



## ADS highlights

Teaching **2-3**

Clubs and Activities **4-5**

Research **6-7**

Extension **8-9**

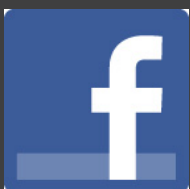
Student Spotlight **10**

## Check us out on Facebook

Follow us on Facebook for the latest announcements and images from the department and its clubs.



- Mississippi State University Animal & Dairy Sciences
- Mississippi State University Horse Unit
- Mississippi State Block and Bridle Club
- Mississippi State University Rodeo Team Club



## Message from the Department Head

It has been my honor to serve the Animal and Dairy Sciences Department this past year as Interim Head. As you read this newsletter, I believe you can join me in congratulating the Faculty, Staff, Graduate and Undergraduate Students for their hard work and accomplishments this year. As we begin a new academic year, we are excited that we have an increase in student enrollment with 287 undergraduate students.

I want to recognize and congratulate the following graduate students who have completed their program of study and graduated this past academic year: Ph.D. Life Sciences (Physiology) - Jamie Curbelo, (Dr. Ryan); Master of Science, Agriculture – Heather Duoss (Dr. Schmidt), Amanda Frahm (Dr. Hill-Ward), Landon Marks (Dr. Parish), Kevin Necaie (Dr. Ryan), Katie Pfeiffer (Dr. Larson), Daniel Smith (Dr. Hill-Ward), Amanda Youngblood (Dr. Rude), Ellen Haas (Dr. Willard), non-thesis.

While we highlight special accomplishments, I want to acknowledge the daily devotion and team work of Faculty, Staff and Students that makes our department successful in providing educational opportunities both within and outside the classroom for students. I am thankful for the leadership of Administration at Mississippi State University and the resources provided to our department. We are also grateful for the support and encouragement of our Alumni and Friends. Your encouragement, advice, time and sharing of your expertise and knowledge allows our students and 4-H/FFA youth to comprehend their study of Animal Sciences and apply this knowledge on the farm and in the animal industry.

We look forward to the accomplishments that will be made this academic year, training students, conducting research and providing educational programs for our animal industry.

**Mark Crenshaw**  
Interim Head

## More than Just Horse'n Around

The Animal and Dairy Sciences equine courses are more than just books and lectures as this year students were asked to go beyond the classroom assisting with local youth equine programs. During the spring semester the students from the Animal and Dairy Sciences equine courses were asked to assist with two equine youth events hosted by the Animal and Dairy Sciences department on the Starkville campus, the FFA State Horse Judging Contest and the Starkville Academy Field Day. The equine students demonstrated their horse handling skills riding for the FFA youth participating in the judging contest, and later in the month of April, these students demonstrated their horse knowledge educating the elementary students from Starkville Academy as they covered [basic care of the horse through handling demonstrations](#). Horses used in the equine courses and in these events were ones graciously donated by Alumni and other supporters of the equine program.



Equine students have been actively representing the Animal and Dairy Sciences department and Mississippi State University at both collegiate competitions and other equine events within the state. The equestrian team, the longest running collegiate equestrian team in Mississippi, proudly continued its tradition of successes competing at 4 IHSA sanctioned collegiate competitions this year. The team brought home a total of 19 ribbons; placing the team in the Top Ten for both the hunt and stock seat disciplines. Coached by Dr. Molly Nicodemus, Mississippi State University is the only school in Mississippi with a stock seat team. Next year the team will be moving to a new region where they will be competing against schools in Georgia, Alabama, and South Carolina. The coaching staff will gain a new face as Mississippi State University graduate student Toree Bova steps into her new coaching position alongside Dr. Nicodemus.

The horse judging team continued this Top Ten tradition being named Top Ten Finalist in every category of the limited division at the AQHA World Championship Horse Judging Competition, including placing 5th overall in the Oral Reasons division. Team member Sarah Taylor won Top Ten honors in the Performance division. This was the first time since 2001 that the Mississippi State University judging team attended AQHA Worlds. The Team was coached by Dr. Nicodemus and

## MSU equine students teaching the next generation of students

Equine student Emma Stamps and "Choice" demonstrating handling skills to Starkville Academy kindergarteners

- Photo courtesy of Agricultural Communications

Animal and Dairy Sciences graduate students Shannon Lindsey and Amanda Youngblood.

When not representing their school at collegiate competitions, the equine students are busy volunteering their time. At the beginning of the school year, the Horseman's Association, an undergraduate equine club, went to the Palmer Home therapeutic riding center in Columbus, Mississippi to volunteer their time assisting with the youth in the therapeutic riding program. They continued the tradition of giving back to the community by traveling to Jackson in February to assist the MS Quarter Horse Association with the Dixie Nationals Quarter Horse Show.



Equestrian team member Nikki Jacoutot at an IHSA hunt seat competition in the fall 2011 semester





# 25th Annual Dixie National Intercollegiate Livestock Judging Contest

Livestock judging contests help students develop critical thinking and decision making skills, as well as teach students to defend their decisions in a logical manner. Students who participate in livestock judging programs develop skills that last a lifetime, and aid them in any career path they choose to take. The 25th annual Dixie National Intercollegiate Livestock Judging Contest was held on February 11, 2012.

The Dixie National Contest is unique in that contestants judge only cattle, as compared to other intercollegiate contests, which include hogs, sheep, and/or goats as well. The contest saw competitors from across the country including 68 competitors from 9 senior colleges and 74 competitors from 8 junior colleges. The contest

was made possible with tremendous support from many individuals who volunteered their time as officials, card runners, computer experts, group leaders, cattle handlers, and supervisors. The Mississippi State University Block and Bridle Club acted as cattle handlers for the contest.

The contest consisted of 12 classes of cattle in 4 different divisions. Cattle for the contest were provided by the MSU Animal and Dairy Sciences Department, Clear Water Cattle, Bouie River Beefmasters, 4G Farms, Reeves Beefmasters, Jumping J Beefmasters, Holland Farms, Crimson Springs, G13 Angus Ranch, Wood Angus, Legacy Cattle Services, Bennett Farms, Dogwood Farms, and Andy Braswell.

## TEACHING Academic Quadrathlon

In November of 2011, Chelsea Meyer, Ashleigh Thomas, Rachel Howell and Brett Lee won the MSU Academic Quadrathlon competition organized by Dr. Brian Rude. It consisted of a written exam, quiz bowl, lab practical, and presentation. The team went on to compete at the ASAS Southern Section event in February of 2012.



*Academic Quadrathlon students in action*

## Student Scholarships

At the annual Animal and Dairy Sciences awards banquet **\$16,500 in student scholarships** was awarded. Pictured from left to right: Taylor Poe, Samantha Eder, Cori Webb, Ryan Kennedy, Michael Pruden, Jordan Craig, Kaitlyn Hardin, Rebecca Broome, Colby Hardin, Chelsea Meyer, Rachel Montgomery, Allison Vidak, Molly Nail, Jennifer Merkel, and Emerald Barrett.



## Enrollment Rising



As of the first week of classes for the Fall 2012 semester the Animal and Dairy Sciences department had **282 undergraduate students**. This was up from 232 students in Fall 2011.

## Block and Bridle Club Update

The Block and Bridle Club welcomes students of any major who have a passion for agriculture and livestock. Those who wish to become members must pledge during the fall semester and complete the requirements, such as halter breaking and showing a calf and participating in the annual Pledge Sale. Block and Bridge is expecting around 50 new pledges this fall in addition to their current members. The goals for Block and Bridle this coming year include attending the National Block and Bridle Convention at Iowa State University in April. Last spring, Block and Bridle took home first place in website design and second place in scrapbook design from the National Convention.



## Collegiate Cattlemen's group tours the Midwest

Association members and advisor, Trent Smith, at the Nebraska Cattlemen's Association

Last March, members of the Collegiate Cattlemen's Association at Mississippi State University took a 2,501-mile trip deep into the Midwest. A group of nine students and our club advisor travelled through six states looking at the cattle industry in a different region of our nation with a goal of seeing a side of the industry that, being from the Southeast, we would not have the opportunity to see every day.

Over the course of the week we made stops at several seedstock operations including Sydenstricker Genetics in Mexico, MO, Judd Ranch in Pomona, KS, and Jac's Ranch in Bentonville, AR. Touring these ranches and visiting with their managers allowed us to see how different operations manage efficiency and productivity to generate profit.

Trans-Ova Genetics in Chillicothe, MO was another stop on our trip. As technology continues to change the way we as cattle producers approach everything from feeding to breeding, companies such as Trans-Ova provide reproductive services that allow the culmination and multiplication of superior genetics within our cattle herds. Watching embryo transfer in progress and observing freshly harvested unfertilized embryos under a microscope were just a few of the highlights of our visit to Trans-Ova Genetics.

We also visited the USDA Meat Animal Research Center (MARC) in Clay Center, NE. Made up of 35,000 acres that was once a government ammunitions factory, the MARC conducts research on beef cattle, swine, and sheep. Feed efficiency, reproductive technologies, genetic research, and food safety are just scratching the surface of the research conducted at the MARC. A working feedlot, numerous cow calf herds (including a herd comprised of cattle selected based on genetic tendency to twin) and a bull development unit were highlights of our tour of the MARC.

While in Nebraska we visited feedlots ranging from 3,000 to 30,000 head in total capacity. With the many stocker calves that are shipped from the Southeast to the west to be fed out each year, touring these feedlots gave us a glimpse of the next segment of the industry. Tours of the University of Nebraska at Lincoln's Animal Science Department and the UNL Agricultural Research and Development Center were also taken. While in Lincoln we also visited with the staff of the Nebraska Cattlemen's Association and discussed the work they do as well as how important state cattlemen's associations are to the well-being of the cattle industry as a whole.

—Brandon Leslie, Collegiate Cattlemen's Association member and MSU Senior



Check out the B&B website at [www.msubb.org.msstate.edu](http://www.msubb.org.msstate.edu)







## Jim Newsome—Judging Team Hall of Fame

In February 2012, Jim Newsome was inducted into the Mississippi State University Livestock Judging Team Hall of Fame. Dr. Newsome coached the livestock judging team throughout the 1980's and later served as the Executive Vice President of the Mississippi Cattlemen's Association and Chief Executive Officer of the New York Mercantile Exchange. Dr. Newsome is pictured above with Kipp Brown, area livestock agent and meat goat specialist, receiving a plaque commemorating this prestigious award.



## Alumni Association 2012 Meeting

The MSU Livestock Judging Team and Block and Bridle Alumni Association meets annually during Dixie National. Membership dues can be sent to LeAnne Peters.

**MSU Livestock Judging Team/  
Block and Bridle Alumni Association**  
\$15 annual membership dues  
Contact: LeAnne Peters  
1335 Old Hwy. 12, Starkville, MS 39759  
cbmag@att.net or 601-354-8951

## CLUBS AND ACTIVITIES Beefin' Up the Bulldogs

Mississippi State University defensive lineman Kaleb Eulls of Yazoo City defends his title as returning hay toss champion against fellow football players Sunday afternoon, Aug. 19, 2012, on the MSU campus. The second annual Beefin' up the Bulldogs included a [steak supper](#) and [activities promoting MSU's land-grant heritage](#). Sponsors included First South Farm Credit, Mississippi Cattlemen's Association, Mississippi Beef Council and MSU's Animal and Dairy Sciences Department.



*(Photo by MSU Ag Communications/Kat Lawrence, Written by Linda Breazeale)*

## Dairy Science Club Show String

In October of 2011 the MSU Dairy Science Club took a show string to Jackson, MS for state fair. They took home honors of grand champion Holstein cow, junior grand champion Holstein, and had three overall class winners.

Top Row, L to R: Paige Nicholson, Pat Hughes, and Colby Hardin. Middle Row: Kristen Teague, Melissa Steichen, Kaitlyn Hardin, Ashleigh Thomas, and Haley Kerr.



Check out the [YouTube video](#) highlighting the 2012 event:  
<http://www.youtube.com/watch?v=G4AnDrS6XHw>

## Meet our New Faculty

Several new faculty have joined the department in the last year. These include faculty in teaching, research, and Extension. We look forward to their contributions to all of these important program areas.



Dr. Brandi Karisch  
Beef Cattle Extension



Dr. Caleb Lemley  
Reproductive Physiology



Dr. Shengfa Liao  
Non-ruminant Nutrition



## MSU exhibits prove popular in D.C. at Smithsonian Folklife Festival

Associate Provost, Dr. Peter Ryan, explaining the use of thermography in animal health monitoring

When Mississippi State University enjoyed a presence on the National Mall during the Smithsonian Folklife Festival in Washington, D.C. this summer, the event was the fruition of months of preparation. The venue gave the university valuable exposure in the nation's capital over a nearly two-week period that included Independence Day. It was an opportunity for students, faculty, and staff representing the university to interact with people from around the country and all over the world. "This was a dance we couldn't afford to miss," said Peter Ryan, associate provost.

Held annually since 1967, the festival this year celebrated the 150th anniversary of the Morrill Act, the congressional legislation passed during the Civil War that created land-grant institutions such as MSU. This year's theme, "Campus and Community," also commemorated the 150th anniversary of the U.S. Department of Agriculture, with which MSU has a long working relationship. A total of 18 institutions of higher learning participated this year, each with exhibits to demonstrate their respective contributions to the modern land-grant system.

MSU's thermography exhibit appealed to scores of festival visitors, and "Maggie," a mechanical milking cow, proved to be among the most popular draws for children and adults alike.

One festival delegate from another university remarked to an MSU staffer, "Your cow is very popular." A mother noted that her daughter had insisted on returning to milk "Maggie" at least three times a day. For many, the experience represented one of the first times they had considered the track of food commodities from agricultural settings to the marketplace.

The thermography exhibit illustrated summertime temperatures as people saw their own reflections in bright colors that revealed their personal thermal gradients. People played with hot and cold packs to see how temperatures affected the images as they learned how thermography allows for noninvasive diagnostic methods of disease and injury in animals, among other applications.

Designed to be interactive, each MSU exhibit engaged the public with hands-on activities. "These were wonderful interactive displays," said George Hopper, dean of MSU's colleges of Agriculture and Life Sciences and Forest Resources. "Once you're able to get people involved, they start asking questions, and when they ask questions, then you've really got an opportunity to do some teaching. "Our students are great teachers and great ambassadors for our university and our state," Hopper added.

—Allison Matthews, University Relations





## RESEARCH MAFES Award Winners

The Animal and Dairy Sciences department was well represented at the 2011 Mississippi Agricultural and Forestry Experiment Station awards program.

## Graduate Researchers Accumulate Awards

Sule Dogan (top left), a Ph.D. student in Life Sciences/Genetics was the recipient of several recent research awards. Sule placed 3rd in the computational merit poster presentation at the MidSouth Computational Biology and Bioinformatics Society, was selected as a platform presenter at the 28th European Society of Human Reproduction and Embryology Annual Meeting, was selected as a platform presenter at the 45th Society for the Study of Reproduction Annual Meeting and 18th Ovarian Workshop, was a finalist in Trainee Research Platform Competition; and received the Animal Reproduction in Agriculture Research Fellowship award (supported by Pfizer Animal Research).

A native of Turkey, prior to starting her graduate studies at Mississippi State, Sule completed her BS in Biology from Ankara University, MS in Embryology and another MS in science education, both from Dokuz Eylul University. She also worked as a clinical embryologist from 2007 to 2009. Sule has been a graduate research assistant at Mississippi State University's Department of Animal and Dairy Sciences since 2010. With her mentor Dr. Memili, Sule investigates novel fertility markers in bulls by focusing on dynamics of sperm chromatin and apoptosis influencing early embryonic development. She has also been conducting a

research project on transcriptional changes in the embryos derived from varying fertility bulls by taking advantage of a high throughput technology, RNA-Sequencing and computational biology approaches to identify molecular mechanism(s) of (in)fertility. The knowledge generated is expected to enhance reproductive biotechnologies and improve fertility across mammals.

Kamilah E. Grant, (top right) a Ph.D. student in Life Sciences/Genetics was awarded a travel grant to attend the "Leadership Development and Grant Writing Seminar Program" that was held at the Westfields Marriott Washington Dulles in Chantilly, Virginia, August 24-25, 2012.. The award was provided by The Federation of American Societies for Experimental Biology Minority Access to Research Careers Program in association with Grant Writers' Seminars and Workshops, LLC, and H.G. Adams and Associates, Inc.

A native of Baltimore, Maryland, prior to coming to Mississippi State, Kamilah completed her BS and MS in Animal Sciences at Tuskegee University. With her mentor Dr. Memili, Kamilah conducts original research on molecular and cellular correlates of bull sperm that are associated with male fertility.



Bearden Dairy Research Unit herdsman, [Kenneth Graves](#), received the Research Support Staff Award.



Research faculty member, [Erdogan Memili](#), received the Faculty Research Award.

## Dixie National Sale of Junior Champions Scholarships

A worthy component of the junior sale is the scholarship program that recognizes youth that have developed [perseverance](#) and [life skills](#) in the 4-H Livestock Program. These scholarships will assist Mississippi youth as they continue to pursue their life goals of going to college and equipping themselves with the knowledge and skills needed to be successful in the next stage of their life.

The Dixie National Sale of Junior Champions Committee distributed [\\$51,500 worth of scholarships](#) to 34 exhibitors. The five largest scholarships, \$2,000 each, were awarded to the premier exhibitors in beef, dairy, lambs, hogs and goats. Academic scholarships for \$1,500 each went to 25 high school seniors. Additional \$1,000 scholarships were awarded to four supreme exhibitors in the categories of dairy cattle female, beef female, beef bull, and dairy goat female.



The highlight of the 2012 Dixie National Junior Round-Up was the 43rd Sale of Junior Champions where youth were recognized for their hard work with their livestock projects. The sale brought in new gross sale record of \$299,352.50. Since the beginning of the sale in 1970, buyers have paid more than \$4.8 million for the champion and reserve champion market animals exhibited at the Dixie National.

Lot 42 was donated by Alexandra Pittman, Forrest 4-H, to a friend who has medical hardships. Her 82 pound Reserve Champion Mediumweight Goat sold for a record of \$100/lb., totaling \$8,200.00. With extra money totaling \$14,700.00 added by numerous buyers, the total price for this goat was \$22,900.00 and was the highest priced animal in the sale.

The highlight of the year for youth interested in the 4-H Horse Program was the Mississippi 4-H Horse Championships. Many of these youth had to qualify for this show by placing well at one of 4 district horse shows held across the state. In 2012, 613 youth competed at district shows on 1,051 horses, with a total of 2,841 total entries in these shows. Overall, 66 counties had youth represented at the district shows. At the state horse show, 397 youth (representing 60 counties) competed on 618 horses, with a total of 1,299 entries being shown.

## The 4-H livestock programs develop life skills among youth

### Reserve Champion Mediumweight Goat Exhibited by Alexandra Pittman, Forrest 4-H.

The district and state 4-H shows offered numerous opportunities for junior and senior youth to compete in education contests. Altogether, 265 youth competed in these education contests. In our creative contests, Horse Art, Horse Photography, and County T-shirt Design, there were 262 youth entered and 17 counties that submitted entries.

The Mississippi 4-H Horse Program was well represented by youth at the 2012 Southern Regional 4-H Horse Championships. Our youth won eight classes and Mississippi brought home two high point horse awards in the Western (Kalee McCann from Newton County) and Speed Events (Mallory Williamson from Clay County) Divisions, attesting to the quality of the youth involved in this program.

The success of the 4-H Livestock and Horse Programs depends on many people, from buyers, contributors and donors at the various livestock shows to the families, volunteers and 4-H agents that spend countless hours helping youth with their animals. If you are interested in supporting the Mississippi 4-H Livestock or Horse Programs to help sponsor awards or teams competing in national contests or other livestock-related 4-H activities, please contact Dr. Dean Jousan at 662-325-2424 or [djousan@ads.msstate.edu](mailto:djousan@ads.msstate.edu). Your generosity of greatly appreciated.





## Deep South Stocker Conference

The fourth annual “Deep South Stocker Conference” was held at the Riley Center located in downtown Meridian on August 10, 2012. This conference is a joint effort between the Mississippi State University Extension Service, Alabama Cooperative Extension System, and the University of Georgia Cooperative Extension Service. It is held in each cooperating state on a triennial rotation.

Approximately 100 people participated in the 2012 conference. Participants had the opportunity to attend an educational seminar and tradeshow, as well as a tour of a local order buyer’s processing facility. As participants arrived, they had the opportunity to visit with over 20 trade

show exhibitors, whose products represented many segments of beef industry. These trade show exhibitors and conference partners covered industry segments from animal health to nutrition to seed and weed control.

The educational program was well received, with speakers from several surrounding states presenting. The conference topics covered many segments of the stocker industry from forages and nutrition to health and economics. Participants in the conference included beef producers from Mississippi, Alabama, Georgia, and Florida, as well as county Extension agents, and Animal and Dairy Sciences faculty and staff.

## EXTENSION Feeder Calf Board Sales

Two Mississippi Feeder Calf Board Sales were held in 2012 where beef cattle producers marketed farm-fresh and assembled stocker cattle. The 4th annual “Cattlemen’s Exchange Producer Sale” held on April 3rd in Winona produced 28 truck-load lots while the 5th annual “Homeplace Producers Board Sale” held on August 6th at the Southeast Mississippi Livestock Auction in Hattiesburg generated 26 truck-load lots. These sales were a collaborative effort among producers, livestock marketers, Mississippi State University Extension Service, Mississippi Farm Bureau Federation, Mississippi Beef Cattle Improvement Association, and the Mississippi Cattlemen’s Association. Since 2008, more than **18,600 head of cattle** in 290 loads have been marketed in these board sales. Together, the receipts from these sales have **exceeded \$14 million**. For more information visit: [msucares.com/livestock/beef/feeder\\_calf.html](http://msucares.com/livestock/beef/feeder_calf.html).

## Cattle Learn at Lunch Webinars

The Animal and Dairy Sciences beef cattle extension group collaborated with Auburn University and the Mississippi and Alabama Beef Cattle Improvement Associations to offer a webinar series on beef cattle genetics. Topics included records for genetic improvement, computerized record keeping, genetic selection tools, improving female genetics, bull buying decisions, stocker cattle genetics, industry trends and lessons, and new



genetics tools. This webinar series is now archived online at [msucares.com/livestock/beef/beefsc.html](http://msucares.com/livestock/beef/beefsc.html) for anytime viewing.

New for 2012 is a webinar series on beef cattle economics in collaboration with the Mississippi State University Department of Agricultural Economics and Louisiana State University Ag Center. It can be accessed by going to the website listed above.



When asked what her favorite experience from her internship was Cori replied, "I got to artificially inseminate one of our mares. That was very exciting".

## Student Spotlight—Cori Webb

This past summer Cori Webb, a senior in Animal and Dairy Sciences, interned with Peterson & Smith Equine Reproduction Center in Summerfield, Florida. Peterson & Smith is the home of one of the largest recipient mare herds in the southeast United States, totaling nearly 400 mares. Cori was overwhelmed by the day-to-day tasks that must be accomplished at such a large operation and surprised at the number of hands-on experiences in which she was able to take part. "Along with the long list of daily chores you get countless opportunities to gain hands-on experience with palpation, stallion collection, and artificial insemination, just to name a few. In the end, all the hard work is completely worth it," Corey said.

A typical day would start at 6:00 a.m. when the interns would turn out the client mares and foals to their pastures. Then there were chores to be completed like mucking barn stalls, stocking the exam room and stallion lab, and feeding and watering recipient mares. Some days Cori was in charge of bringing the recipient mare herd through the chutes at the palpation shed so they could be examined for ovulation. In the afternoon, she was busy working with clients who had brought in their mares or stallions. She often assisted with embryo flushes and transfers and administered hormone shots and medications. Her evenings consisted of returning the client mares to their stalls and cleaning and organizing the exam room and stallion lab for the next day. Her day didn't end there, as she was on-call two nights per week where she was responsible for assisting with after-hour medications and ovulation checks.



**MISSISSIPPI STATE**  
UNIVERSITY™

## Animal and Dairy Sciences

4025 Wise Center Road  
Box 9815  
Mississippi State, MS 39762  
662.325.2802

[www.ads.msstate.edu](http://www.ads.msstate.edu)



## ALUMNI FLASHBACK

### 1960 MSU Livestock Judging Team

Left to right 1st row: Kenneth Middleton, John Harvey, William Woods, Coach Williams

Back row: Tommy Winters, Billie Baner, Bob Knight