MEAT – IT’S WHAT’S FOR DINNER!

Thanks to UW Meat Lab director, students

By Carolyn Hageman

Students of all majors have the opportunity to work and gain real-world skills at the University of Wyoming’s Meat Lab – a full packing plant on campus.

Kelcey Christensen has managed the UW Meat Lab for five years and is responsible for teaching students the entire process of a packing plant – from slaughtering the animals to cutting and packaging the meat. Christensen hires about 10 students during the year and generally only two students during the summer.

“Ninety-nine percent of people who work in the meat lab have no experience in the field,” says Christensen.

The 10,000-square foot lab in the Animal Science/Molecular Biology Building offers all meat-processing services for university-related activities. Students obtain experience that will be with them the rest of their lives.

“There is a huge need for people in the food industry,” says Christensen. “Not just meats, but in any food industry, it helps to have that experience.”

Safety is a huge consideration at the meat lab, and manager Christensen provides the training.

“There is an inspector in the plant every day. He’s there all day with them, and this is to make sure that they are doing what they say they are doing,” he says. “I am certified for Hazard Analysis Critical Control Point (HACCP), which is a system that the government and some corporations have put together to identify hazards within a plant, and those hazards could be anywhere from biological pathogens to physical hazards or chemicals.”

The UW Livestock Farm near Laramie provides most of the animals for the meat lab. About 50 head each of beef, hogs, and lambs are slaughtered between the fall and spring semesters.

“That is solely for teaching purposes, some extension work, and when it comes to research, the number could vary,” notes Christensen. “Those carcasses go directly to the cooler. We chill them, and they are used extensively for teaching purposes. Our beef will hang between 21 and 34 days in the cooler before it’s frozen, pigs are a maximum of 21 days, lambs are a little bit less (18 days). They tend to dry out in our climate here.”

According to Christensen, the carcasses are hung in the cooler before being frozen to allow the meat to tenderize. Beef is required to hang 14 days to obtain the greatest natural tenderization of meat.

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“The longer the meat ages in a cooler, the stronger the beef flavor will become,” he explains.

After freezing, the meat is cut into steaks, roasts, ham, and bacon, while the leftover trim is processed into ground beef or pork sausage. Undergraduates do all the work through each step.

“For the most part, I oversee what the students do, and I teach them, but I cannot be out there all the time,” Christensen said. “They are out there, and they do all the work for the most part.”

The meat lab packages and sells various products to the public, both locally and statewide, and is also heavily involved on campus. It supplies some of its meat to Residence Life and Dining Services at UW, and contracts with the UW Meat Judging Team for prime rib and rib eye steaks.

“The meat lab processes all of that, and then the meat judging team pays the meat lab to produce all that, then they turn around and sell it to make a profit and that allows them to travel,” says Christensen.

The meat lab is also responsible for supplying and organizing all state FFA and 4-H meat judging contests. The lab prepares meat for a practice contest for students and also provides for the state FFA competition, which is held in Laramie.

The Food Science Club at UW works in conjunction with the meat lab in support of different activities. Every year, lab employees and club members prepare for the annual Ag Day Barbecue with the proceeds funding student organizations and scholarships in the College of Agriculture and Natural Resources.

Animal and veterinary sciences major Kayla Foster has been in the Food Science Club for three years. Foster, of Cheyenne, has worked in the meat lab for two years and is serving as the club president from January to December.

“In the past, some of my duties to prepare for the Ag Day Barbecue include shopping for the food and supplies needed, making sure we have enough members to work at the barbecue, as well as cooking and preparing the food,” says Foster.

Jennifer Anders, also a club member and animal and veterinary sciences major, has been involved over the years in helping with the barbecue.

“We’ve put barbecue in squirt bottles, mixed spices for the meat, prepared gallons upon gallons of beverages, gathered gloves, hairnets, and coats for the members helping, cooked beans or other side dishes in large quantities, prepared everything for travel, and then loaded up the Food Science Club trailer,” explains Anders.

The Fort Lupton, Colorado, native is also extremely involved in all meat lab activities and responsibilities.

“I’ve never worked for the meat lab officially, but I’ve been on the meat judging team before. I’ve helped with slaughtering, fabrication, doing dishes, vacuum packaging cuts, setting up FFA and 4H contests, leading those contests and then grading those contests, and anything else that needed to be done,” says Anders.

The University Meat Lab conducts sales through the Department of Animal Science Meat Sales page found at http://www.uwyo.edu/anisci/meatsale/meat-sales-information.html. For more information, contact Christensen at kelceyc@uwyo.edu.

Carolyn Hageman is an agricultural communications major and has an internship with the Office of Communications and Technology this semester.
Students serve more than 740 at Ag Day Barbecue

**Department of Animal Science Seminars**

*Fridays, 12:10-1 p.m., Animal Science/Molecular Biology building, room 103*

Lunch served for $4 beginning at 11:50 a.m. by the Animal Science Graduate Student Association

**November 8:** “Natural Killer Cell Responses to Toxoplasma gondii Infection,” Jason Gigley, molecular biology

**November 15:** Animal science intern presentations

**November 22:** Animal science intern presentations

**November 29:** Thanksgiving break

**Department of Molecular Biology Seminars:**

*Fridays, 2:10-3 p.m., Animal Science/Molecular Biology building, room 103*

**November 8:** “We Are All Glycobiologists – Glycan-lectin Interactions at the Cell Surface Regulate Cell Survival, Adhesion, Migration and Death,” Linda Baum, University of California Los Angeles

**November 15:** “Towards a Molecular Understanding of Meiotic Drive in Maize,” Kelly Dawe, University of Georgia

**November 22:** “Nuclear ‘Lamina’ Structure and Human Disease,” Katherine Wilson, Johns Hopkins University

**November 29:** Thanksgiving break

**Research across Disciplines and Ecosystem Restoration Seminars:**

*Fridays, 2:10 p.m., Ag C building, room 1030*

**November 8:** “Reclaiming Colorado’s Gold Mines,” Mark Paschke, Colorado State University

**November 15:** “Migratory Bird Study,” Amy Pocewicz, the Nature Conservancy, and Mark Andersen, Wyoming Natural Diversity Database

**November 22:** TBA, Brenda Schladweiler, BKS Environmental Associates

**November 29:** Thanksgiving break
CATTLE PUBLICATION SELECTS CAMMACK TOP 10 INDUSTRY LEADER

By Kindra Gordon
The Cattle Business Weekly

 Associate Professor Kristi Cammack in the Department of Animal Science was selected to the Top 10 Industry Leaders by the Cattle Business Weekly.


“I enjoy getting to work on challenges facing the beef industry,” says Cammack.

Cammack’s efforts include research- ing quantitative and molecular genetics, currently with a focus on feed efficiency, as well as teaching undergraduate courses and advising graduate students.

It’s apparent she approaches her career with dedication and enthusiasm because she has roots in the cattle industry – she and her husband own a small herd of cattle – and during her own college experience she was positively influenced by her professors.

While at South Dakota State University as an undergrad, she worked with animal science Professor Don Marshall on various research projects and enjoyed the work. Marshall suggested she go on to graduate school. For her master’s, she worked with Merlyn Nielsen at the University of Nebraska on a quantitative genetics project with the Meat Animal Research Center (MARC).

After completing her Ph.D. and postdoc – with a focus on toxicity issues – at the University of Missouri, she joined the faculty at the University of Wyoming in 2006. Early on, her research projects included studying nitrates in forages, especially prevalent during drought conditions, as well as studying sulfate toxicity in water and feed – a project she partnered with her alma mater SDSU.

Cammack has turned her research focus to feed efficiency and looking at a variety of ways to find markers to predict feed efficiency.

One study she is involved with is looking at rumen microbes to determine if they provide an indicator of feed efficiency. In her research work, Cammack usually has three or four graduate students working on projects throughout the year.

Cammack believes progress is being made in the industry’s feed efficiency research efforts.

“There are a lot of different groups working on it in different ways,” she says. “I’m pretty confident eventually we’ll have a useful marker or indicator. We just don’t know yet exactly what it will look like.”

Cammack relishes her teaching role in addition to her research. She co-teaches both an introductory animal science course for freshmen and a topics and issues animal science course in which students must write a paper on an industry topic of their choice. Each fall she also teaches an animal breeding and genetics class to upperclassmen.

Cammack recognizes that starting out in production agriculture can be very daunting for a young person. In addition to their college coursework, she encourages her students to talk to experienced beef producers and learn from them.

“There are a lot of ranchers who want to share and teach,” she notes.

She says the enthusiasm of the graduate and undergraduate students she works with fuels her.

“Students definitely teach us, too.”

She has especially found that undergraduates offer a different perspective as they learn things about the industry – which often prompts her to consider research questions from a different viewpoint.

As the beef industry prepares for the future, Cammack underscores that everyone working in the industry needs to continue working on effective communication with the public.

“We must always make sure we are putting our best face forward,” she says. “The beef industry is a valuable resource and a key part of feeding the world’s global population growth. If people better understand how we are doing things, we can bridge some of the gaps that exist.”

Calendar

November 7: Financial Literacy Webinar: Spending in the Dark, 7 p.m., online webinar http://www.uwyo.edu/ces/money/webinar.html

For a statewide calendar, please access the ag college Web site at www.uwyo.edu/UWAG/
ANNIE ERIKSON IN THE Uinta County office of University of Wyoming Extension received extension’s top honor for secretaries. Erickson received the Frances Freese Secretary of the Year award during the annual Extension Secretary Conference – A Professional Event (ESCAPE) meeting in Evanston October 2-4. Erickson joined UW Extension in December 2002. Her personality never waivers, writes another, and she has a happiness and smile that rubs off on anyone she is around. She treats each client as if they were the most important thing she has to deal with that day, states another. The award recognizes extension secretaries for outstanding contributions and accomplishments and is presented each year during ESCAPE. Freese worked at the Wind River Indian Reservation extension office then moved to the Fremont County office, where she worked for 25 years. UW Extension has offices in every county and the Wind River Indian Reservation.

ATTACKING THE GRAPE: BY PLANT SCIENCE’S Assistant Professor Sadanand Dhekney at the Sheridan Research and Extension Center was featured in a story by Wyoming Public Radio. The broadcast aired Sunday, October 27. The video can be viewed and story read here http://bit.ly/wyoming-grape.

Proposals Submitted


Garcia, y Garcia, Axel: $60,000 to Dow Chemical for “Corn Tolerance to Water and Heat Stress.”

Horn, Blaine, Anowar Islam, Axel Garcia y Garcia, and Valtcho Jeli-azkov: $19,997 to Wyoming Department of Agriculture for “Perennial Cool-season Grasses for Hay Production and Fall Grazing under Full and Limited Irrigation.”

Moss, Gary, Brent Bolton, and Jay Burr: $24,765 to Scotts Company, LLC for “Kentucky Bluegrass Seed Production Trial.”

Thompson, Jennifer, Rachel Mealor, Tara Kuipers, Windy Kelley, Juliet Daniels, and Hanna Swanbom: $35,250 to U.S. Department of Agriculture (USDA) Natural Resources Conservation Service for “Barnyards and Backyards – An Innovative Project to Reach Out to Wyoming’s Small Acreage Landowner with Conservation Programs.”

MONIES AWARDED

Beck, Jeffrey: $10,000 from Devon Energy for “Factors Influencing Pronghorn Survival and Reproduction in South-Central Wyoming,” and $207,489 from Anadarko Petroleum Corporation for “Influence of Fall Harvest on Trends in Sage-Grouse Populations.”

Cornish, Todd, Matthew Kauffman, Terry Kreeger, Bryan Richards, Justin Bin- fet, and Dennis Helsey: $83,000 from U.S. Geological Survey for “Population Level Impacts of Chronic Wasting Disease in Wyoming Mule Deer II (RWO 194).”

Ehmke, Cole, John Hewlett, Kentz Willis, Axel Garcia y Garcia, Kellie Chichester, Jennifer Thompson, Cindy Garretson-Weibel, Jacelyn Downey, Ted Craig, Sonya Moore, Angela Grant, and Tom Hudson: $95,700 from USDA Risk Management Agency (RMA) for “Risk Management Training for Agriculturalists in the Billings Area.”

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Ehmke, Mariah, Cole Ehmke, Chian Jones Ritten, and Linda Thunstrom: $49,992 from USDA Agricultural Marketing Service for “Increasing Pollination Revenue and Guaranteeing Unadulterated Honey from Wyoming.”

Fox, Jonathan: $51,031 from National Institutes of Health for “Neuroscience Pilot Project FY14.”

Geiger, Milton: $20,000 from Wyoming Business Council for “Exploring Small Hydroelectric Facilities and Opportunities in Wyoming.”

Hewlett, John: $293,000 from USDA RMA for “Risk Management Education in Wyoming 2013-14.”

Kniss, Andrew, and Robert Baumgartner: $1,000 from various sponsors for “Improving the Sustainability of Dry Bean Production.”

Mealor, Brian: $24,500 from Dow AgroSciences for “Biology and Management of Invasive Weeds in Rangelands.”

Raisbeck, Mer: $1,412 from various sponsors for “Miscellaneous Analysis.”

Rashford, Benjamin: $64,231 from U.S. Geological Survey for “Mitigation by Design in Wyoming: Making the Connection between Habitat, Disturbance, Restoration, and Resource Economics.”

Riley, Eloise: $76,300 from Department of the Army for “Operation Military Kids.”

Schamber, Robin: $3,600 from various sponsors for “Sublette County Extension Program.”

Schell, Scott, Alexandre Latchininsky, Brian Mealor, and John Connett: $80,300 from USDA National Institute of Food and Agriculture for “University of Wyoming Extension Service Integrated Pest Management Coordination.”

Tanaka, John, and Kristie Maczko: $100,000 from USDA Forest Service for “Sustainable Rangelands Roundtable FY13.”

Watson, Rachel, and John Willford: $1,500 from Campus Compact for “The Microbiology Meridian: Implementing a Problem and Service-based Microbiology Capstone Course.”

### Changing Faces, Changing Places

**(effective date in parentheses)**

**Welcome**

**Anastasia, Trena:** Family and consumer sciences, temporary lecturer (8/22)

**Ashley, Rebecca:** Veterinary sciences, histotechnologist (4/15)

**Berggren, Kiersten:** Veterinary sciences, post-doctoral associate (7/8)

**Bisha, Bledar:** Animal science, assistant professor (8/20)

**Chandler, Jeffrey:** Animal science, post-doctoral research associate (10/1)

**Pierson, Andrea:** Powell Research and Extension Center, research assistant (10/22)

**Childress, Noelle:** Platte County UW Extension, administrative assistant (9/23)

**Ciz, Joylyn:** Cent$ible Nutrition Program, coordinator (9/30)

**Davila, Adina:** Family and consumer sciences/Early Care Center, lecturer, assistant (8/22)

**Fox, Julia:** Veterinary sciences, research technician 1 (10/14)

**Ghimire, Rajan:** Ecosystem science and management, research scientist assistant (6/1)

**Guo, Wei:** Animal science, assistant professor (8/20)

**Hyde, Kevin:** Ecosystem science and management, post-doctoral research associate (8/28)

**Irick, Erin:** Family and consumer sciences, assistant professor (8/20)

**Jabbour, Randa:** Plant sciences, assistant professor (9/1)

**Jones Ritten, Chian:** Agricultural and applied economics, assistant professor (8/20)

**Limon, Shaila:** Family and consumer sciences/Early Care Center, lecturer, assistant (8/22)

**Meeks, Heidi:** Carbon County UW Extension, secretary (7/1)

**Montoya, Leslie:** Laramie Research and Extension Center, office assistant, senior (10/9)

**Navarro, Tracy:** Laramie County UW Extension, office assistant, senior (7/1)

**Nieters, Michelle:** Ecosystem science and management, office associate (9/8)

**O’Brien, Katherine:** Family and consumer sciences, temporary lecturer (8/22)

**Reynolds, Steven Camby:** Powell Research and Extension Center, farm manager (8/21)

**West, Jill:** James C. Hageman Sustainable Agriculture Research and Extension Center, office assistant, senior (10/15)

**Wissner, Catherine:** Laramie County UW Extension, extension educator, assistant (7/1)

**Zhu, Menggiang:** Ecosystem science and management, assistant professor (8/20)

**Farewell**

**Menkhaus, Dale:** Agricultural and applied economics, professor (11/1)