

ANIMAL & RANGE SCIENCES NEWSLETTER

Volume 7, Issue 1

March 2014

Introduction from Dr. Patrick Hatfield, Interim Department Head



Welcome to the Spring 2014 newsletter for the Department of Animal & Range Sciences. The department continues to grow in student numbers, faculty and staff. The number of undergraduate students for Spring 2014 totals 314, and the department currently has 18 graduate students. Our department faculty, staff and programs continue to be dedicated to student success.

Looking over this newsletter, I continue to be amazed at everything that has been accomplished in the academic year. We had six different searches going on during this time and you can find updates on page 12. Productivity of faculty has been outstanding, as seen in the Awards, Publications & Presentations section of the newsletter.

Our student participation in club and academic events has had some real highlights recently and we hope you take the time to read about these. Without the help of our dedicated faculty and staff, students would not have these opportunities and I would like to thank them for their efforts.

This October, an external review was conducted of our department. This has been a long time coming as our last review was in March of 2000. We were praised for our strong undergraduate program and relationship with the Montana ag community. The external review committee gave us a report with some great suggestions for keeping our program strong. If you are interested in hearing more about this review please contact me: Pat Hatfield, PH: 406-994-4850 or Email: Hatfield@motana.edu.

We are having a pre-graduation celebration for the Spring 2014 graduating seniors on Friday, May 2 at 4:00 pm in the Animal Bioscience Building Atrium. If you would like to join the festivities please come by.

Thank you for continuing to support our program and please stop by to see us when you are in Bozeman.

Inside this issue:

Research Highlight: Dr. Lisa Surber and the Montana Wool Lab	2	Student Events: Collegiate Cattlewomen	8
Awards, Publications & Presentations	3	Student Events: MSU Wool Judging Team	9
Awards, Publications & Presentations (cont'd)	4	Student Events: MSU Academic Quadtrathlon Team	9
Recent Events held in the Animal Bioscience Bldg.	4	Student Events: MSU Range Club	10
Other News/Like Us on Facebook	5	Upcoming Dates	10
Equine Science Program News: Legacy of Legends Horse Clinic (Las Vegas, NV)	6	Goodbye and Good Luck	11
Equine Science Program News: Top of the West Horse Sale	6	Pre-Graduation Celebration	11
Equine Science Program News: Buck Brannaman Horsemanship Clinic	7	Current News: Update on Position Searches	12

Research Highlight: Dr. Lisa Surber and the Montana Wool Lab



Originally from Medicine Hat, Alberta, Dr. Lisa Surber received all three of her degrees from Montana State University in the Animal and Range Sciences department. She truly bleeds Blue and Gold. Lisa has worked in the Animal and Range Sciences department for the last 20 years, spending the last 9 years in the sheep program working with Dr. Rodney Kott prior to his retirement. Rodney made sure that Lisa acquired the skills needed to run the Montana Wool Lab, but also trained her in all aspects of his sheep program.

Lisa is the Manager of the Montana Wool Lab. The Montana Wool Lab is one of only two university affiliated wool labs in the U.S. Lisa assists Montana sheep and wool producers with understanding emerging wool marketing trends and developing relationships with companies to increase demand for Montana wool. The Montana Wool Lab manager is responsible for a significant wool education effort in the state of Montana and regionally. This year, laboratory

wool quality analyses and ranch visits to test wool and educate producers on wool quality increased by 25% over the previous year. Lisa recently received her Advanced Wool Classer III certification from American Sheep Industry Association. There are less than 10 Level III classers in the US.

Lisa is involved in many sheep and wool research and extension projects. Some of these include: sheep producers area seminars; one-on-one consultations with agents and producers; wool pool delivery/ marketing; wool pool meeting updates; Montana Ram Sale grower informational program, wool quality testing, sale catalog, ram evaluation/sifting, sale assistance; teaching wool section of ARNR 432 and 232; support of producer shearing and wool classing activities; and coaching MSU Wool Judging team. The MSU Wool Judging team recently place 5th in the nation at the NWSS in Denver. She is well known throughout the state for her sheep ultrasound skills, as she is a NSIP Certified Sheep Scanner and primarily uses ultrasound technology to measure loin-eye area for genetic improvement in the sheep industry in Montana and surrounding states. She works closely with the 4-H Market Lamb program at the county and state level. Her two sons are involved in the 4-H market lamb project in Gallatin County.



If you would like to contact Lisa, she can be reached at:

PH: 406-994-2093

Email: lsurber@montana.edu

Awards, Publications & Presentations

New grant: **Jennifer Thomson** and **Mike Frisina** were awarded \$9,000 from the Wild Sheep Foundation for DNA analysis of Kyrgyzstan wild sheep.

New publication: **Frisina, M.R.** and Frisina, R.M. 2013. [Phenotype evaluation of free-ranging European mouflon](#). *Taprobanica* 5(2): 157-162.

New publication: Thrift, T.M., T.K. Mosley and **J.C. Mosley**. 2013. [Impacts from winter-early spring elk grazing in foothills rough fescue grassland](#). *West N Am Naturalist* 73(4): 497-504.

New grant: **Carl J. Yeoman** and Seth Walk were awarded \$356,400 from the National Institutes of Health's, National Institute of Allergy and Infectious Disease for a project entitled "Microbial Polyamine-Mediated Reductions in Vaginal Acidity; A Mechanistic Understanding.

New grant: **Carl J. Yeoman** was awarded \$7,465 by the College of Agriculture to enable to enable the purchase of an MA-10 methane analyzer. The new equipment augments Dr. Brett Olsen's respirometer and will be used in three departmental classes to provide students with hands on experience in indirect calorimetry and enhance their understanding of metabolism.

Carl J. Yeoman was an invited plenary speaker at the Symposium on Gut Health in Production Animals in Kansas City, MO held November 11 – 13. Presenting a talk entitled "The Bovine Gut Microbiota: At the interface Between Nutrition, Health, and Development"

New publication: Xie G., **Duff G.C.**, Hall L.W., Allen J.D., Burrows C.D., Bernal-Rigoli J.C., Dowd S.E., Guerriero V., **Yeoman C.J.** 2013. [Alteration of digestive tract microbiome in neonatal Holstein bull calves by bacitracin methylene diasalicylate treatment and scours](#). *J. Animal Sci.* 91: 4984-4990.

New publication: Marietta E.V., Gomez A., **Yeoman C.J.**, Tilahun A., Clark C.R., Luckey D., Murray J.A., White B.A., Kudva Y.C., Rajagopalan G. 2013. [Low incidence of type I diabetes in non-obese diabetic mice raised on a gluten-free diet is associated with changes in the intestinal microbiota](#). *PLoS One.* 8: 78687

New publication: Stumpf R.M., Wilson B.A., Rivera A., Yildirim S., **Yeoman C.J.**, White B.A., Polk J.D., Leigh S.R. 2013. [Primate vaginal microbial ecology: Comparative context and implications for human health and disease](#). *Am. J. Phys. Anthropol.* 57: 119 – 134.

Jeff Mosley was awarded the Green Award for Leadership in Extension Sustainability Programming for the Association of Natural Resource Extension Professionals.

New grant: **Carl Yeoman** along with Gibson Gaylord (Bozeman Fish Technology Center, US Fish & Wildlife Service) and Daniel Bearden (Hollings Marine Lab, Institute of Standards and Technology, Charleston, SC) were awarded \$800,000 from the USDA National Institute of Food and Agriculture (NIFA). The title of this grant is: "Development Of Dietary Interventions To Mitigate Climate-Induced Alterations Of Rainbow Trout (*Oncorhynchus mykiss*) Gut Microbial Populations And Protein Metabolism."

Jeff Mosley and coauthors Rachel Frost, **Brent Roeder**, Tracy Mosley and Jerry Marks presented a paper at the Society for Range Management Annual Meeting in Orlando, FL entitled, "Is Targeted Sheep Grazing Compatible with Biological Control of Spotted Knapweed?"

Jeff Mosley presented an invited paper at the Montana Young Ag Couples Conference in Helena entitled, "Grazing Decisions During and After Drought."

New grant: **Jennifer Thomson** was awarded the Instructional Innovation Grant from Montana State University for the proposal: "CyberSheep: Integration of a Competitive Simulation Model of Animal Breeding into ANSC 322 Principles of Animal Breeding and Genetics and ARNR 524 Advanced Animal Breeding."

New grant: **Tommy Bass** was awarded \$45,257 from the Montana Department of Military on his proposal: "FFY12 HS MSU Extension Agro Emergency Preparedness - Planning and Exercise."

New grant: **Carl Yeoman** was awarded \$45,800 from the Montana Wheat and Barley Committee for his proposal "Determining the Potential of Wheat Stem Sawfly Endosymbiotic Microbiota for Exploitation in Developing Unique Management Strategies."

Awards, Publications & Presentations (continued)

New grant: **Pat Hatfield** was awarded \$40,000 by the College of Agriculture to enable the purchase of Grow-Safe system.

Rachel Endecott was a speaker at the Ag Expo held at MSU in November of 2013. The Ag Expo brought hundreds of FFA and 4-H students to the MSU campus. Rachel's talk was titled, "Spotlight on MSU's Animal and Range Sciences Programs."

Recent Events Held in the Animal Bioscience Building

October 4, 2013	Year for Engaged Leadership Meeting
October 9-10, 2013	External Review for the Department of Animal & Range Sciences
October 23, 2013	Extended University Outreach and Engagement Council Mtg.
November 4, 2013	Sustainable Food Systems Advisory Mtg.
November 12, 2013	Montana Arts Council Mtg.
November 20, 2013	MSU Center For Faculty Excellence Workshop
December 3, 2013	Equine Boosters Lunch Mtg.
December 4, 2013	Listening Session with Search Committee for New VP for Ag position
December 21-22 & 29, 2013	Student Laboratory Workshop w/Carl Yeoman
January 15, 2014	Crop Meeting w/Darrin Boss
January 31, 2014	Molecular Biosciences Fellowship Mtg.
February 5, 2014	Microbiology & Infectious Disease Select Agent Program Training
February 6, 2014	Towne's Harvest Farm OAEC Board Meeting
February 7, 2014	Stillwater Range Association Mtg.
February 20-21, 2014	Academic Quadtrathlon
March 6, 2014	Green House Workshop w/Gallatin County Extension Agent
March 6, 2014	Animal & Range Sciences Advisory Committee Mtg.
March 7, 2014	MSU Grant Writing Boot Camp
March 17, 2014	COA Scholarship Committee Mtg.



Other News



The Department of Animal & Range Sciences was recently the recipient of a \$2 million gift. This \$2 million endowment will be used to support a scholar who will lead faculty and students in research that will provide direct benefits to Montana ranchers. The gift was made by Nancy Cameron, an MSU alumna, in honor of her family's pioneering heritage. *(Photo courtesy of Nancy Cameron)*

Rodney Kott was given the rank of Professor Emeritus of Animal and Range Sciences at the meeting of the Board of Regents of Higher Education held March 6-7, 2014.



Professor Emeritus, Ray Ansotegui, is teaching the ANSC 234 Beef Practicum for the last half of the Spring 2014 semester. Ray was with the Animal & Range Sciences Department from 1994 until 2006. We would all like to thank Ray for helping out with this class. It is certainly nice to see Ray's smile around the department again.

Rachel Endecott was honored as the "Most Valuable Professor" during the November 2, 2013, MSU Bobcat Football game against Northern Colorado. This radio spot was broadcast to the fans and radio audience during the game and can be heard here:

[Rachel Endecott radio](#) .

Rachel was also featured in The Pinke Post a blog by Katie Pinke of Wishek, ND that promotes agriculture: <http://thepinkepost.com/2013/11/dr-rachel-endecott/>.



Facebook



We would like to invite you to "Like us" on Facebook and keep up with the latest postings on the Department of Animal Sciences. You will find job postings, internship opportunities, award announcements, upcoming events, etc.

You can find our page at: <https://www.facebook.com/MSU.Animal.Range.Sciences>

Equine Science Program News

Legacy of Legends Horse Clinic (Las Vegas, NV)

The MSU Equine Program was showcased at Buck Brannaman's annual Legacy of Legends event in Las Vegas NV Jan. 30-Feb 3. The Legacy of Legends is a memorial horse clinic and scholarship fundraiser that celebrates the life and accomplishments of Tom and Bill Dorrance and Ray Hunt. The Legacy of Legends Foundation endeavors to promote and protect the teaching and ideas of these legendary horsemen. The annual event attracts hundreds of horse enthusiasts (including youths) from across the United States and around the globe. The three day educational event is the foundation's primary scholarship fundraising event. The foundation's goal is to generate funding for scholarships to deserving students in pursuit of a higher level of equestrian education and consciousness in conjunction with the horse. Buck Brannaman's daughter, Reata Brannaman, is the current instructor for two MSU Equine Science horse training courses. Additionally, one of MSU's current students, and the teaching assistant for the colt starting and advanced training techniques courses, Ceily Highberger, was a 2013 scholarship recipient.



Ceily Highberger



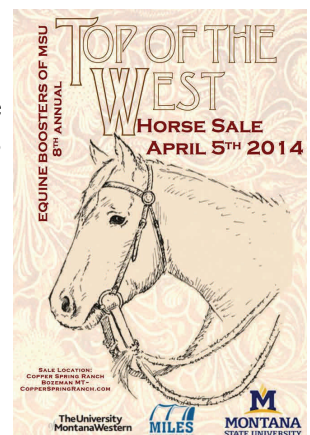
Katie Vincent, Ceily Highberger and Reata Brannaman promoting MSU's Equine Science program at the Legacy of Legends.

Buck Brannaman and Ray Hunt's widow, Carolyn Hunt, sponsored MSU's Equine Science program at the Legacy of Legends. "The event was a tremendous recruiting and national public relations opportunity to showcase our program on a grand stage," said MSU's equine science professor, Dr. Shannon Moreaux. "With financial support from the MSU Equine Boosters and the College of Agriculture I was able to take 4 students to represent our program and the MSU Boosters Top of the West Horse Sale. In addition to myself and the 4 sponsored students, 6 other students attended and helped promote the program exceedingly well." Dr. Moreaux said the MSU Equine Science booth was very visible and well visited by interested buyers and students alike. Each year the MSU Equine Boosters seek donations of a dozen or more young horses to be used in horse training courses. After nearly a year of training, the horses are auctioned at the annual Top of the West Horse Sale which is slated for April 5th this year. "We had pictures, pedigrees and descriptions for each sale horse and videos of all the horses for everyone to preview. The students did a great job of promoting the sale and the equine science program," said instructor Reata Brannaman.

Top of the West Horse Sale

Reata Brannaman hosted a mini-preview of the MSU Colt Starting Class colts on February 17, 2014. This was followed by a Horsemanship class by Buck Brannaman (see next page). The colts that were previewed will be up for sale during the 8th Annual Top of the West horse sale on April 5, 2014 at Copper Spring Ranch in Bozeman, MT. This event is hosted by the MSU Equine Boosters. This horse sale was started by Bob Hanson, former chairman of the boosters, to raise funds for the equine education program at MSU.

For more information on the Top of the West horse sale contact Reata Brannaman at (307) 752-7987 or by Email: reatabrannaman@gmail.com.



Top of the West catalog cover designed by MSU student, Hannah Ballantyne.

Equine Science Program News (continued)

Buck Brannaman Horsemanship Clinic

Montana State University's Department of Animal and Range Sciences hosted a horsemanship clinic for MSU students with internationally celebrated horseman Buck Brannaman on February 17, 2014. The clinic was held at the Miller Pavilion at MSU.

Brannaman, a world-renowned horseman who holds an honorary doctorate in equine science from MSU, was one inspiration for the character Tom Booker in the Nicholas Evans novel "The Horse Whisperer," which was made into a film directed by and starring Robert Redford.

Brannaman practices a unique approach to horsemanship and teaches a philosophy that respects a horse's natural instincts. This training method encourages a deep connection between horse and human. The film "Buck," a documentary featuring Brannaman's work, won the U.S. Documentary Competition Audience Award at the 2011 Sundance Film Festival. Brannaman regularly serves as a motivational speaker on the topics of animal and child abuse and conducts national and international horsemanship clinics and lectures.

MSU's College of Agriculture equine science major is one of the fastest growing programs on campus. Brannaman's daughter, Reata Brannaman, is an MSU student and currently teaches colt starting classes.

Below are some pictures from the clinic including one of his daughter, Reata, on horseback.



Student Events

Congratulations to the MSU Collegiate Cattlewomen Advisor, Dr. Jane Ann Boles



Collegiate Cattlewomen with Dr. Jane Ann Boles (front row, far right)

Tyson Foods, Inc., in conjunction with the Animal Agriculture Alliance's College Aggies Scholarship Competition (CAO) and the Montana State University Collegiate Cattlewomen, donated a truckload of protein to the Gallatin Valley Food Bank located in Bozeman, Montana.

"We're always looking for ways to raise awareness about the seriousness of hunger across the country," said Tyson Foods' director of social media Jack Pate. "And this is one of those events that does that, while meeting the immediate need of hunger that so many face."

An online competition open to all college students with an interest in agriculture, CAO aims to help college students utilize social media and advocacy to share agriculture's story. Since its launch in 2009, more than 1500 college students from more than

100 different colleges and universities have registered to participate in the program.

This fall, participating clubs were assigned a variety of challenges, including hosting a food drive on their college campuses. The club that collected the most food for their local food bank would receive a donation of protein in their name from program sponsor Tyson Foods. This year's food drive challenge winner was the Collegiate Cattlewomen, an agriculture club at Montana State University, which collected nearly 500 pounds of food.

"Tyson Foods has long had a tradition of charitable giving targeted towards hunger relief efforts," said Alliance President and CEO Kay Johnson Smith. "We are so proud that through Tyson's sponsorship of our CAO program, we were able to inspire this year's participants to give back to their local communities."

Meat and poultry are nutrient dense foods, according to health experts, and can be especially helpful to people who need more protein including children, pregnant women, the elderly, and anyone undergoing severe stress, disease or disability. According to food banks nationwide, meat and poultry are the most requested and least available foods.

For more information about Tyson Food's donation or the CAO competition, please contact Emily Meredith at (703) 562-5160.

"We are grateful for the 500 lbs. of food that the MSU Collegiate Cattlewomen collected for the food drive and then we were informed of this incredible donation through the Animal Ag Alliance's competition," said Jill Holder, Operations Manager for the Gallatin Valley Food Bank. "This is the largest single food donation that we have received and we are thrilled. The truckload of protein is so significant that we will be able to help local families for nearly a year. We are thankful for our local club that showed such initiative and to Tyson for their charitable giving."

Student Events (continued)

Congratulations to the MSU Wool Judging Team and Advisor Dr. Lisa Surber

The 2014 Wool Judging Team competed in the 2014 National Western Stock Show Collegiate Wool Judging contest in Denver, CO. The MSU team placed 5th overall. Sarah Boyer placed 5th high in placing and Rebecca Gibbs placed 8th high over all individual. The Wool Judging Team is coached by Dr. Lisa Surber (standing far right).

Wool judging teams have three competitions available to them during the school year. In addition to Denver, the team will compete in Houston and in San Antonio.

The opportunity to participate on a judging team benefits MSU students by developing their public speaking skills and expanding their knowledge about wool. Both are important for careers in agriculture.



Congratulations MSU Academic Quadtrathlon Team on Collegiate Quiz Bowl Contest and Coach, Dr. Rachel Endecott

Winning several local and regional competitions throughout the year, Montana State University's Academic Quadtrathlon Team competed in the Collegiate Quiz Bowl contest at the during the 2014 Cattle Industry Convention in Nashville in early February. These Bobcats were Kenneth Gaskill, Katy Klick, Jared Hardaway, Lane Schmitt and advisor, Dr. Rachel Endecott.

The competition places teams from across the country head-to-head to answer complex questions about the livestock industry as quickly as possible. In game show style, the student to "buzz in" first has the opportunity to answer the question and his or her team is then awarded points for correct answers and lose points for incorrect attempts.



During the national competition, MSU competed against teams from Kansas State University and Penn State University. Out of all the teams in the nation, the Bobcats took home the 4th place spot. Next, the team will travel to San Angelo, TX for Western Section American Society of Animal Science (WSASAS) regionals in June.

MSU Collegiate Quiz Bowl team: (R to L) Kenneth Gaskill, Katy Klick, Coach, Dr. Rachel Endecott, Jared Hardaway, and Lane Schmitt.

Student Events (continued)

Congratulations MSU Range Club and Coaches, Dr. Craig Carr and Merrita Fraker-Marble



Members of the MSU Range Team competed against students from the United States, Canada and Mexico in Plant ID, extemporaneous speaking, and the Undergraduate Range Management Exam (URME). MSU competition results: McKenna Brown placed 3rd, Susan Massar placed 10th, and Jarrett Payne placed 12th out of 155 students from 22 schools and 3 countries in the URME. The team placed 3rd (a combined team score) in the URME as well. The URME group is coached by Merrita Fraker-Marble. Rachel Abeh placed 2nd and Austin Standley placed 4th in the extemporaneous speaking contest. We also had 3 students in the top 25 combined score (combined plant ID and URME – ie., they did well

in both contests which is a real feat) including Jarrett Payne in 13th place, McKenna Brown in 14th place, and Susan Massar in 25th place.

Upcoming Dates

April 5, 2014	Top of the West Horse Sale (Copper Spring Ranch, Bozeman, MT)
April 22-23, 2014	2014 Montana Nutrition Conference and Livestock Forum (GranTree Inn, Bozeman)
May 2, 2014	Pre-Graduation Celebration for students in the Department of Animal & Range Sciences (1st floor Atrium Animal Bioscience Building)
May 3, 2014	MSU Commencement
June 23, 2014	Central Ag Research Center Field Days
June 26, 2014	Southern Ag Research Center Field Days
July 2, 2014	Northern Ag Research Center Field Days
July 8, 2014	Post Farm Field Days (Bozeman)
July 15, 2014	Western Ag Research Center Field Days
July 16, 2014	Northwestern Ag Research Center Field Days
July 24, 2014	Eastern Ag Research Center Field Days
September 26-27, 2014	MSU Homecoming
November 7-8, 2014	Celebrate Ag
November 13-15, 2014	John Deere Ag Expo

Goodbye and Good Luck to Terry Theisen, Pete Olind, Willie Douma and K.C. Davis



Terry Theisen (left) and Pete Olind (right) both retired earlier this year and a reception was held in their honor on Thursday, January 16 in the Animal Biosciences Building. Pete has retired from 31 years of service in animal operations at Red Bluff and Terry has retired from 10 years of service in animal operations on the BART animal operations crew. We are grateful for their service and we wish them luck in retirement.

Willie Douma has been the Animal Bioscience Building custodian since the building was built in 2010. The department hosted a reception for Willie on Thursday, February 27, 2014. He is a friend to all of us and we wish him luck in this new chapter. Hopefully he will visit from time to time.



A special retirement reception was held for Kathleen (KC) Davis on Wednesday, March 19, 2014 to honor her 22 plus years of service as a Research Associate in the Department of Animal & Range Sciences. KC was one of our "family" and will truly be missed. We all wish her health and happiness in her retirement and hope she enjoys time spent with all those wonderful grandchildren.

Pre-Graduation Celebration

The Department of Animal & Range Sciences will host a Pre-Graduation Celebration on Friday, May 2, 2014 at 4:00 pm in the Animal Bioscience Building Atrium. Dr. Pat Hatfield, faculty and staff would like to invite you to attend. Spring 2014 graduates from the department will be honored at this event. Denise Thompson and Peggy Kelley are the organizers of the event and if you would like more information you can contact Denise at (406) 994-5582 or by Email: deniset@montana.edu or Peggy at (406) 994-3415 or by Email: Kelley@montana.edu.

Current News: Update on Position Searches



The Animal and Range Sciences Department at Montana State University is growing, and currently has searches in progress for several positions. Updates on these searches are outlined below:

Extension Forage Specialist (Assistant Professor)

Dr. Emily Glunk has been hired and will begin in mid June of 2014.

Non-Tenure Track Faculty Position –Instructor

Hannah DelCuto has been hired and will begin in July of 2014.

Extension Beef Cattle Specialist (Assistant Professor of Beef Production)

Interviews have just finished and an offer will be extended soon.

Lab Manager

Interviewing will begin on April 11, 2014.

Wildlife Habitat Ecologist (Assistant Professor)

Phone interviews have been made and reference calls are currently being conducted.

Animal Physiologist (Assistant/Associate Professor)

The Search Committee has started screening applications.

If you have further questions please contact the Animal and Range Sciences Department at 406-994-3721 or Susan Cooper at scooper@montana.edu.

Help Support Animal and Range Sciences

A gift to the department is a great way to support student and faculty endeavors. Donations can be earmarked for student scholarship funds, faculty research, the new Animal Bioscience Building, and more.

For more information about making a donation to the department contact:

Kevin Brown
Director of Development
MSU - College of Agriculture
Alumni Foundation, FD 225
Bozeman, MT 59717
PH: 406-994-4815
Email: kbrown@montana.edu

www.animalrange.montana.edu
Newsletter edited and compiled by Susan Cooper



Animal Bioscience Building