missy Porter and coach Pete Agalos.

From left: Members of the team include coach Forrest Mangan, Brady Cerda, Lauren Corkins, Jenna Mann, Gabriel Ponce, Jeremy Monn and faculty adviser Joel Judge.
Success for Quarter Horse Enterprise

This year’s Quarter Horse Enterprise project was the most successful one to date. The students achieved the highest sale average, $5,900, at the 36th Annual NRCHA Snaffle Bit Futurity in Reno, Nev. on Oct. 1. They reached their highest total sales of $42,000, for one yearling and six two-year-olds. The highest selling horse, Masters Nu Fox, sold for $13,000.

Advising the Quarter Horse Enterprise for 16 years, professor Mike Lund said yet. “Each year it gets better and better, but this year was outstanding,” he said.

Six students were selected to participate in the Quarter Horse Enterprise: JoEllen Chunn, Alie Reilly, Beth Schembri, Elissa Tarp, Fallon Turner and Katherine Whitby.

In March the team started training the Cal Poly-bred horses as cutting, reining and reined cow horse futurity prospects. “We not only train the horses, but we also feed, clean, sale prep and run a small business based off this project,” senior Beth Schembri said.

The team met five days a week for three hours to work with the horses.

“The most satisfactory thing is to see these students develop in their horsemanship skills, maturity, and communication skills,” Lund said. “They can talk to people in the horse industry, and interact really well with professionals. These students go on to become very successful in the horse industry.”

“A Century of Heritage”

is available for purchase at the El Corral Bookstore for $35.

To purchase the book, log on to www.elcorralbookstore.com or call 1-800-367-0771

“A Century of Heritage” is available for purchase at the El Corral Bookstore for $35.

The Animal Science Department welcomes the opportunity to name stalls for supporters of our Equine Science program. With a gift of $5,000 or more donors will have their name engraved on an attractive high-quality plaque permanently mounted on a stall front. Donor names will also be displayed on our “Wall of Honor” at the barn’s landscaped entrance.

These stall-naming gifts will help us offset this beautiful 40-stall barn’s cost which was underwritten in part with a $150,000 pledge from the Sonoma Mountain Institute. Donations can be made with one or multiple payments (see enclosed envelope). For questions or comments please contact us at (805) 756-2419.

From left: Katherine Whitby on Shining Prize, Alie Reilly on Masters Nu Fox, JoEllen Chunn on Remy’s Gun, Fallon Turner on Cuttin Wild, Elissa Tarp on Montana Brio Fox and Beth Schembri on Shiny River of Gold.
**Helping modernize local industry**

Meat Scientist Professor Robert Delmore and a group of students received a plaque from Lompoc State Penitentiary for helping modernize their meat processing vocational training program.

Leslie Pint, animal science graduate; Stacy Stober, animal science senior; Derek Bettencourt, animal science senior; and Jen Conforti, animal science graduate, prepared the Hazard Analysis Critical Control Points (HACCP) beef harvesting plan for the prison's program.

Delmore's experience writing HACCP plans for Farmer John provided students with an invaluable resource for direction.

The USDA's Food Safety Inspection Service (FSIS) requires that all meat facilities have a HACCP plan. FSIS's requirement is a proactive approach to food safety.

"Part of the process in creating a HACCP plan involves determining potential hazards and where within the process these hazards are likely to occur," Delmore said.

When Matt Toll, the new vocational training meat instructor for the prison, wanted to bring the program back to life in November of 2004, he knew Delmore and his students would have the skills to get his program up to today's standards.

"[Since I was] unfamiliar with HACCP, [the students] really surprised me with their quality of work and how in-depth the plan was," Toll said. He also said that everything Cal Poly has done for them has really brightened their program's future.

The students in the winter 2005 class prepared the beef harvest HACCP plan, only covering one part of the program. The 2005 spring quarter group composed of Phil Bass, Richard Ford, Lindsey Barbieri and Pam Mertz created the beef fabrication HACCP plan for the prison.

Delmore said that the prison is now completely under USDA inspection, thanks to the students' aid. "It's a nice relationship we have — they need something and it gives students real-life experience," Delmore said.

ASCI415, HACCP for meat and poultry operations, teaches students the proper way to prepare this plan in a truly hands-on environment. It also provides students with a valuable skill set when they wish to find a job. "Students write plans in this class the same way they would as if they were working for a company," Delmore said.

In fact, many of these students are already contributing to professional programs. Next year, two groups of students will draft HACCP plans for the Heritage Food Company in Santa Maria as well as Ralph's Custom Meats in Atascadero.

"It was good to see that we weren't just making up this fake plan, [Toll is] actually benefiting from what we did," said Pint. -p

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**NEW FACULTY**

The Animal Science Department hired Pete Agalos as a full-time lecturer this fall, enhancing the equine program with his practical experience and a desire to teach as well as learn.

Agalos joined the Animal Science Department part time in April 2004 to teach ASCI 324, advanced equine evaluation. In fall 2004, he became a teacher in residence to teach ASCI 224, equine science, and ASCI 344, equine and human communication, which he continues to teach this year. He also coaches the horse judging team.

Receiving both his bachelor's degree in Animal Science and his master's degree in Agricultural Science from Cal Poly, Agalos never thought he would be back to teach. But Agalos considers himself a lifelong learner, and was attracted by the students' desire and capacity to learn as well as the high energy and intelligence of his colleagues.

"The most satisfying thing about teaching is seeing students succeed in whatever their endeavors are, and knowing you helped guide them in their success," Agalos said.

Before teaching Agalos worked as a manager for large ranches and owned a horse training business on the side. When Agalos came back to Cal Poly for his master's degree, he thought he would go into marketing, but instead, he found inspiration to become a teacher.

He spent 11 years as an agricultural teacher at Arroyo Grande High School, where he coached 11 Future Farmers of America state championship horse judging teams, seven FFA national championship teams and one Quarter Horse Congress championship team. He currently owns and operates a training business called Agalos Cutting and Performance Horses, which employs two Cal Poly students each year. -p
With a record-breaking sale average, Cal Poly's 49th Bull Test Sale attracted more than 500 cattlemen and cattlewomen to the Livestock Judging Pavilion on Oct. 2.

The 157 bulls up for auction went for an average price of $3,191, breaking the previous record of $2,747. Cal Poly developed 323 bulls during its 100-day test with the top 50 percent qualifying for the sale.

“This was the best bull sale Cal Poly has ever had,” said Mike Hall, professor and senior beef cattle specialist. “We had excellent bulls that were consigned to the bull test this year.”

Hall said the overall demand for beef is increasing, as is the profitability for cattle ranchers in the industry. “People are seeing that if they want to improve the quality of their beef cattle, they are supporting programs like ours,” he said.

Two bulls tied for the highest sale price of $8,000: a Charolais consigned by DCR Ranch and Fresno State University sold to Bently Agro-Dynamics of Minden, Nev., and an Angus consigned by C P L Id Mi i A Ranch in Crows Landing. Cal Poly's 23 Angus bulls brought in an average $3,850 sale price.

Sale attendees voted for their favorite bull in the new People's Choice Award, which went to a Bon View New Design 878 son, consigned by Cal Poly. The same Low Birth Angus bull sold for $6,500, the second-highest sale price, to Tony Borba of Oakdale.

The Bull Test Sale also introduced new technology. For the second year, all the bulls were tagged with electronic identification tags, which hold a world-wide sequence number for each animal. The Radio Frequency Identification (RFID) technology increased the ease for buyers to view the bulls' data. Before each bull entered the arena, a student scanned its tag and the bull’s information appeared on two projector screens for the audience to read.

“We want to demonstrate that the technology is available,” Hall said. “It’s the future of animal identification.”

This is the last year that testing the bulls will be done at the current site — the bull test will be relocated to a new site next year.

The Animal Science Department received more than $1.3 million for its animal nutrition research and instruction programs as the result of a settlement of an industry-wide class action suit.

Cal Poly was not a plaintiff in the original suit resulting in the settlement, but was chosen to receive the funding because of its strong animal nutrition program. “This money will significantly enhance the department’s ability to do research and educate students about cutting-edge technologies that will ultimately benefit California,” department head Andrew Thulin said.

The department received a $500,000 check June 29 and received another for $818,332 in December from a settlement fund involving a suit by purchasers of animal feeds against the makers of a synthetic animal feed ingredient called methionine. The ingredient is an amino acid found naturally in soybeans that is a key component of swine and poultry feed.

The original lawsuits, filed in California, accused several international synthetic methionine manufacturers of global price-fixing. The court-approved settlement provided that at least $500,000 in payments agreed to by the methionine makers is used to further animal nutrition research and education.

Attorneys for the plaintiffs, Dario de Ghetaldi of Corey, Luziach, Pliska, De Ghetaldi & Nastari and Michele C. Jackson of Lieff Cabraser Heimann & Bernstein proposed Cal Poly receive funding and the court agreed. Jackson and de Ghetaldi said in a joint statement that they are sure Cal Poly will put the funds to good use and their law firms are gratified by being able to assist Cal Poly’s Animal Science program.

The strength of the University’s program and its partnership with a strong advisory board of industry representatives aided Cal Poly in receiving the settlement funding, Thulin said. “Cal Poly’s animal science department is a national leader in undergraduate training in animal nutrition and reproductive physiology. We’re expanding and improving the biotechnology program and we’re particularly strong in beef, equine, poultry, and swine studies,” Thulin said.
Garret Guenther, a recent graduate of the Animal Science Department, was awarded the John Clark Student Fellowship for his undergraduate research work, “Development of methods for the production of transgenic quail expressing an E. coli phytase gene.”

Guenther was the only undergraduate student to present his work at the Fifth Transgenic Animal Research Conference in August. The conference is an internationally recognized meeting of leaders in the field of genetically engineered animals, with academic and industry researchers and government regulators in attendance.

The Roslin Institute, a world center for animal biotechnology in Edinburgh, United Kingdom, sponsored a fellowship this year to honor a student’s involvement and presentation of animal genetic engineering research. The John Clark Student Fellowship was created in memoriam of Dr. John Clark (1951-2004), former director of the Roslin Institute and a pioneer in applying molecular biotechnology to agriculturally important animal species.

Guenther said he was surprised when he received the award because he was the only undergraduate attending the conference.

Dr. Bruce Whitelaw of the Roslin Institute and head of the committee responsible for selecting the recipient of this award, commented that he was impressed to find this caliber of student at all, and even more impressed that this work represented Guenther’s undergraduate experience.

“The award was initially intended to honor a graduate student, but this first John Clark Student Fellowship honored one of Cal Poly’s undergraduates, and underscores Cal Poly’s world class program,” said professor Dan Peterson. Peterson and animal science professor Elizabeth Koutsos advised Guenther throughout his project.

“Both Drs. Peterson and Koutsos were essential to the research through their time and patience to teach whenever it was needed,” Guenther said. “Many times I came to them both needing an explanation or insight with troubleshooting and how to proceed following that. They have always been extremely helpful.”

Guenther is currently pursuing his doctorate in molecular biology, genetics and biochemistry at the University of California, Irvine. He is researching the inhibition of HIV.

He credits the Animal Science Department for preparing him for his graduate studies. “I was fortunate to learn the fundamentals of molecular biology, cell culture and immunology through some of my animal science courses. Additionally, working in a lab and getting to know faculty greatly improved my chances.”

The Animal Science Department’s Thoroughbred Enterprise continues to improve its reputation in the thoroughbred industry. In August, the enterprise students sold two fillies, Tribal War and Bubble Gum Alley, and one colt, Continental Flyer, for a combined $12,000.

People at the sales commented on how easy the Cal Poly horses were to handle, said animal science senior Shauna Romero. “We work with the horses everyday, so they are well trained,” she said.

Running from winter quarter through the summer, students who participate in the project are in charge of the nutritional regimen, daily exercise, training, grooming and health care of the project horses. They learn basic handling and horse presentation skills, which they put into practice at horse sales. They are introduced to the Thoroughbred racing industry in California and have the opportunity to attend various industry events like breeders association gatherings and premiere racing events.

“The enterp opportunity to students to the Thoroughbred said Jaymie Nola science professo enterprise adviser Dr. Noland opportunity to Russell Drake, far River Edge Farm for the Keenela Breeding Stock Sa we would like to e to the industry o Noland said. The thoroug continues to rec from the industr stallion services River Edge Far Miguel, Golden Pepper Oaks Farm and Madeline Auerback and Associates.

Continental Flyer, the colt sold through the Thoroughbred enterprise.
Cal Poly equine science program featured in ‘Performance Horse’

Cal Poly was featured among the top 14 universities with first-rate horse programs in the May issue of “Performance Horse.”

The article, “Higher Horse Education,” was written by Andra Brichacek and provides a list of facts about each institution. The section about Cal Poly also included several unique features about the program: Cal Poly is the only university with students who sell horses at the Snaffle Bit Futurity as part of the Quarter Horse Enterprise project; it is the only school with an extensive reined cow horse emphasis; and it has one of the oldest breeding programs in the country.

Selected from more than 100 collegiate horse programs in the United States, they share an emphasis on the Western performance horse. The programs provide students with hands-on learning and riding in training classes, in the show arena and in the laboratory.

Students getting ready for Western Bonanza

Mark your calendars for the 22nd Annual Western Bonanza Jr. Livestock Show being held February 17 to 19 at the California Mid-State Fairgrounds in Paso Robles.

Last year, the show reached record numbers with over 500 exhibitors showing more than 1,560 head of livestock in the new A and B show format. Western Bonanza students were able to raise $32,000 in donations from their corporate and general show sponsors which provided exceptional awards for the exhibitors. The total premium payout and award value exceeded $50,000.

Wendy Hall, lecturer and Western Bonanza adviser said, “The show offers one of the few opportunities for the College of Agriculture to recruit livestock youth to Cal Poly.”

During the past 21 years, Western Bonanza has evolved into a show entirely managed by Cal Poly students enrolled in the ASCI 212, livestock management class. “The Western Bonanza program provides a great opportunity for ‘practical’ experience in livestock show management for our students,” Hall said.

Western Bonanza would not be possible without donations from its corporate sponsors who support the program and more importantly support California’s livestock youth. Sponsors include Bob Erickson Livestock Equipment, Farmers Warehouse, Nutrena, Manna Pro Corp, Associated Feed, King Show Feeds, O.H. Kruse and Showbloom, Red Bluff Bull and Gelding Sale, High Noon Feeds, Cattaneo Bros, Pete Johnson Chevrolet and Cadillac, WW Livestock Systems, Watts Trucking and Chopping, Educational Web Services, Purina Mills, LLC and the Estrella Ranch (George and Sue Hearst).

Western Bonanza added another faculty member to help advise the students. “We are excited to have Jacky Hildebrand, a Cal Poly Lecturer, assist us this year with the growing program,” Hall said.
Tune into the Food Network’s show BBQ with Bobby Flay at the beginning of the year for a look at Animal Science students and faculty working cattle and demonstrating how to barbecue Cal Poly style.

Chef and grilling star Bobby Flay brought a production crew to film students at the Swanton Pacific Ranch, the 3,200 acres of land given to Cal Poly by alumnus Al Smith. Students showed the film crew cattle health and processing techniques and ended the day with a traditional barbecue.

“The show focuses on barbecuing, but if at the same time we can talk about our program, the College of Agriculture and Cal Poly, then that’s a good way to get recognition for the things students have done,” said animal science professor Robert Delmore. “Everything that we do, whether it’s research, teaching or outreach, we want to make sure it has an opportunity to get students involved.”

Professor Jon Beckett said the producer’s original objective was to take pictures of cattle, but it morphed into an entire segment for the show. “We really promoted Cal Poly’s ‘Learn-By-Doing’ philosophy. It was an opportunity to talk about what our students do, where our students are going and the opportunities our students have,” Beckett said.

The faculty and students put the show together in less than a week. “It was a typical animal science department team effort to put together,” Delmore said. The production crew enjoyed working with the students as well as the view from Swanton Pacific Ranch.

“It was fantastic — one of the best stories we’ve had the pleasure of shooting,” executive producer Steve Lange said. “The professors were top notch, so were the students. The food was fantastic, and the view at sunset was incredible. If we can figure out a way, we’ll be back for the sequel.”

Professors Robert Delmore and Jon Beckett answer questions about Cal Poly’s programs and students. The filming was done at Cal Poly’s Swanton Pacific Ranch, located 12 miles north of Santa Cruz.