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**AVS Corner** 

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# AVS Corner, May 2015

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# CORNIER TO

**MAY 2015** 

#### **INSIDE THIS ISSUE:**

- 2015 SPRING LNA SHOW
- CHANGING FACES
- GRADUATE STUDENT WORK
- RESEARCH SPOTLIGHTS
- DID YOU KNOW?
- AND MUCH MORE!



# Beef is Back!

By Erica Prescott and Callie Rholetter

As the spring semester began, AVS students prepared for the annual Little North American show.

One exciting addition this year was the return of beef cattle to the show! The students working with this species immediately started fundraising to make the beef cattle portion of the show successful. They designed and sold t-shirts, ear tag key chains, and cow decals. Some of the extra money raised from these sales went toward the purchase of merchandise for the students, like embroidered jackets for the team members to wear on show day.

In the months leading up to the show, students in all species learned how to halter break, groom, bathe, feed and, most importantly, handle large animals. To accomplish these tasks, the students worked several hours with a partner or in teams, instilling in them the value of teamwork. As with students working in other areas, those working with beef also learned a great deal about the beef industry as a whole and will apply this knowledge in their future careers in agriculture.

Mr. Raymond Prescott judged the LNA Beef Cattle show, and it was a successful class this semester. Mr. Prescott named Mara Parmenter Grand Champion and Brittany Bozzarello Reserve Champion of beef. Beef came back with a bang and added another facet to the fantastic experience that LNA has to offer!

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Hello, and welcome to our 3rd edition of the AVS Corner!

I hope this edition of the AVS Corner finds you and your loved ones happy and well. AVS has had a productive semester. We have had another successful Little North American event and our CU Equestrian Team was named Reserve Champion during the IHSA Semi-Finals Western Championship. At the end of April, our CU Western Equestrian team headed to the National Finals in Springfield, MA and several students won top awards. We have an excellent student body and these examples represent just a few of the events our students continue to excel in as they pursue their education and career goals here in AVS. Our faculty have also seen success this semster, and we're very excited to announce that Dr. Susan Duckett and several AVS collaborators have been awarded a large USDA grant! You can read more about this on page 9.

On a sad note, the Department has experienced several losses this past semester. Mr. Devon Joshua Ward, a sophomore Pre-Veterinary Science student of AVS and member of Farmhouse fraternity passed away in January unexpectedly. Mr. Jonathan "Cory" Watt, AVS graduate in Animal Agribusiness, past member of Block and Bridle and chair of the board for the National Junior Angus Association, passed away in February after a prolonged battle with cancer. Dr. Sandra Gray (long time AVS Endocrinology Laboratory Manager) and her husband, Marvin, lost their son Michael Grav in January when he unexpectedly passed away. Each of these individuals had a positive impact on our lives as faculty, staff and students in the AVS department and we are better for having known them and will surely miss them. We ask that you please keep these individuals in your thoughts and prayers. Also, please take the time to hug your loved ones and enjoy their company. Life is short and it's important we make the most of our time.

Among our faculty, Dr. Brian Bolt, a senior lecturer in the department, has accepted an exciting position in industry with AgriClear, an online marketing platform designed to exchange livestock and other agricultural commodities. The department is sad to see him go after more than 10 years of service, but we wish him the best of luck in the future.

In closing, many of you likely had the pleasure of taking a course from Dr. Ashby "Budd" Bodine, a longtime Dairy/Biochemistry Professor and highly honored teacher (including being a recent recipient of the CU Alumni Master Teacher Award) in the Department. Dr. Bodine has been battling cancer these past few years so please keep him and his family in your thoughts and prayers as he continues to fight. As a department, we have decided to create an endowment in honor of Dr. Bodine, and we request that those who are able consider a contribution toward these efforts. As alumni of the department, you will be receiving further information about the endowment very soon, in the meantime feel free to contact me directly. I would personally encourage you to be a part of honoring a great man and mentor.

May God bless each of you and I hope you enjoy this issue of the AVS Corner.

Iim Strickland

Department Chair, AVS Email: jrstric@clemson.edu Phone: (864) 656-3138





**MAY 2015** 

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#### **AVS Corner Editors:**

Casey Wheeler **Emily Cook** Claire Profilet Karen Taylor Tina Rowland Johanna Johnson





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In addition to Showman awards, a few scholarships were given out as well. The Cory Watt Scholarship was awarded to Hannah Simmons based on work ethic and strong moral character. The scholarship is worth \$250 from the LNA class's fundraising work and donations. While this is a small amount, they hope to increase it as they continue in the future. The Coca Cola T. Ed Garrison Scholarship was given to the superior stockman, Ashley McCarter. This \$500 award was determined by the end of year test score and judging score (when all of the LNA students judged different species the day before the show).

As is tradition, the top two students from each species showed an animal from each of the other species in a class called "Round Robin." The 2015 Champion Showman was Rachel Wright, representing Dairy, and Reserve Showman was Ashley McCarter, representing poultry. Congratulations to all who participated in this wonderful experience!

#### LNA 2015 Awards

**Species Grand Showman Reserve Showman** Swine Kat Grant Carolena Hunt Poultry Katherine Miller Ashley McCarter Sheep Lauren Scott Carolina James Beef Mara Parmenter Brittany Bozzarello Dairy Hope Morris Rachel Wright **Julienne Kvasnak** Hannah Chrisley Equine



"LNA is one of the most rewarding experiences Clemson has to offer. Although frustrating and stressful at times, there's nothing like the patience, diligence and satisfaction you gain from a trained animal on show day."

- Hannah Davie



#### From the Field: Clubs & Organizations

# LIVESTOCK JUDGING TEAM THE JUDGING LIFE

The 2015-2016 Clemson Livestock Judging Team is off to a great start after completing the spring contest season! The team members, Danielle Cromwell, April Jeffcoat, Jessica Plunkard, Casey Wheeler, Alle Dann, and Cole Ramsey worked hard all semester practicing twice a week, judging livestock and giving oral reasons to their coach, Richelle Miller. The team has travelled all over the United States evaluating cattle, sheep, goats, and swine.

The first contest of the season was held in March at the Houston Livestock Show and Rodeo. On the eventful 14-hour drive to Texas. the team stopped on the way to hold practices at a number of farms, including the Oaks Brangus Ranch in Newnan, GA, V8 Ranch in Wharton, TX, and Texas A&M University in College Station, TX. The students worked day and night on improving their livestock judging skills, while taking occasional breaks to eat and sleep. The day of the contest required the students to judge twelve classes of livestock in a row and give eight sets of reasons.

The next week, the team travelled to Raleigh, NC, to compete in the

All East Contest, a two-day event of judging livestock and presenting reasons, with the additional components of keep/cull classes and evaluating the carcass quality and value of cattle, swine, and sheep. After a successful weekend the team took away a first place award for cattle evaluation, with Jessica Plunkard ranking first individually, followed by Danielle Cromwell in fourth, and Alle Dann in fifth. Danielle Cromwell also ranked first in Swine Evaluation, and Casey Wheeler placed fourth in Sheep Evaluation and seventh in the overall contest for sheep. With such a successful performance by Clemson's team, they placed second in overall evaluation.

On Easter weekend, the Livestock Judging Team got to show off their skills by helping with Little North American and officiating the South Carolina FFA State Livestock Judging contest.

Over the course of the semester, the team members have developed solid relationships and they look forward to sharing their knowledge and skills in the future as teaching assistants for the Livestock Evaluation course in the fall.

-Cole Ramsey and Casey Wheeler





### CLEMSON COLLEGIATE HORSEMAN'S ASSOCIATION NETWORKING AND FUN WITH CCHA

The Clemson Collegiate Horsemen's Association had a great time attending the American Collegiate Horsemen's Association National Convention from March 12-15. This convention was hosted by Texas A&M and Sam Houston State University in College Station, Texas. The club toured two breeding facilities and a cutting horse training ranch, and also attended the Houston Livestock Show and Rodeo! Sophomore Nikki Baldwin was elected as National Officer Vice President, relieving current CCHA President Kelly McKinnell (Junior) of the role. Also, Sophomore Rebekah Welborn was elected as National Officer Treasurer. We are very proud of these two members representing Clemson as National Officers of the American Collegiate Horsemen's Association!

Later in the semester, CCHA hosted a Kids Day, a fun event to educate local children about horses and horse safety. Activities included arts and crafts and pony rides at the Equine Center. The club also assisted with the JD Massey show, a renowned Saddlebred showing event, and visited a Friesian Marketplace, an upscale Friesian barn located in Greer, SC.

-KELLY MCKINNELL

#### From the Field: Clubs & Organizations

# PRE-VETERINARY CLUB GIVING BACK TO THE COMMUNITY AND PREPARING FOR THE FUTURE

The Pre-Vet Club had a spring semester replete with fascinating speakers! Representatives from several veterinary schools, including the University of Missouri, the Virginia-Maryland College of Veterinary Medicine, and Ross University, travelled to Clemson to share the details of their programs with the club. In addition, club members learned valuable career advice from the Vice President of the American Pre-Veterinary Medical Association and a Columbia, SC, veterinarian with ties to the Army. The students of the Pre-Vet Club also dedicated their time to serving the community by organizing a fundraiser and a supply drive for Pickens County Animal Shelter, a wonderful organization that was in dire need of help. To fund Pre-Vet's own trips and activities throughout the semester, club members got creative and constructed a calendar showcasing the students' favorite Clemson animals! These calendars, along with the club's personally designed t-shirts and fleece pullovers, can be purchased by contacting Emily Cook at ekcook@clemson.edu.

#### -EMILY COOK



# Block & Bridle MAKING AN IMPACT FROM TIGERTOWN TO TEXAS

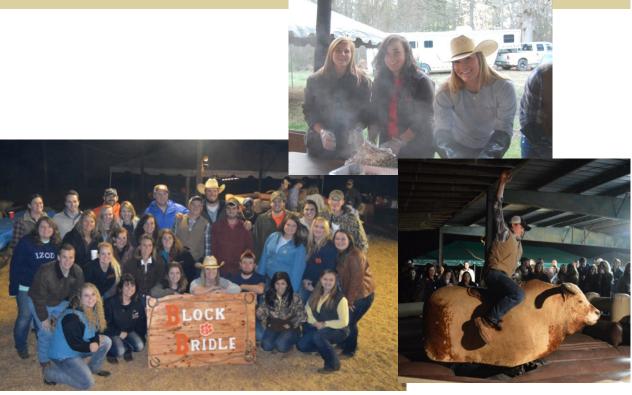
BLOCK AND BRIDLE HAD A BUSY AND EXCITING SPRING SEMESTER!
IN FEBRUARY, MEMBERS HAD THE OPPORTUNITY TO TRAVEL TO SAN ANTONIO, TX TO REPRESENT THE CLUB AT THE NATIONAL CATTLEMEN'S BEEF ASSOCIATION CONVENTION AND TRADE SHOW. MEMBERS NETWORKED WITH CATTLE INDUSTRY PROFESSIONALS FROM ACROSS THE COUNTRY AND ATTENDED KEYNOTE PRESENTATIONS AT THE CONVENTION'S CATTLEMEN'S COLLEGE. TO HELP FUND THIS OPPORTUNITY, THE CLUB ORGANIZED IT'S FIRST ANNUAL BARREL RACE IN

JANUARY! IT WAS QUITE A SUCCESS, WITH OVER 50 RUNS TAKING PLACE THROUGHOUT THE DAY. THEY ARE EXCITED TO CONTINUE TO HOST THIS EVENT IN COMING YEARS. THE 4TH ANNUAL BULLS AND BBQ TOOK PLACE THIS SPRING AS WELL. WITH AROUND 200 TICKETS SOLD, THE CLUB HOSTED A SUCCESSFUL NIGHT OF FOOD AND FUN! THIS YEAR, THE CLUB WAS EXCITED TO SERVE WHOLE HOG BARBECUE FROM A HOG RAISED AT THE CLEMSON SWINE UNIT. LIVE MUSIC FROM CHRIS VITA SET THE TONE FOR THE NIGHT, COMPETITORS TOOK TURNS RIDING THE

MECHANICAL BULL, AND EXCITING PRIZES WERE AUCTIONED AND RAFFLED OFF.

LATER IN THE SEMESTER, THE CLUB HAD ITS BANQUET AND AWARDS NIGHT, AND THE NEW EXECUTIVE COMMITTEE WAS ELECTED. THE CLUB WAS SAD TO SAY GOODBYE TO SEVERAL GRADUATING SENIORS, BUT IS SO PROUD AND EXCITED FOR THEIR FUTURE ENDEAVORS! THE CLUB ALSO SAID GOODBYE TO THEIR ADVISOR, DR. BRIAN BOLT, AFTER THE MANY YEARS THAT HE HAS HELPED LEAD THE CLUB, AND CAN'T THANK HIM ENOUGH FOR ALL HE HAS DONE.

#### -IILLIAN MILOPOULOS



#### SIGMA ALPHA

#### BRINGING AGRICULTURE BACK TO CLEMSON'S CAMPUS

THIS SPRING THE SISTERS OF SIGMA ALPHA PUT THEIR BEST BOOTS ON AND HELPED TO BRING AGRICULTURE BACK TO THE FOREFRONT AT CLEMSON UNIVERSITY. THROUGH SISTERHOOD, PHILANTHROPY, AND AGRICULTURE EDUCATION CLASSES AT LOCAL ELEMENTARY SCHOOLS, THE SISTERS STRIVE TO MAKE AGRICULTURE THEIR TOP PRIORITY. PHILANTHROPY IS ONE OF THE MANY THINGS THAT THE SISTERS OF SIGMA ALPHA PARTICIPATE IN THAT IS NEAR AND DEAR TO THEIR HEARTS. THE BIGGEST PHILANTHROPY EVENT IS THE STUD AUCTION AND THE BENEFITS FROM THE EVENT GO TO HEIFER INTERNATIONAL. HEIFER INTERNATIONAL IS A NON-PROFIT ORGANIZATION THAT DISTRIBUTES ANIMALS AND AGRICULTURAL TRAIN-ING AND KNOWLEDGE TO HELP ERADICATE POVERTY AND HUNGER. THIS YEAR THE AUCTION BROUGHT IN \$1,200! A LOT OF NEW FACES JOINED THE GROUP



THIS SEMESTER AS WELL! NINE NEW GIRLS WERE ACTIVATED, EACH WITH A PASSION FOR SHARING WHAT AGRICULTURE MEANS TO THEM. THIS SEMESTER IS ALSO THE FIRST TIME IN A WHILE THAT THE GIRLS HAVE GONE ON A RETREAT. THE MOUNTAIN WEEKEND WAS A WAY TO PROMOTE SISTERHOOD AND CONNECTION BY DISCONNECTING IN THE VIRGINIA MOUNTAINS!

#### -HANNAH SIMMONS



# DAIRY SCIENCE CLUB DAIRY DAYS



This semester, the Dairy Science Club has been busy, despite the snow and ice. Although the club was unable to travel to the American Dairy Science Association conference in Kentucky due to the weather, the team worked hard, practicing every week for the quiz bowl portion, putting together a Hollywood themed scrapbook, and preparing two paper presentations;

one about robotic milking systems and another discussing probiotics in yogurt. They would definitely have put on an impressive showing! The show team worked hard with a number of new, younger heifers along with many older ones to prepare for the Spring Dairy Show in Anderson. Team members showed cows in both Showmanship and Conformation over the first weekend in March, bringing home ribbons in both categories. The club also had several work days in February in order to prepare for the Dairy Farm's inspection, which it passed with flying colors! Finally, the club had a student labor auction fundraiser, in which one could "rent" students for a few hours to help do yard-work or any other work that might need doing. In total, the club earned about \$450 helping do work others didn't want to do! The club also has merchandise available for sale including new and old T-shirts and croakies for anyone interested, email DSC-L@clemson.edu!

-AVERY GOHO





# AVS AMBASSADORS AMBASSADORS IN ACTION

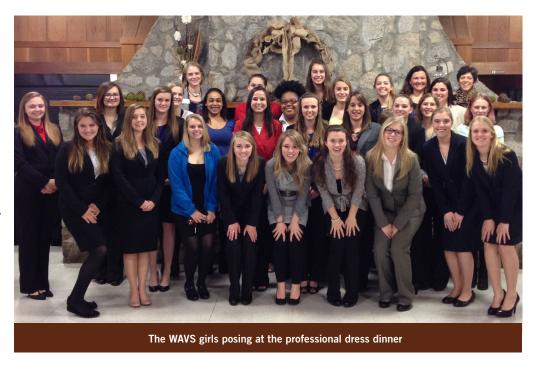
Springtime means one thing to the AVS Ambassadors: Destination Clemson! This is a program that takes place during March and April that allows newly accepted students to learn more about our department and show them the many reasons that they should choose Clemson for their undergraduate AVS education. The Ambassadors play a key role in this program by answering questions for the prospective students and their families and giving them a first-hand account of the unique and valuable opportunities available in the AVS Department. This year, the Ambassadors aimed to recruit the largest freshman class to date for Fall 2015, so they were busy at work making phone calls to prospective students and greeting visiting families. With summer orientation fast approaching, the AVS Ambassadors worked throughout the semester to prepare for the arrival of Clemson's newest students and welcome them into the AVS family. Some of the improvements they made included updating the AVS informative video, as well as taking to social media to promote enthusiasm among accepted students with a Clemson AVS Class of 2019 Facebook page, as well as a brand new Twitter account. We encourage you to follow us for updates at @ClemsonAVS!

-EMILY COOK

# WAVS COMPETITION CREATES COMMUNITY

DESPITE A FEW MEMBERS OF THE WOMEN IN ANIMAL AND VETERINARY SCI-ENCES (WAVS) LIVING-LEARNING COMMUNITY CHANGING THEIR MAJORS. THE FRIENDLY ATMOSPHERE ON THE WAVS HALL REMAINED UNCHANGED. THE LADIES CONTINUED TO BOND OVER MEALS IN HARCOMBE DINING HALL. THURSDAY NIGHT STUDY SESSIONS, WARDROBE EXCHANGES FOR FORMAL EVENTS, AND CARPOOLS TO CLEMSON UNIVERSITY'S FARMS. SOME OF THE LASTING FRIENDSHIPS BETWEEN WAVS MEMBERS CAN BE ATTRIBUTED TO THE LIVESTOCK EXHIBITION CLASS (LNA) THIS SEMESTER. IN WHICH MANY OF THE WAVS MEMBERS WERE ENROLLED. LNA CREATED A FRIENDLY BUT COMPETITIVE ATMOSPHERE AMONG THE DIFFERENT SPECIES EXHIBITED, BUT ALSO EVOKED A GENUINE CONCERN AND CARE FOR THE PROGRESS EACH MEMBER WAS MAKING WITH HER ANIMAL. EVEN THOSE WHO WERE NOT ENROLLED IN THIS SEMESTER'S LNA CLASS FOUND GREAT JOY IN DISCUSSING THEIR FRIENDS' ANIMALS AND TAGGING ALONG FOR FARM VISITS. THE MOST RECENT EVENT THAT BROUGHT ALL OF THE WAVS MEMBERS TOGETHER WAS THE PROFESSIONAL DRESS DINNER. THE DINNER GAVE THE WAVS GIRLS THE OPPORTUNITY TO SPORT THEIR BEST INTERVIEW ATTIRE WHILE ENJOYING DINNER AND LEARNING MORE ABOUT PROFESSIONAL DEVELOPMENT IN THE COMPANY OF ADVISORS DR. TIFFANY WILMOUTH, DR. JOHANNA JOHNSON. AND MRS. KATHY STILL, AS WELL AS GUESTS MRS. REBECCA SHIRLEY AND MRS. STEPHANIE O'BRIEN.

-BAILEY HUNT



#### **AVS Spotlight**

#### AVS STAKEHOLDER SPOTLIGHT: WATSON DORN

In the spring of 2014 Dr. Strickland established the AVS Stakeholder Advisory Board, which includes individuals from around the state and country and across many industries and fields. Each member has agreed to offer insight and advice in an effort to help ensure that the department meets the needs of our students as well as those of our communities. In our newsletter, we will be taking the opportunity to highlight members of our stakeholder board, what they do, and their relationship with Clemson University. In this first spotlight, meet Watson Dorn!

Watson Dorn is a third generation dairy farmer at Hickory Hill Milk, which has been in his family since 1764. Watson's father, Jim, was recently inducted into the Clemson Dairy Hall of Fame. Today, Watson continues to run the farm as a family business. He and his wife, Lisa, are both Clemson graduates. They have a son, Daniel, who is currently a junior at Clemson, and a daughter, Courtney, who will attend Anderson University in the fall.

About a year and a half ago, Hickory Hill Milk began supplying the milk for Clemson Blue Cheese. The Dorn family works closely with Clemson's cheese maker, Anthony Pounders; assistant cheese maker, Bill Chum; head of Clemson Blue Cheese, Andrea Meadows; and several student employees. For the past year, Watson and Lisa Dorn have been managing the production and distribution of the cheese, and as a result of their work, Clemson Blue Cheese can now be found in most Bi-Lo grocery stores, and it is distributed to many restaurants through Sysco and US Foods.

When asked about the importance of his role on the AVS Stakeholder Advisory Board, Watson responded, "I offer the farmers' perspective. I have a passion for Clemson, and 7 or 8 years ago, it seemed like Clemson was turning away from agriculture. I like seeing that that is changing now, and I want to be a part of making sure Clemson still has a strong emphasis on agriculture."

-EMILY COOK





#### The Changing Face of AVS

NEW FACULTY HIRE Dr. Jeryl (Jeri) Jones, DVM, PhD

This semester, the AVS department welcomed Clemson alumna Dr. Jeryl Jones to the faculty! Her teaching responsibilities currently include AVS senior seminar, master's thesis, and undergraduate research courses. As Editor-in-Chief of the scientific journal, Veterinary Radiology & Ultrasound, Dr. Jones is able to provide valuable insights into scientific writing for the classes she teaches.

Initially aspiring to be a zoologist, Dr. Jones received her bachelor's degree in Zoology here at Clemson. While at Clemson, her love for research developed as she was given the opportunity to participate in undergraduate research. She then went on to earn the title of Doctor of Veterinary Medicine from the University of Georgia. After working as a private practice veterinarian for 7 years in Syracuse, NY and Aiken, SC: Dr. Iones was ready for a new challenge. So she decided to enter a residency program at Auburn University and become a specialist in veterinary radiology. During her residency program, Dr. Jones also rediscovered her interest in research and went on to earn a Doctor of Philosophy in Biomedical Studies from Auburn

University. Before coming to Clemson, Dr. Jones served as a faculty member for Virginia Tech's veterinary school and West Virginia University's animal science department.



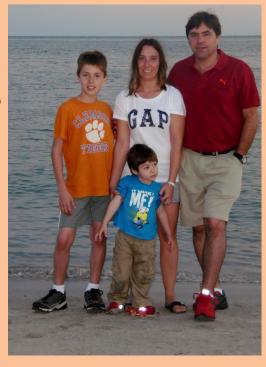
Dr. Jones's research interest focuses on using computed tomography to study lower back diseases in working dogs. She is also working with Dr. Heather Dunn and local veterinarians to grow the number of competitive internship opportunities for preveterinary students.

When not teaching, conducting research, developing programs, providing radiograph consultations, or editing research articles; Dr. Jones enjoys spending time with her husband Bob, dog Ellie, and cat Vitis.

TINA ROWLAND

#### **Meet the Post Docs!**

Ariel Miranda and Adriana Pordomingo are both from Argentina and are spending 9 months in Clemson to practice lab techniques, English, and to expand their professional and social networks. Ariel received his degree in Veterinary Sciences and his PhD from the National University of La Pampa, which is located in La Pampa, Argentina. Adriana received her Bachelors of Science degree in Chemistry, also from the National University of La Pampa, and is currently working on her doctorate degree in Veterinary Sciences at the National University in Buenos Aires. Ariel is working under



Dr. Scott Pratt, measuring the impact of forage toxins on the immunological response of beef cattle. Adriana is working with Dr. Susan Duckett, perfecting her lab skills for performing analysis on meat quality. When out of the lab, Ariel enjoys deer and wild boar hunting while Adriana rides horses and does puzzles. Ariel and Adriana have two children, Pedro and Eugenio, who are 12 and 3 years old. Pedro enjoys soccer and fishing while Eugenio spends his time painting, drawing, and swimming. Ariel and Adriana would like to thank Clemson University as well as the faculty/staff/students of AVS for the opportunities that have been made available to them.

-KAREN TAYLOR

#### Grads on the Go

#### THE AVS GRAD STUDENT ASSOCIATION'S CHILI COOK-OFF

Every semester, AVSGSA participates in a philanthropy event to benefit the community; many of you may remember our extremely successful canned food drive last semester. This semester, our event took on a more personal note, as we hosted a Chili Cook Off to raise money for one of our own. In October, the sister of Samantha Calcatera, one of our PhD students, was in a severe car accident. She underwent several surgeries requiring weeks of recovery, and more therapy is anticipated in the coming months. We had nine contestants in the Chili Cook Off and a wide variety of chili dishes available for tasting. Between our contestants, participants, and donations, the event raised \$665 to aid the Calcatera family. We would like to give an enormous "THANK YOU" to all our contestants, participants, judges, and CAFLS faculty and staff who made this event possible! Further, we would like to congratulate our winners:

1st Place: Tom Still, with his TomKat "Big B" World Famous Chili 2nd Place: Mike Finney, with his Delicious Chili Most Popular: Alec Nelson, with his Keep Calm and Carrion Chili.

-KAREN TAYLOR

#### **MEET OUR NEW GRAD STUDENTS!**



Tina Rowland
Degree Program: M.S.
Major Advisor: Dr. Jeryl Jones
Undergraduate Institution: Clemson University
Hometown: Columbia, South Carolina
Research Focus: Determining the relationship
between mean muscle mass and percent intervertebral foraminal area change in flexion and
extension positions of military working dogs using
computed tomography.

"What's not to love about Clemson University?"



Cassie Wycoff
Degree Program: PhD
Major Advisor: Dr. Kristine Vernon
Undergraduate Institution: North Carolina State
University

Hometown: Angier, North Carolina Research Focus: Determining how slow feeding of forages impacts feed behavior and gut health of horses.

"As an agent with the Clemson Cooperative Extension Service, a PhD in Animal Science will aid in the achievement of my professional goals within the organization and better serve the citizens of South Carolina"



#### **Graduate Research Spotlight**

Commensal rodents (rodents that live in close association with man) are some of the most destructive and economically important pests worldwide. Of these commensal rodents, house mice (Mus musculus), are arguably the most numerous and widespread. The damages and dangers of mouse infestations go far beyond the



typical household nuisance. These pests not only destroy stored food products and cause physical damages to buildings: they also have the potential to spread numerous pathogens including Salmonella and Campylobacter between livestock and humans. My research is directed towards furthering our knowledge of house mouse ecology in environments where active organic rodent control programs are in place. To learn more about house mouse movements, abundance, and behavior in these situations we are using a variety of techniques to monitor mouse activity. By capturing mice in live traps, tagging them with miniature ear tags and releasing them back into the population we are able to recapture these individuals at a later date. This technique, called CMR (capture, mark, recapture), helps us understand how mouse populations are affected by rodent control treatments and how their movement may differ in response to these control measures. We are also using high definition closed circuit video cameras to monitor mouse behavior when presented with various control devices and bait options. All of these methods are providing data that will ultimately help pest control operators make more informed decisions when creating programs to control these pests. Improved programs will help mitigate the enormous damages these pests present to the lives of humans and our livestock.

-SEAN NOLAN, working with Dr. Peter Skewes

#### DID YOU KNOW? P&A CELEBRATES THE BIG 6-0!

This year marks the 60th birthday for Clemson's beloved Poole Agriculture Center (aka the P & A Building). The building was erected in 1955 in memory of Robert Franklin Poole, Clemson's 7th president. As the University's first alumnus president, he was intimately aware of the mission of Clemson University. President Poole dedicated his time in office largely to ensuring the continuation of Clemson's cooperative extension programs across the state of South Carolina. Over the years, the Robert Franklin Poole Center has housed numerous programs and departments. Those which would eventually become what we know today as the Department of Animal and Veterinary Sciences included Dairy Science, Animal Science, Animal Husbandry, Poultry Science, Animal & Food Industries, Animal

Industries and Animal Physiology. Despite all the changes that have occurred at the University, P&A has remained a proud 205,515 square foot reminder of the agricultural background on which this school was founded. Hopefully this amazing building (perhaps with some renovations!) will remain a key location for fostering education for another 60 years!



#### -TINA ROWLAND



#### SIMULATED BIRTH: A HANDS-ON LEARNING EXPERIENCE

Farmer John is cold and tired. It's February, dawn is still a few hours away, and he is making his third trip to the barn in one night to check on a heifer in labor. Questions race through his head: What should I do? Is the calf too big? Is it in the right position? Is mom getting too tired to push?! Would you know what to do in Farmer John's situation? Well, cattle producers across the Southeast and Clemson University students are getting a hands-on learning experience using Clemson University Extension's Calving Simulator.

Calving difficulty (dystocia) can be one of the leading causes of profit loss in beef cattle production. Not only is the calf's life in jeopardy during a dystocia event, but increased mortality or decreased subsequent reproductive performance of the dam can have significant economic impacts on an operation as well. Knowing how to assist with difficult births and when to call a professional for help can be the difference between a healthy mom and baby and a deadly outcome. In an effort to enable cattle producers and Animal Science students to assist cattle with difficult births and to know when to contact a veterinarian, the Clemson Cooperative Extension Service recently purchased a calving simulator. Prior to Clemson's purchase of this unit, the use of similar simulators was exclusive to veterinary schools and the training of their students. Clemson's simulator is a life-sized, anatomically correct cow-calf pair that allows University educators to demonstrate multiple delivery methods and proper use of tools. Position of the calf within the cow can be changed to mimic different presentations commonly seen in dystocia. The removable back cover of the cow, along with water-jacketed birth canal of the simulator, allows users to see into the cow, as well as palpate the calf. Being able to accurately identify the structures of the calf by touch/feel is vital to assisting the cow with the birthing process. In addition to gaining experience repositioning the calf and determining presentations, users can practice operating equipment commonly used to facilitate parturition. It is imperative producers and students understand which situations they can assist with, but also look for key signs, which would indicate they should call for assistance from a trained veterinarian. The simulator has been used across South Carolina and the Southeast at the Clemson Extension AI School, undergraduate courses, field days, and Cattlemen's meetings.

#### - MATT BURNS





#### Researchers Attain USDA Grant to Study Fescue Toxicosis at Clemson!

In the fall of 2015. Dr. Susan Duckett and her research team will utilize Clemson's brand new small ruminant research facility to begin to take an in-depth look at the effects of fescue toxicosis on ruminant fetal development and postnatal growth. This project will be a collaborative effort, employing the expertise of Dr. Scott Pratt, Dr. John Andrae, Dr. Nathan Long, and Dr. Jim

Strickland, as well as assistance from scientists at Colorado State University and the USDA Agriculture Research Service. Previous studies have shown that feeding endophyte-infected tall fescue seed to pregnant ewes causes a significant reduction in fetal growth, and this study aims to determine how exactly this occurs. Over the course of four years, Dr. Duckett and her team will assess how

feeding tall fescue seed to ewes affects each stage of fetal growth in order to determine the time period in which the fetus is impacted most severely. The study will also involve an assessment of postnatal growth to determine the long-term effects of fescue toxicosis. Due to the tremendous pertinence of this study to the food animal industry, the USDA is providing a \$450,000 grant

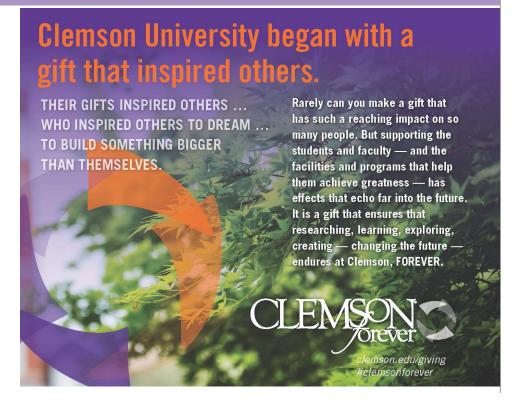
to support the project. Although the research will be conducted on sheep, the conclusions drawn will be applicable to any ruminant grazing tall fescue, including beef cattle and goats. By pinpointing the mechanism of tall fescue toxicosis during gestation, Dr. Duckett and her team hope to alleviate its negative impact on ruminant production.

-EMILY COOK

# EXPANSION OF INTERNSHIP OPPORTUNITIES

Dr. Jeryl Jones and Dr. Heather Dunn are working to expand the department's internship programs by working in conjunction with local veterinarians. They hope to strengthen the value of internships by selecting students through a competitive application and interview process. They are also focusing on working directly with local veterinarians to ensure that the students gain a comprehensive and fulfilling experience while interning. By making this a graded course and therefore a more structured internship, they are better able to ensure a positive experience for all involved. For students, this may mean access to more enriching activities and opportunities to learn. For those offering the internship, greater structure helps ensure motivated student interns who remain responsible and accountable throughout the internship as many of those who provide internships invest considerable time and energy into mentoring students. The ultimate goal is to provide mentors with quality students and provide students with quality experiences. Dr. Dunn and Dr. Jones are proud to announce that the first coordinated internship of this new program will be with the Greenville Zoo under Dr. Christy Belcher! They are always on the lookout for new participants, so if you're interested in learning more about the program or becoming involved, please contact Dr. Heather Dunn (walkerd@clemson.edu) or Dr. lervl Jones (iervli@clemson. edu).

-TINA ROWLAND



#### **AVS News & Awards**

#### AVS Awards

Patty Sharko received the SC Cattlemen's Association "Educator and Industry Service of the Year" award at their annual conference in Columbia on March 7, 2015!

Jessica Plunkard and Jenna Washburn, two AVS honors students, both received travel grants from the Honoros College for travel this summer!

As last year's recipient of the Bradley Award for Mentoring in Creative Inquiry, Dr. Heather Dunn was the April 2015, Plenary speaker at CU/FOCI Event presenting "Creative Inquiry: From Concepts to Reality."

Also in April, several students won top awards among more than 1900 riders as part of the CU Western Equestrian Team at the IHSA National Finals in Springfield, MA!

John Roof – 5th – AQHA Team Open Reining; 9th – Individual Open Reining

Derek Foltz - 3rd - AQHA Team Intermediate Horsemanship

Shealy Melton – 9th – Individual Advanced Horsemanship

Chloe Iversen - 7th - AQHA Team Novice Horsemanship

 $Allyssa\ Priester-3rd-AQHA\ Team\ Advanced\ Horsemanship;\ 7th-Individual\ Novice\ Horsemanship$ 

Krista Queen – 9th – AQHA Team Beginner Horsemanship

Rebekah Strunk - 7th - AQHA Team Open Horsemanship; 10th - Individual Open Horsemanship





#### News

This semester Dr. Gustavo Lascano and the Department of AVS initiated a Seminar Series of invited speakers. We were honored to have a number of excellent guests and hope to continue this series in coming semesters! If you have suggestions for speakers or would like to be made aware of their visits, please let us know! This semester our speakers included:

- Dr. Enrique Pavan National Institute for Agricultural Technology, Argentina
- Dr. Emanuel Oliveira São Paulo State University, Brazil
- Dr. Don Palmquist The Ohio State University
- Dr. Dale Bauman Cornell University
- Dr. Bill Thatcher University of Florida
- Dr. Tom Jenkins Clemson University
- Dr. Rebecca Stinson VP American Veterinary Medical Association
- Dr. Miguel Castillo North Carolina State University



Dr. Heather Dunn and her husband Wally ran the 2015 Boston Marathon in honor of Cory Watt, AVS Grad! Please join them to get to the ultimate finish line: a world without cancer! http://www.runDFMC.org/2015/heatherd

#### **AVS Research Highlights**

AVS has been busy this year disseminating important research findings! See something that looks interesting? Let us know! More information is available on the AVS website at clemson.edu/avs.

#### **Scientific Publications & Presentations**

Calcatera, S., D. Reicks, A. Feltus, S. Pratt (2015). Differential microRNA expression in sperm cells and seminal plasma due to PRRSV infection. ADSA-ASAS Midwest Meeting.

Duckett, S. K. R. Arnoni, G. Volpi Lagreca and M. Alende. 2015. Enhancing the fatty acid composition of lamb via oral oil supplementation. J. Anim. Sci. 93:39. Presentation at Southern Section Animal Science Meeting.

Johnson, J., T. Wilmoth, G. Lascano (2015). Living-learning communities: Keeping women in STEM. Society for Industrial-Organizational Psychology Annual Conference.

Koch, B. M., G. Volpi Lagreca, M. Alende, J. G. Andrae and S. K. Duckett. 2015. Timing of exposure to high-concentrate diets vs. pasture on carcass traits and meat quality of steers. J. Anim. Sci. 93:22. Presentation at Southern Section Animal Science Meeting.

Pordomingo, A. B., A. J. Pordomingo, E. Pavan, and S. K. Duckett. 2015. Effects of animal age, pasute or feedlot finishing and postmortem aging of Angus steers in central Argentina: I. Performance, carcass traits, and tenderness and color of the longissimus dorsi muscle. J. Anim. Sci. 93:24. Presentation at Southern Section Animal Science Meeting.

Pordomingo, A. B., A. J. Pordomingo, E. Pavan, and S. K. Duckett. 2015. Effects of animal age, pasute or feedlot finishing and postmortem aging of Angus steers in central Argentina: II. Proximate composition and fatty acid profile of longissimus dorsi muscle. J. Anim. Sci. 93:24. Presentation at Southern Section Animal Science Meeting.

Sharko, P. (January, 2015). North American Veterinary Conference (Orlando)

- Problems with small ruminant parasite control
- How to do a great field necropsy and what you need to do one
- Alpaca foreign animal disease investigation & management recommendations

Sharko, P. (February, 2015). Western Veterinary Conference (Vegas)

- Small ruminant health basics
- Small ruminant problems to avoid
- Effects of trace minerals on goat health
- Poisonous plants in small ruminants

Volpi Lagreca, G., M.Alende, A. Fluck, and S. K. Duckett. 2015. Supplementation of glycerol or fructose via drinking water to enhance marbling deposition and meat quality in finishing cattle. J. Anim. Sci. 93:23. Presentation at Southern Section Animal Science Meeting.

#### Look for us at JAM 2015 in Orlando, FL!

Alende, M., L.E. Bowen, P.G. Ranasinghe, G. Volpi-Lagreca, G.J. Lascano, and J. Andrae. 2015. Comparison of different four methods for determining in vitro digestibility of annual ryegrass.

Young, K., M. Alende, G.J. Lascano, M. Holt, and T.C. Jenkins. 2015. Changes in fermentation and biohydrogenation intermediates in continuous cultures fed corn grain differing in rates of starch degradability.

Ranasinghe, P.G., N.A. Gomez, K. Rowland, A. Caprio, and G. J. Lascano. 2015. The Effects of Substituting True Protein with Non-Protein Nitrogen in Holstein Dairy Heifers Precision-Fed Different Forage to Concentrate Ratios.

Bowen, L.E., A. Bowyer, S.A. Weeks, N.A. Gomez, and G.J. Lascano. 2015. Precision-feeding dairy heifers different levels of dietary fiber and high rumen undegradable protein.

#### What's Going On!

# 2015 Calendar of Upcoming AVS-Related Events

#### MAY

May 2

CU Equestrian Team, IHSA Nationals, MA 4-H Horse Program Benefit Trail Ride

May 8

Spring Graduation

May 19

Lancaster Cattlemen's Educational Meeting\*

May 22

Backyard Poultry Workshop\*

#### JUNE

June 13

State 4-H/FFA Meat Goat Project Kick-off\*

June 16 - July 17
AVS Orientations

June 24- 27

SC State 4-H Show, Clemson, SC

#### **JULY**

**July 6-10** 

SC 4-H Horsemanship Camp, Garrison Arena

**July 12-16** 

Joint Annual Meeting (JAM) of ADSA and ASAS, Orlando, FL

July 13-17

Tiger Talent Equestrian Camp, Equine Center

July 31-August 2

South Carolina Junior Beef Round-Up

#### **AUGUST**

August 18

WAVS Beach Party

August 19

Bash @ the Barre - First Day of Classes

August 26

AVS Welcome Back BBQ

August 29

Simpson Station Field Day\*

#### **SEPTEMBER - OCTOBER**

SEPTEMBER 11

CAFLS Family Weekend

October 7

CAFLS Career Fair

October 9
CAFLS Tailgate

**EQUINE EVENTS** 

CLEMSON AVS DEPARTMENT EVENTS

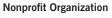
**GENERAL EVENTS** 

\* More information and additional extension events listed at http://www.clemson.edu/extension/livestock/events.html











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# **RECONNECT!**

Interested in reconnecting with the AVS department? Contact us, and we can talk about what form that might take. Perhaps you're interested in being a guest speaker for one of our classes, acting as a sponsor for a WAVS member or moving a pet project forward. If you saw something here that piqued your interest, let us know! Former club members, students and faculty — we would love to hear about what you're up to and where you are!

Be sure to visit the department website for more information, to join our mailing list (mailing or email addresses) and to suggest stories for future newsletters.

Kathy Still

Find us at: clemson.edu/cafls/departments/animal\_vet\_science/

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