A Message from the Department Head,

I am honored to be serving my thirteenth year as Head of the Department of Animal and Dairy Sciences (ADS) at Mississippi State University (MSU). It seems just a short period of time since I arrived on April 1, 1997. The face of MSU and ADS has changed dramatically. Dr. Donald Zacharias was President of MSU and since that time there have been two interim and four presidents of this great university. The ADS department has hired 17 of its 18 current faculty during that same time. Undergraduate enrollment is at an all time high with a projected 250 undergraduate students during this academic year.

Despite the ups and downs with the Mississippi economy, we have always provided students with a quality education and our stakeholders with valued research and educational programs. We have one of the strongest 4-H Livestock Programs in the Southeast. A highlight for the department was the grand opening of the Mississippi Horse Park in 1999. We are also very proud of our livestock at our units. This year our Jersey herd is ranked 8th nationally for milk production and our beef cattle have topped several sales, including the Beef Cattle Improvement Association bull sale and breed association sales.

One of our primary missions at Mississippi State University is teaching of undergraduate students and the department has always been dedicated to providing students with the best possible education. Our students have represented the department well in regional and national competition at the Southern Quadrathlon Competition, Regional and National Dairy Challenges, National Meat Quiz Bowls and the Morgan Horse Grand Nationals. Our students continue to be very competitive and successful in getting into the College of Veterinary Medicine.

Many good things have happened during the last 13 years, and with the enthusiasm and dedication of our faculty and staff, I believe the best is yet to come. All of this has been made possible because of the support of our alumni and citizens in Mississippi.

So as I close out this letter, I congratulate our former students and our alumni for the successes that you have had with your careers. I hope that the Department of Animal and Dairy Sciences had a small part in the joy and happiness you are now enjoying with your jobs and families. As always, we look forward to visiting with you or hosting you when you come to the department.

Warmest Regards,

[Signature]
Professor and Head
Highlights of the 4-H Livestock Program

Western National 4-H Roundup
In January 2010, a group of 4-H’ers traveled to the Western National 4-H Roundup in Denver, Colorado, to compete in various contests. Many of these contestants received individual and team awards for their performance, and the combination of all the individuals and teams that competed in horse contests placed third overall in the Horse Classic. 4-H’ers from Hinds County won the horse judging contest and had three youth in the overall top 10 individuals in the contest. Youth from Pontotoc County won second in Hippology and had the high point overall individual. Congratulations to both teams and to all of the youth who represented Mississippi 4-H so well in these national contests.

Dixie National Junior Round-Up
The highlight of the 2010 Dixie National Junior Round-Up was the 41st Sale of Junior Champions where youth were recognized for their hard work with their livestock projects. There were 42 animals sold for $275,201.30. Since the beginning of the sale in 1970, buyers have paid more than $4.25 million for the champion and reserve champion market animals exhibited at the Dixie National Junior Round-Up.

Another 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 $40,500 worth of scholarships to 33 exhibitors. The five largest scholarships, $1,500 each, were awarded to the premier exhibitors in beef, dairy, lambs, hogs and goats. Academic scholarships for $1,200 each went to 25 high school seniors. Additional $1,000 scholarships were awarded to three exhibitors of the supreme dairy female, supreme beef female, and supreme beef bull.

4-H Club Congress
Approximately 200 youth competed in livestock-related contests in late May during 4-H Club Congress. A wide variety of contests were held, including Dairy Poster Contests, Visual Presentation Contests, Meats Judging, Dairy Products Judging, Livestock Bowl and Dairy Bowl. The winning 4-H Meats Judging Team will represent Mississippi in the Western National 4-H Roundup in January 2011. In addition, the winning Dairy Bowl team will compete at the Eastern National 4-H Roundup in Louisville, Kentucky, in November 2010. Each year, we have a deep field of competitors in our livestock education contests.

4-H Horse Shows
Our four District 4-H Horse Shows and State 4-H Horse Championships are right around the corner. Each year, we have four competitive district shows to qualify horses for our state show. Last year, we had our largest horse show in the past 10 years. Mississippi was well represented at the regional show by our youth and their horses, as our youth won many class and all-around awards. We expect the same this year.

The State 4-H Horse Championships will be held in Jackson from July 7th through 11th at the Kirk Fordice Equine Center. Our show will start with several education contests, including Individual and Team Demonstrations, Public Speaking, Horse Judging, Horse Bowl, Hippology, Horse Art, Horse Photography, and T-shirt Design Contests. Our classes start on Thursday, July 8th and will conclude on Sunday, July 11th. From this show, we will qualify 50 horses to represent Mississippi at the 2010 Southern Regional 4-H Horse Championships in Clemson, South Carolina.
Diverse groups of researchers in the Laboratory of Animal Functional Genomics at the Department conduct research to increase reproductive efficiency of animals, primarily cattle (http://memili.research.msstate.edu).

Using multidisciplinary approaches, the members of the laboratory and collaborators both from academics and industry have produced new knowledge in bovine gamete and embryo development with direct applications in animal biotechnology.

The Laboratory provides research opportunities for undergraduate and graduate students, thus far graduating 4 graduate students and 14 undergraduate students. Currently, there are three graduate students and two undergraduate students in the lab.

Recently, Dr. Memili and colleagues (Drs. Susan Bridges of Computer Science and Engineering, Mark Lawrence and Attila Karsi of CVM Basic Sciences, and Cetin Yuceer of Forestry) were awarded a research and educational grant from the National Science Foundation to empower historically underrepresented minorities in functional genomics. This is a collaboration between Mississippi State University, Alcorn State University, Jackson State University and Tougaloo College (www.urm.msstate.edu).

Dr. Memili also serves as a faculty mentor for an NSF funded Research Experience for Undergraduates (REU) Program (PI: Dr. Andy Perkins and Co-PI: Dr. Susan Bridges; Department of Computer Science and Engineering) “Undergraduate Research in Computational Biology” (http://www.cse.msstate.edu/~compbio/).

Undergraduate researchers Marlaina Berch (left) and Jasmine Thomas (right) are studying functional genomics of bull fertility with guidance from doctoral student Sule Dogan (center).
Faculty, Staff & Student Achievements

**Dr. Mike Martin** received the 2010 Rosalind and Rodney Foil Teamwork Award in the College of Agriculture and Life Sciences, along with three of his colleagues (Drs. Wes Schilling, Anna Hood, and Jason Behrends) from Food Science, Nutrition, and Health Promotion.

**Ms. Elwanda Shook** received the 2010 Doris and Louis Wise Support Staff Award in the Secretarial/Clerical area for her exceptional service. Pictured at right.

During the annual Graduate Student Association banquet, our ADS graduate students were well represented. **Shollie Falkenberg** was nominated for Outstanding PhD Research Assistant, **Joe Binversie** for Outstanding Master's Research Assistant, and **Amanda Frahm** for Outstanding Service.

**Our 2009 ADS Reunion was a Success!**
Year of “Firsts” for MSU Equine Students

Mississippi State University (MSU) equine students had a very productive school year outside of the classroom as they proudly represented MSU finding new paths to pave for future equine students. MSU horse judging team coached by Dr. Molly Nicodemus, Associate Professor of Animal & Dairy Sciences (ADS), traveled to Morgan Horse Grand Nationals in Oklahoma City, Oklahoma. This was the first time MSU was represented by 3 teams at any national horse judging contest with all 3 teams winning Top Ten Honors in the Overall team division ranking 3rd, 6th, and 7th. In both the In-Hand and Performance divisions, two of the MSU teams were awarded Top Ten Honors including one team being named Grand Champion in the In-Hand team division and team member Lacy Priest being named Reserve Grand Champion in the In-Hand individual division. In the Oral Reasons division all 3 teams were awarded Top Ten Honors including one team being named Grand Champion and team member Richard Baessler being named individual Grand Champion. All 3 teams had members take home Top Ten Honors in the individual Overall, In-Hand, Performance, and Oral Reasons divisions totaling 11 individual awards given to MSU team members.

In November, the MSU equine students volunteered for the first time to work with the Mississippi Boy Scouts as the boys worked towards their Horsemanship badge at the Boy Scout Camporee at the Mississippi Horse Park. The ADS Equine Program volunteered their horses for the equine students to educate and demonstrate to the Boy Scouts basic horsemanship and horse management techniques. Under the guidance of Dr. Nicodemus and graduate teaching assistant John Williams, the MSU equine students spent 2 days giving the Boy Scouts hands-on experience with the MSU horses and evaluating the boy’s ability to handle and ride horses.

Spring semester found the equine students just as involved in the horse community as they were in the fall as they actively organized and prepared to host the MSU-ADS Bulldog Classic Quarter Horse Show at the Mississippi Horse Park. Equine students were responsible for all aspects of the March horse show. To prepare for hosting the Bulldog Classic, students volunteered at the Dixie Nationals Quarter Horse Show in Jackson, Mississippi working alongside representatives from the Mississippi Quarter Horse Association. Students used the opportunity to promote the Bulldog Classic and to recruit business sponsors for the show. New to the Bulldog Classic, equine students and horses from the equine program participated in the March show entering in the lead line class. Equine students were responsible for recruiting local youth to ride the MSU horses during the class, preparing the MSU horses and the youth for the show, coordinating the show clothing and tack, and handling the horses during the class. MSU horses used during the show were donated by Fred and Renee Chandler.

While the MSU equestrian team coached by Dr. Nicodemus and John Williams has qualified in past show seasons numerous huntseat and stockseat riders to both Regional and Zones competitions, this was the first year MSU was represented in the Alumni division at both competitions. As undergraduate students, both Katelyn Brumfield and Kristen Walters had proudly represented MSU on the huntseat team qualifying multiple times for both Regional and Zones competitions. After completing their eligibility as undergraduate riders, both team members came back to represent MSU for the first time as Alumni riders. Their first year success in the show arena as Alumnus qualified them both for Regional and Zones competition with Katelyn Brumfield winning her Alumni huntseat rail class at Zone 5 Championships, and thus, making her eligible for Intercollegiate Horse Show Association Nationals. As the first ever MSU rider to qualify for Nationals,
Katelyn proudly represented MSU, placing 10\textsuperscript{th} overall in the nation.

Pictured at right: MSU Horse Judging Team at Morgan Horse Grand Nationals in Oklahoma City, Oklahoma in October 2009

Block and Bridle Club

The MSU Block and Bridle Club had another fun and exciting 2009-2010 year. Under the leadership of President Lee Hill, the year started off with a fish fry, welcoming back old members and getting to know potential pledges. The club quickly became very busy halter breaking calves for the Little International Show. The Little “I” Show was a tremendous success with a huge turnout at the MS Horse Park. After the show, it was immediately time to start working on Halloween on the Farm. Despite the rainy weather, the club raised nearly $850.00 in just two days during what is normally a three-day event. In the spring of the year, thirty-two pledges were initiated into the club. In February, members also assisted in holding cattle, running cards, and being group leaders at the Dixie National Livestock Judging Contest. Towards the conclusion of the school year, the club held a bake sale and raised $250 which was all donated to those people in the apartment complexes affected by the two recent Starkville fires. Lastly, we celebrated the year’s success with a crawfish boil. Plans are already in the works for another eventful 2010-2011 year. Here are our new officers: President J.B. Farrell (Collierville, TN), Vice President Joseph Hodges (Hattiesburg, MS), Secretary Ashleigh Thomas (Madison, MS), Treasurer Kirsten Futch (Cross Roads, AL), Pledge Marshalls Lanna Durst (Rolling Fork, MS) and L.C. Parker (Laurel, MS), and Scrapbook Editor Cori Webb (Rossville, TN).
Ag Olympics

This past year the Department of Animal and Dairy Sciences established a new event for students, the 1st Annual Ag Olympics. Taking place on the lawn of the Wise Center during the evening of October 13, four person teams competed in various lawn games to be named Champions along with receiving Mugshot gift certificates. Ten teams competed and numerous spectators came out to support their favorites and have a good laugh during the event. Various Animal and Dairy Science clubs operated the games which included tug-of-war, obstacle course, human wheelbarrow race, egg on a spoon race and other speed events. The ADS faculty even put together a team which sadly did not fair too well against the “younger generation”. For the 2nd Annual Ag Olympics the planning committee is looking forward to having more teams participate in the event. Our 2009 Champions are Nick Simmons, Jason Scott, Rob Watson, and Joseph Adcock.

Academic Quadrathlon

In 1999, Dr. Kiser made the decision to support the Southern Section of the American Society of Animal Science by sending an undergraduate team to the Academic Quadrathlon competition every year. This animal science (including dairy and poultry) based competition is comprised of four events: 1) Lab Practical; 2) Written Exam; 3) Oral Presentation; and 4) Quiz Bowl. Each University can send a team to represent their University to the respective regional competition. That chosen team represents the University and has to have won a local, on campus competition. Faculty are not allowed to be involved in selecting team members of any team. Finally, in 2001 the first team to represent Mississippi State University went to College Station and Fort Worth, Texas for the competition. It was in 2004 that the team representing Mississippi State University placed third overall. All students who have participated locally and regionally have a very entertaining time, but do so while experiencing an educational event. Since 2004, Mississippi State’s Academic Quadrathlon teams have been very competitive. The 2010 team placed third overall and was comprised of Garrett Steede, Becky Telle, Steven Davison, and Samantha Lesniewski.
Undergraduate Departmental Scholarships

Bryan & Nona Baker
Endowed Scholarship:
Jenny Bibb

Billy Gene Diggs Memorial Scholarship:
Morgan Robertson

Henry H. Leveck Memorial Scholarship Fund:
Samantha Lesniewski
Charles Huckaby
Angel Henderson

Janice McCool Durff & Alma McCool Liles Endowment
& Scholarship Fund:
Taylor King
Molly Rafaely
Lacey Priest
J.B. Farrell
Patrick First
Lori Ward

Reverend & Mrs. William Page Brown Memorial Scholarship:
Courtney Brown

Fuquay Endowed Scholarship in Animal and Dairy Sciences:
Kayla Williams

Rodney Moore Scholarship:
Matt Woolfolk

Enoch Norton Endowed Scholarship:
Jordan Craig
Tippy Adams

Bedenbaugh Scholarship:
Emerald Barrett

Glenn McCullough Scholarship:
Colby Powell

O.W. Scott Scholarship:
Ashleigh Thomas

Dr. Bob Rogers Endowed Scholarship:
Matt Woolfolk
Charles Huckaby

Miles Carpenter-Bill McGee Endowed Scholarship:
Courtney Law

Cattlemen’s Exchange Feeder Calf Board Sale Results

The second annual “Cattlemen’s Exchange Producer Sale” was held on April 6, 2010 in Winona, MS. Beef cattle producers from across the state marketed farm-fresh and assembled stocker cattle in 18 truck-load lots. More than 1,200 head of cattle were sold in less than an hour. In the 2009 sale more than 2,000 head were marketed, also in less than one hour. Together, the receipts from these sales exceeded $2 million and averaged well above market value for the week of the sale. More importantly, the price premiums for recent MS board sales were even larger when compared to the MS average market when the cattle were loaded out.

In this type of auction the cattle are not present at the sale facility. Short video clips of the cattle are posted on the Internet at msucares.com/livestock/beef/feedercalf.html, along with detailed descriptions of cattle type, weight, and management for prospective buyers to view prior to the sale. The same videos are presented during the auction.

The third annual “Mississippi Homeplace Producers’ Sale” will be held on August 2, 2010 in Hattiesburg, MS. These board sales have been successful in bringing together cattle producers and livestock marketers to improve the profitability of both sectors of the beef production chain. This is a cooperative effort among the Mississippi State University Extension Service, Mississippi Beef Cattle Improvement Association, Mississippi Farm Bureau Federation, and the Mississippi Cattlemen’s Association.