



Department Outlook

Animal Science Extension—Our Connection to Tennessee’s Producers, Youth, and The Animal Industries



Dr. Alan G. Mathew, Professor and Head

As I have indicated in earlier articles, Land grant Universities, such as UT, are based on three intertwined and equally important missions: Education of students, Research that

provides direct as well as long term benefits to society, and Extension, often described as “outreach”, through which research information and knowledge are transferred to our stakeholders.

UT Extension plays many roles and provides many benefits to the citizens of Tennessee, and as nearly 1/3 of our Department’s faculty have primary responsibilities in Extension, I thought I might use this issue to describe how our Extension activities are managed, and highlight the Department’s outreach efforts.

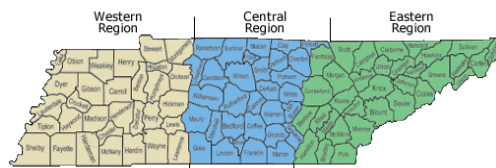
Most of the students in our classrooms have little knowledge of the wide array of activities or the wealth of information and assistance that is provided through our Extension efforts each year. However, for many others across the State, including producers, the animal industries, and our 4-H youth, we are primarily known through our Extension efforts.

The UT Extension website (<http://www.utextension.utk.edu/aboutdefault.htm>) provides the following description and mission statement for our outreach activities: *“University of Tennessee Extension is the off-campus educational unit of The University of Tennessee Institute of Agriculture. With an office in every county, Extension brings educational programs and research-based information to the citizens of Tennessee. Extension works with local governments, community leaders, families, and individuals to address problems and issues that help improve people’s lives. Extension is engaged in a broad range of educational programs in agriculture, community resource development, nutrition, health, family issues, lawn and garden, and youth development.”* *“The stated mission of the system is to help people improve their lives through an educational process that uses scientific knowledge to address issues and needs.”*

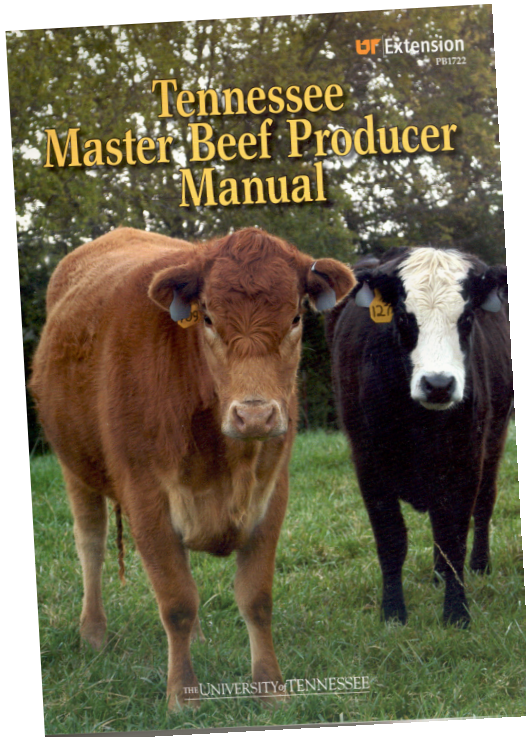
To carry out the above within the disciplines of Animal Science, ten of our faculty members have partial or full appointments within UT Extension. These faculty members hold the title of “Specialist” indicating their advanced knowledge in specific areas of livestock production and management. As would be expected, our Specialists have extensive backgrounds and high expertise in areas of Beef, Dairy, Horse, Sheep, Swine, Poultry and other livestock production and management. However, as Extension must serve thousands of producers, tens of thousands of 4-H youth, and unknown numbers of others in the animal industries, it would be impossible for those ten Specialists to personally interact with all of our constituents or address all questions and issues related to their areas of expertise. Instead, UT Extension provides service to those many stakeholders through the efforts of a network of Agents, officed in each of the State’s 95 counties.

County Extension Agents have broad knowledge across many disciplines of agriculture, horticulture, family and consumer sciences, and other areas, and they are thus able to address a variety of issues that face the constituents of their counties. Given the broad range of issues that Agents must address, as well as the large number of stakeholders they directly serve, they have an enormous task, and they play a very critical role in the delivery of science-based information to benefit the livelihood and endeavors of producers, homeowners, families, and others in their counties.

While Agents interact directly with those stakeholders, it is the responsibility of our Specialist to develop and deliver the science-based information to those Agents, through multi-county, regional, and state-wide educational programs. Accordingly, the success of our Specialists is in a large way measured by the number and quality of the educational programs they develop and provide to the network of Agents.



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The Master Beef Producer's (MBP) program provides an excellent example of this process. The MBP program was conceived several years ago by our Beef Specialists who then spent more than one year developing educational materials, including a comprehensive manual and variety of ready-to-deliver presentations on topics including genetics, reproduction, nutrition health programs, marketing, and food safety relevant to beef production. The program was then transferred to Extension Agents through a series of "Train the Trainer" workshops, that enabled agents to deliver the information directly to producers enrolled in the MBP certification program. Since its inception more than 4 years ago, more than 2000 beef producers have undertaken the Master Beef Producer's program, and those participants have indicated the information provided through the MBP program improved their net income by \$2,000 to \$10,000 annually. Thus, the total statewide impact of this program can be measured in millions of dollars annually for our Tennessee beef producers. Similar "Master Producer" programs have been initiated for horse enthusiasts and meat goat producers, as they also make up a significant component of our animal industries.

Other recent educational programs developed and/or delivered by our Department's Extension Specialists include the TN Nutrition Conference, Horse Welfare Guidelines, Feeding is Fundamental, Livestock Waste Management and Conservation, The Tennessee Quality Milk Initiative, Beef Quality Assurance, Pork Quality Assurance, Horse Ownership courses, and a number of others. Besides formulating and providing leadership to such programs, our Extension Specialists also manage other ongoing activities that have long served our producers, such as the TN Dairy Herd Improvement Association and the TN Bull Test Station. In addition, each year our Specialists author hundreds of bulletins, fact sheets, videos, web-based documents, and other sources of information relevant to livestock producers and the animal industries. And they provide numerous presentations, often in conjunction with our research and teaching faculty, at field days, workshops and commodity group meetings.

And finally, many of our Specialist also provide leadership to our strong Statewide 4-H youth programs in the various livestock commodities. You may recall that I highlighted our 4-H activities in the previous issue of this newsletter, but it bears repeating that more than 44,000 Tennessee youth take part in livestock projects each year, and in doing so, they rely heavily on and have benefited greatly from the efforts of our Specialists, who developed, initiated, and maintained those programs and activities over the years. It also bears repeating that our 4-H activities have a very positive and significant impact on the development of our youth, and as such, this is one of the greatest responsibilities of our Extension faculty. And of course, they could not succeed without the assistance and hard work of our network of Agents, volunteers, and county and regional Extension Directors.

Beyond all of the above, our Specialists somehow find time to answer many phone calls, piles of emails and other requests for information daily, and they spend many hours per month on the road, traveling across the State to various educational pro-

gram venues and activities. In all they are a very active and productive group. I must say that a career as an Extension Specialist is definitely not for someone who desires an 8:00 - 5:00, 5-day workweek, as much of our Specialists' work spans early mornings, evenings and weekends, much like the producers they serve.

I hope the above has provided a greater insight into what Extension is all about and the contribution our Extension Specialists provide in fulfilling the Landgrant mission, for the betterment of all those we serve. I am proud of our Extension faculty and our outreach activities, and I hope you share in that pride as alumni, friends, and supporters of the UT Department of Animal Science. To learn more about the Department's Extension programs and activities, please visit the following website: <http://animalscience.ag.utk.edu/extension.htm>

As always, please feel free to communicate with me should you have questions or wish to gain any additional information regarding our Department.

Sincerely,
Alan Mathew
Professor and Head
Department of
Animal Science



Faculty Spotlight: Dr. Warren Gill

Submitted by Dr. Warren Gill, Extension Beef Specialist

My education started on a farm in Lincoln County over fifty years ago when my father first showed me how to milk a cow. I never became a very successful milker, but I did learn a lot about hard work, setting goals and sticking with a job until it is finished.

My father also taught me how to ride by putting me on a somewhat difficult Shetland pony and not letting me get off until the pony and I had both learned to work together. I never became a great trainer, but I did learn teamwork.

I started at the University of Tennessee in the pre-Vet curriculum in 1969, but my career was set during finals week of my Junior year when I did something I still cannot believe - I missed a final. The course was Animal Nutrition and the Professor was Dr. Karl Barth. When I realized I'd arrived 2 hours late for the test, I ran up the stairs and confessed to getting the time wrong and his response was, "That is not a problem, Warren. I will simply give you the exam orally." At first I was elated that I could finish the course. Then, within seconds, it occurred to me what "oral" referred to and I became petrified. After overcoming my fear of having to express myself verbally, I passed the exam and went on to do a special problem for Dr. Barth. Then, he got me a job as a student worker in charge of maintenance of the rat lab and cleaning the Brehm Arena and holding area. During this time, I came to admire Dr. Barth and his work and jumped at the chance to work on a Master's degree in Animal Nutrition with Karl as my Major Professor.

According to my teaching philosophy, *educators are the product of their education*. The teachers who most influenced me - my favorite teachers - were the ones who forced me to think even as they raised my confidence in my ability to do so. My success as an educator is linked to a devotion to this concept. Karl Barth was the first Professor who exerted this influence upon me, but he was hardly the last. Dr. George Mitchell and Dr. Jim Boling had similar influences upon me while I completed Ph.D. work in Kentucky.

When I started Extension work in Kentucky, Dr. John Johns greatly influenced my thinking about taking complex nutrition research and transforming it into practical advice for producers. However, it was Dr. Absher who first instilled the concept of Extension programming that changes lives.

When I moved to Tennessee twenty-two years ago to become an Assistant Professor with the University of Tennessee Extension, Dr. Jim Neel was the mentor (also my boss at the time) who taught me how plan and implement programming that truly took ideas and turned them into real, measurable change.

The first program I was involved with was the CATCH-FOUR cattle handling facilities improvement program, led by Dr. Clyde Lane (another important mentor, along with Dr. David Kirkpatrick). CATCH-FOUR stood for "Consider Advantages That Cattle Handling Facilities Offer 'ur' Returns." This program resulted in 1800 new handling facilities being constructed, 2300 being remodeled and 3650 new headgates were purchased by beef producers.

Working with CATCH-FOUR convinced me that this Extension concept can really work!

I believe one of my most important strengths is the ability to work with people to achieve educational goals. I think this is also a good way to introduce my teaching philosophy.

My primary job is to educate Extension agents. I do this in a number of ways, but the most effective method is by carefully designing research-based curriculum, delivering that curriculum in a robust manner and supporting agents as they deliver the programming to their clientele.

Currently, the best example of this technique is the Master Beef Program, in which we teach Extension agents the information needed to conduct a twelve week program. The program provides structure such as curriculum, a text book, enrollment forms, tests, etc., as well as web-based support for obtaining Powerpoint presentations and other support

m a t e r i a l s . Through classes such as these, we teach even as we raise the confidence of our agents to become better teachers.



Warren Gill

I spend about forty percent of my time on youth work. One of the most difficult, yet satisfying, career accomplishments has been a leadership role in developing the Tennessee 4-H Junior EXPO Premier Exhibitor Program. This program was carefully defined as a positive step because it shifted the focus from "showing livestock" to "exhibiting the skills and talents of the youth." Approximately \$15,000 per year in sponsored awards and scholarships are presented. Following the successful unveiling of the Premier Exhibitor Program at Sheep EXPO, the program was implemented at Beef EXPO and Knoxville Spring EXPO. This program has resulted in more enthusiasm from youth, parents, leaders and agents. Additional changes due to "shifting the focus to the youth people" were the addition of a program for drug-testing selected market lambs and working with the Tennessee Sheep Producer's Association to develop a plan for ensuring fairer returns to young exhibitors.

In recent years, the primary focus of my adult work has been mineral nutrition, but other key aspects include pre- and post-weaning nutrition and utilization of various feed ingredients to enhance production efficiency. During the past year, I have been involved in three research studies being conducted at UT Research and Education Centers. Two of these are industry-sponsored product development and testing studies and the other is a two-year study that is likely to change recommendations related to utilization of soybean hulls. I am also Primary Tennessee Investigator (along with Dr. Clyde Lane) on a multistate \$143,000 USDA-APHIS study related to incorporating electronic identification (EID) in practical marketing situations.

The mineral work has probably been



Warren Gill involved with hands on lab for UT vet students.

“I believe in people, I look for good results and I will do what it takes to obtain progress toward desirable goals.”

widest impact. The program started when numerous producers told us their cattle didn’t “look right,” which meant they exhibited rough, off-color hair coats and were having significant production issues, such as cattle health and reproductive problems. We (myself, Dr. Clyde Lane, Aaron Fisher, and Debbie Joines led in this work) developed the hypothesis that the health issues were due to copper/selenium deficiencies caused by excess environmental sulfur, and we obtained funding to address the problem through an IFAFS grant. We then organized agents and collaborators to obtain pasture forage and blood and liver samples to test the hypothesis. After we obtained sufficient evidence that the problem was indeed widespread copper and selenium deficiency due to excess sulfur (and sometimes iron), we worked with numerous mineral supplement manufacturers to build formulations that would correct the problems.

In the next phase of the mineral survey program we mounted an intensive educational program, first by educating the Extension agents about the problem and the solutions, then providing them with the support for educating their clientele. As usual, we started with a website, but utilized other methods such as county meetings, field days (I’ve participated in more than a hundred) and agricultural press. We have measured the impact of this program in various ways, but literally hundreds of producers have told me that their cattle look and produce better.

I am currently a member of the UT Department of Animal Science’s Information Technology (IT) Committee (under the leadership of Ms. Emily Tipton). My involvement has reaffirmed my belief in the absolute necessity of staying on the cutting edge of technology.

Another important part of my management style is consensus building. In the last five years I have been involved with three teams that have won the Gamma Sigma Delta Team Awards (\$5,000 for each award). The first to win was the Premier Exhibitor Team (for shifting the focus of livestock shows away from animals and toward youth education). The next to win was the Forage Mineral Survey Team (for the aforementioned

program that recognized and solved widespread mineral imbalances). Most recent was the Master Beef Producer Program. My role in each of these programs could be described as consensus builder. I take pride in being able to bring numerous and diverse people together to understand and achieve worthwhile goals.

I have been blessed with the energy it takes to successfully implement ambitious programming. One place where my energy helps is in my classroom work. Each semester I assist in lecture and labs with small ruminant instruction for both the College of Veterinary Medicine and the Department of Animal Science.

My management style is rooted in my iron-clad positive outlook. I believe in people, I look for good results and I will do what it takes to obtain progress toward desirable goals. This does not mean I cannot make tough decisions—I can and will. This does not mean that I won’t say what needs to be said—honesty and a forthright approach to problem solving are an essential part of my management style.

In closing, I must emphasize that my teaching and management style depends upon teamwork. I’ve mentioned several names in this article, but many more have influenced my life and work. Dr. Alan Mathew is my current Department Head, and a thoughtful mentor. I mentioned my father, William Gill, who is a great teacher in my life, but no more so than my mother, Carolyn. My wife, Melissa, is my best friend, and my children, William and Greer, have been greater teachers than they will ever know.



Warren Gill discussing minerals to producers at a field day.

Dr. Frederick Harper Retires, and Receives National Honor of the Equine Fellows Award

Submitted by Dr. Alan Mathew, Professor and Head



Frederick Harper discusses Body Condition Score at an Appalachian area horse field day.

Dr. Frederick Harper, recently retired Horse Extension Specialist, was honored by the Equine Science Society with the bestowing of the 2007 Equine Fellows Award, in recognition of distinguished service to the horse industry. The Equine Science Society is a premier organization that promotes quality research on equine nutrition and physiology and strives to establish effective communication among researchers, teachers, extension, and organizes and conducts symposia and cooperates with other organizations having similar or related interests in the equine industries.

Dr. Harper retired December 31, 2006, following 28 years of service as a UT Extension Horse Specialist. Among his many accomplishments, he initiated and authored for the past 25 years the "Tennessee Horse Express", a widely recognized newsletter for horse enthusiasts. His educational programs, which included the Horse Roundtables, Horse Ownership, and Horse Management Courses, were very well received by horse owners and enthusiasts from many parts of Tennessee and beyond.

Dr. Harper was considered to be one of the first true Extension Horse Specialists. Having originated Extension educational horse programs for Rutgers University in the early 1970s, he brought his expertise to Tennessee in 1978, when he joined UT. Dr. Harper is nationally recognized for initiating numerous educational programs which have greatly benefited a large segment of the equine industry.

He has published more than 1600 articles in a variety of venues, including national and international scientific journals and popular press publications, and he provided much-needed information to many thousands of horse owners, breeders, and trainers. Dr. Harper is author of the popular publication "Top Form Book of Horse Care," which has more than 450,000 copies in print and he was also research editor for "Feeding to Win II," a popular book on horse nutrition. He also authored a number fact sheets for the "Horse Industry Handbook."



Frederick Harper & Catherine Cain, UTAS Alumni & Cobra Farm Broodmare Manager in Lexington, KY.

Dr. Harper has always been more than an educator when it came to horses, having been a horse breeder, horse judge and, of course, a longtime horse enthusiast himself. UT Extension and the Department of Animal Science will miss Dr. Harper. I hope you will join me in wishing him the very best as he takes on new pursuits.



Frederick Harper receiving his 2007 Equine Fellows Award from ESS.

University of Tennessee Equestrian Team Ends 2006-2007 Season Strong!!!!

Submitted by Trinetta Ross, Instructor



The 2006-2007 University of Tennessee Equestrian Team has ended their show season with several riders receiving top honors within Region 1, Zone 5 of the Intercollegiate Horse Show Association (IHSA). With new members joining, there arrived new talent, resulting in strong exhibitions by both the Hunt Seat and Western teams. The Western and Hunt Seat teams finished 4th and 6th respectively within the region.

Regional honors were given as well with numerous awards being taken home by the University of Tennessee. Perhaps the greatest highlight was that UT's Western Coach, **Karen Loyer**, was selected as **Coach of the Year** for Region 1, Zone 5!!! This is an honorable recognition as Ms. Loyer, who was selected by her coaching peers from both Hunt Seat and Western teams representing the nine other colleges and universities within the region. Congratulations Karen!! The **University of Tennessee Equestrian Team** was also recognized as the **Most Improved Team** of Region 1, Zone 5.

Additional regional awards included the following:

Senior of the Year	Beth Blankenship- Senior in Accounting
Sportmanship Award	Lauren Ness- Junior in Business/Marketing
Rookie of the Year	Allison Erkman-Freshman in Animal Science
Student Captain	Sarah Decker- Sophomore in Animal Science

Top Ten Riders of Region 1, Zone 5:

6 th rank	Keri Blair- Freshman in Communications
9 th rank	Allison Erkman-Freshman in Animal Science



Additional information about UTET can be found at their website <http://web.utk.edu/~equeteam/>.

Former University of Tennessee Equestrian Team Member Selected for Spring 2007 KEMI Class!!

Submitted by Trinetta Ross, Instructor

Lane Johnson, a 2006 University of Tennessee graduate with degrees in Agricultural Economics and Business was selected as one of 26 interns for the Spring 2007 Kentucky Equine Management Internship (KEMI). Ms. Johnson, originally from Los Angeles, California, grew up riding and showing hunter jumpers. During her time at the University of Tennessee, she was a competitive rider on the Hunt Seat team, earning multiple awards throughout her career.

Started in 2000, KEMI (www.kemi.org) works to strengthen the workforce of the Thoroughbred industry by providing a high quality internship program. Interns spend 22 weeks at their respective farms gaining valuable hands on experience ranging from broodmare and stallion management to yearling prep. In addition to the daily farm work, students meet weekly for educational lectures and seminars. Attendance at the monthly meetings of the Kentucky Thoroughbred Farm Managers Club allows interns to discover careers available in the industry, as well as provides networking with potential employers.

Through the KEMI program, Ms. Johnson is currently interning at WinStar Farm, a 1450-acre farm located in Versailles, Kentucky. WinStar Farm is known for breeding, raising and training of exceptional Thoroughbred racehorses. (<http://winstarfarm.com/>)

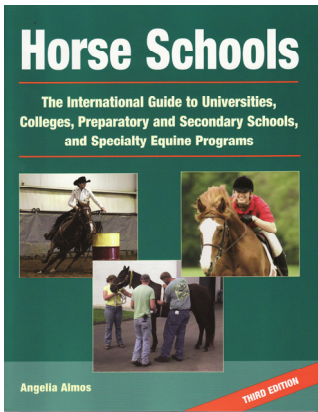
Though a very strong and competitive program, KEMI is not the only internship program available to students with an interest in the horse industry. For additional information and opportunities please contact Ms. Trinetta Ross, The University of Tennessee, Department of Animal Science at 865-974-6390 or email her at tross7@utk.edu.



Lane Johnson

UT Animal Science Students Grace Cover of New Horse Book!

Submitted by Trinette Ross, Instructor



A photo submitted to Trafalgar Square Books by Ms. Emily Tipton, Information Technology Specialist in the Department of Animal Science, was selected as a cover photo for one of the publisher's most recent books.

The book *"Horse Schools; The International Guide to Universities, Colleges, Preparatory and Secondary Schools, and Specialty Equine Programs"* written by Angelia Amos, features cover photos of students from Black Hawk College, Midway College and the University of Tennessee-Knoxville. The third edition is regarded as one of the most comprehensive guides on the market for providing information on equine schools and programs.

University of Tennessee animal science students Crystal Letterman, Thomas Burdine and Reece Walker were photographed taking body weight measurements during a horse handling lab.

UT Block and Bridle Club Members Attend the 87th Block and Bridle National Convention in Florida

Submitted by Trinette Ross, Instructor

Thirteen members of the University of Tennessee Block and Bridle Club attended the 87th Block and Bridle National Convention held January 25-27th in Kissimmee, Florida. More than 43 colleges and universities from around the country made the trek to sunny Florida for the convention that was hosted by the University of Florida. The days were packed with farm and industry tours, business meetings, informational sessions and networking opportunities with industry professionals and fellow animal science students.

Farm tours included stops at Vinery Stud, Seminole Feed, Earl Singleton Farms, Pearson & Smith Equine Breeding Farm, Melton Farms and Seed Company, Barthle Brothers Ranch, Austin Carriage Museum, Florida Thoroughbred Breeders and Owners Association, Ocala Breeders Sales, and HITS (Horse Shows In The Sun). All hosts were gracious and accommodating to the large numbers of students in attendance.

University of Tennessee Block and Bridle members attending the convention included Josh Freeman, Morgan Poole, Kendra Beckley, Crystal Letterman, Miceala Young, Monica Baxter, Natalie Francis, Beth Gilreath, Jessy Harris, Blair Elsea, Erin Bartley, Erica Mandi and A.J. Hayes. All served as exceptional ambassadors for the University of Tennessee and Department of Animal Science.

The 88th Block and Bridle National Convention will be held October 17-19, 2007 in Kansas City, Missouri. Additional information about the University of Tennessee Chapter of Block and Bridle can be found at their website <http://web.utk.edu/~bbclub/>.





The 4-H Sheep Project Continues to Attract Youth and Families

Submitted by Dr. Warren Gill, Extension Beef Specialist

The 4-H Sheep Project has been around for decades now, and it continues to provide exciting opportunities for youth to learn valuable lessons, not only about sheep, but also about competition, responsibility, leadership and cooperation.

Sheep offer several advantages as a 4-H project. They require a lower investment than most other livestock, have smaller space requirements and are easy for young people to handle. Sheep are generally docile and respond well to being trained to show in competition.

These advantages make the Sheep Project an excellent tool for engaging young people in an effective teaching environment. The sheep are merely an attractive “prop” that serves to develop life skills.

There are two basic parts of the Sheep Project: The market project (Market Lamb), and the breeding project (Breeding Ewe and Commercial Ewe). Members may participate in either or both of these projects.

The Market Lamb project is the simpler of the two project alternatives. The 4-H member selects market lambs, usually during late winter and spring (April is a typical time), and usually with the assistance of adult leaders, parents and/or 4-H agents. The lambs can be purchased or home-raised. The members then care for the lambs as they grow to market weight.

If the object is to show the lambs, they will generally be shown in summer or fall county shows, regional shows, the Tennessee Junior Livestock EXPO - Sheep Events, or in any of the numerous county fairs or larger events, such as the Tennessee Valley Fair (Knoxville), Tennessee State Fair (Nashville), or Mid-South Fair (Memphis).

The advantages of the Market Lamb project include relatively low cost, an ownership/management period of only a few months, and the many opportunities to participate in learning and competitive activities at the county, regional and state levels.

The Market Lamb project is often considered a good “starter” project for introducing youth not only to the Sheep Project, but also to 4-H in general. Experienced youth often continue with the Market Lamb project because of the exciting competition and the opportunity to make many friends.

The 4-H Breeding Ewe project allows young people to become more deeply involved in managing a group of breeding animals. This project typically involves ownership and management of a small (sometimes not-so-small) flock, but ownership is not an absolute requirement.

The primary advantage of the Breeding Ewe project is that it teaches youth many important lessons about managing a complex unit of animals. Many decisions have to be made related to selection, breeding, feeding, health management, and marketing. The 4-H member learns how to make informed decisions under the direction of parents, leaders, and 4-H agents. The shows mentioned above for the Market Lamb project also have classes for breeding ewes, as do the fairs.

The Commercial Ewe project is a fairly “simple” project, which resembles the Market Lamb project in that extended ownership is not required. It is acceptable if the member desires to develop a flock of breeding animals that are not purebred, but would ideally be of the quality that would compete in the Commercial Ewe division of shows like the Tennessee Junior Sheep EXPO.

Youth enrolled in the 4-H Sheep Project are eligible to participate in many events, such as livestock judging, 4-H Roundup, Jr. High Academic Conference, Public Speaking, and 4-H Congress.

Several state events are available for Sheep Project members. These include 4-H Sheep Conference (June 2, 2007, at Hyder-Burks Livestock Pavilion in Cookeville), 4-H Sheep Project Leader Forum (typically held in conjunction with the Tennessee Sheep Producers Annual Conference in December) and the main event: The Tennessee Junior Livestock EXPO - Sheep Events.

The 2007 Sheep EXPO, will be held July 30 through August 2 at the Hyder-Burks Livestock Pavilion. EXPO is far more than a sheep show. It is an opportunity for young people to show what they have learned through involvement with the 4-H Sheep Project. Beyond just showing their sheep, participants will be judged on the quality of their animals, as well as how well they present their sheep (showmanship), and how much they know about sheep and the sheep industry (Skillathon competition).

The highest award at the Sheep EXPO is Premier Exhibitor, which combines points accumulated from show placings, showmanship, and the Skillathon. This recognition truly brings the focus on the accomplishments of the young people. It also brings worthwhile rewards. Depending on the age level, the awards can range from a \$100 gift certificate toward the purchase of the lamb or ewe, to a belt buckle or grooming chute, all the way up to a \$1,000 Scholarship for post-secondary education.

Much of what is good about the Sheep Project includes the support and collaboration provided by the Tennessee Sheep Producer’s Association. Besides assistance with Premier Exhibitor awards previously mentioned, the Association also assist with numerous other awards, such as plaques and pelts, as well as assisting in many of the events and activities of the sheep project.

Numerous sponsors make this all possible. For example, Bob Brinkman from Coffee County, provides a \$1,500 Scholarship every year to the exhibitor of the Supreme Champion Ewe.

Many of the young people will gladly tell you that they also value the 4-H Sheep Project and EXPO because of the many friends they make and the fun they have. There must be something good going on because hundreds of young people and their families are involved in the Tennessee 4-H Sheep Project each year!



TN Junior Livestock Exposition Market Lamb Class.



Master Beef Producer Completes Third Year

Submitted by Dr. Jim Neel, Extension Beef Specialist

The Master Beef Producer Program recently completed its third year. More than 2000 producers from 64 Tennessee counties have participated in the program. The Master Beef Producer Program was developed to provide practical, research-based information to Tennessee cow-calf producers, resulting in improved profitability of their cattle operations.

The Master Beef Producer Program consists of 12 educational sessions, 3 hours in length, taught in a “seminar” type setting. In addition, several local sessions have involved “hands on” sessions and training in “Beef Quality Assurance.”

Producers were asked to estimate the impact on profitability of their operation if they applied the technology they learned as result of their participation in the Master Beef Producer Program. Thirty five percent (35%) indicated that improved profitability would range from \$2,000 to \$10,000 on their operations.

The program is funded by “user fees,” grants and scholarships to producers provided through the Tennessee Department of Agriculture.

The “basic” Master Beef Producer Program will continue and action is underway to implement an advanced, focused series of sessions for the graduates of the program.

The program is delivered by local University of Tennessee Extension agents that have been certified as “Trainers.”

Tennessee Cattle Lane Video Series Expanded

Submitted by Dr. Clyde Lane, Extension Beef Specialist

Ten videos have been added to the Tennessee Cattle Lane video series. The videos, along with their accompanying fact sheets, form an on-line library offered by the beef program of the University of Tennessee Extension and UT Department of Animal Science. More than 30 beef production and management topics are now featured in the series.

The new selections focus on animal identification, calf management, stockpiling fescue and animal nutrition.

Tennessee’s cattle and calf industry represents the largest of the state’s commodity groups, accounting for more than \$500 million in cash receipts and numbering more than 2.2 million head. This industry ranks ninth in the nation in terms of herd size. Cattle producers operate in every county in the state.

The Tennessee Cattle Lane project borrows its name from its developer, Dr. Clyde Lane, a Beef Specialist with UT Extension. The series offers educational opportunities for beef cattle producers and those interested in the industry.

To see a complete list of featured topics, including Beef Quality Assurance and Breeding Soundness Examinations of Bulls, visit the web site: <http://www.tncattlelane.org/>

There is no fee to view the videos or to print the fact sheets.

Contact your local county UT Extension office for more information about beef production practices.

UT Central Bull Evaluation Center Completes Final Test for 2007

Submitted by Dr. David Kirkpatrick, Extension Beef Specialist

The final test for the Bull Evaluation Center for 2007 was completed on January 24, 2007 with 73 bulls from 32 Tennessee purebred beef breeders of three different breeds. The test involves measuring an animal’s ability to gain rapidly from weaning to one year of age. This is important to the beef industry as it identifies individuals with superior genetics for growth and determines if they will pass those economically important traits on to their offspring thus improving the efficiency of beef production.



The high gaining bull in the test was an Angus bull consigned by BGS Angus of Piney Flats. B/R New Frontier 095 son gained 5.29 pounds per day on the 112-day gain test. He finished the test with an adjusted 365-day weight of 1348 pounds and a frame score of 6.5. The second highest gaining bull was another Angus consigned by Grassy Valley Farms of Greeneville. His gain was 4.94 pounds per day. The high gaining bull of the Gelbvieh breed was consigned by Goosepond Farms of Fayetteville, which gained at a pace of 4.54 pounds per day.

Of the 73 bulls that completed the test, only those that qualified from a growth and fertility requirement were offered for sale at the public auction at the Middle Tennessee Research and Education Center, Spring Hill, March 8, 2007. The Central Bull Evaluation Program is a cooperative program involving the University’s Extension Service, The Tennessee Agricultural Experiment Station Research and Education Center, The UT College of Veterinary Medicine and the Tennessee Beef Cattle Improvement Association. For more information regarding this program contact your local UT Extension Agent.

Take a Quick Tour of Thailand!

Submitted by Dr. Kelly Robbins, Professor



Share the experiences of students who participated in the 2007 Agriculture and Natural Resource study tour in Thailand by viewing some short podcast highlights. These clips are some highlights of our 7th consecutive study tour to the small country in Southeast Asia known as the Land of Smiles. This international student exchange program with Thailand's top agricultural university, Kasetsart University, operates annually. Highlights may be downloaded to your iPod or may be viewed on your computer. To view on the computer you will need QuickTime Viewer (a free download can be obtained at <http://www.apple.com/quicktime/download/win.html>). The series of six podcasts are found at <https://volcasting.utk.edu/podcast/courseListing.php?crs=24>.

Boo! at the Zoo

Submitted by Luana Henley, Principal Secretary

Every year in October a major fundraising event known as "Boo! at the Zoo" is held to raise funds that benefit the animals at the Knoxville Zoo. Members of the UT Animal Science Graduate Student Association participated in the 2006 event, providing an "ag appropriate" theme, creating for their display an eerie barn yard scene, complete with a cow, pig, and chicken.



More than 22,000 visitors viewed the displays during the 8 day event, which raised more than \$100,000 for the zoo. Ms. Theresa Collins, Special Events Manager at the Knoxville Zoo, indicated all were delighted that the ASGSA participated in the fundraiser, and she complimented the group on their display and their volunteer spirit. Information regarding the 2007 Boo! at the Zoo can be found at: <http://www.knoxville-zoo.org/boo.htm>.

UT Animal Science Works Closely With Tennessee Cattlemen's Association

Submitted by Dr. Jim Neel, Extension Beef Specialist

At the recently held Tennessee Cattlemen's Association, there was a strong showing of cooperation between the Tennessee Cattlemen's Association and the University of Tennessee Animal Science Department. Members of the Animal Science Department hosted the pre-convention tour on the UTK campus and presented information on research and Extension activities. At the convention, Animal Science faculty members answered questions for attendees at the "Ask the Expert" booth. Faculty members also provided a booth highlighting teaching, research, and Extension programs.

Dr. Fred Hopkins participated on the program, providing an update on Persistent Infected BVD and Dr. Clyde Lane gave an update on the Tennessee Beef Quality Assurance Program. The Student Cattlemen's Association from the UTK Animal Science Department featured beef as they prepared the luncheon meal of steak sandwiches for the attendees.

Truly, the University of Tennessee Animal Science Department is a partner with producers and organizations representing beef in Tennessee.



ANIMAL SCIENCE INSIGHTS

One for the road

Revolutionary animal health bag promises big livestock benefits

Article compliments of Mark E. Johnson, Tennessee Cooperator, October/November 2006

The inspiration for a good idea can come from anywhere.

For Sir Isaac Newton, it came from a falling apple. Levi Strauss saw potential in yards of unwanted tent canvas and thousands of poorly dressed 49ers.

And last December, Dr. Clyde Lane's epiphany arrived with the recollection of a gallon of ice cream at a grocery store checkout lane.

"I was sitting in my office trying to come up with ways to get our Beef Quality Assurance [BQA] message across," explains Lane, A University of Tennessee professor of animal science and state coordinator of the BQA program. "For some reason, I remembered seeing a supermarket clerk putting ice cream into an insulated bag. I thought, 'Now, why can't we do that with our vaccines?'"

Now, less than a year later, 50,000 insulated, informational animal health bags are being distributed to Co-ops statewide and are expected to have a substantial impact on Tennessee's beef industry.

For years, beef production experts like Lane have been preaching the importance of the proper handling of animal health products like vaccines and some antibiotics that require refrigeration. If the medicine gets either too cold or, more likely, too warm, its effectiveness can be compromised. The results are huge, industry wide losses due to vaccine replacement, added vet costs, and unnecessary tissue damage.

"Whenever I am conducting a workshop about animal health, I'll walk around the parking lot beforehand and see how many vehicles I can spot with a bottle of vaccine or antibiotics laying on the dashboard," Lane says. "I'll almost always find at least one-usually several."

Lane says he uses this anecdote to illustrate a simple point: Most farmers don't go straight home after a visit to the animal health cooler at their local Co-op.

"They're going to run several other errands while they're in town," he says. "We've advocated for a long time that people bring a cooler with them, but that's not very realistic. However, an insulated envelope, or bag, given out with each vaccine purchase would solve that problem. It would keep the product cool long enough to get it home and into the refrigerator."

Soon after Lane landed on the idea, he contacted John Houston, manger of Tennessee Farmers Cooperative's Animal Health Department, and explained his vision. Houston immediately saw the potential for this type of bag to solve multiple problems and the pair identified a manufacturer.

"The beauty of the bag is that it really kills three birds with one stone," says Houston, who coordinated the manufacturing process of the silver bags that will be provided free of charge to Co-op customers who purchase animal health products. "It is insulated to keep products requiring refrigeration at the proper temperature; it is made of a reflective material that prevents sunlight from reaching the product, which can decrease its effectiveness; and, perhaps most importantly, it has BQA vaccination guidelines printed on the outside."

Houston says these guidelines-which include a diagram illustrating the proper injection sites and recommendations on needle size, vaccine and antibiotic storage, and syringe use-will go a long way toward reducing monetary losses attributed to the tissue damage that often results from improper vaccinations.

"We want to make sure that injections are given in the neck area, as outlined by BQA standards," Houston explains. "This part of the animal is not normally consumed, so if tissue damage occurs, it won't result in a financial loss. The bag also outlines proper vaccination and product handling techniques so that instances of tissue damage can be avoided altogether."

"With this product, we're being proactive," says Lane, who presented the idea to an enthusiastic group at the National Beef Quality Assurance Coordinators meeting in Kansas City in June and would like to see it implemented nationally. "There's nothing else like [the bag] in the country, and it will put critical information into the hands of people we may not make contact with otherwise. When they buy the product, they get the bag."

Lane credits Tennessee Farmers Co-op and the financial support of many of TFC's vaccine suppliers for helping to bring the bag-and a 'simple' idea-to reality.

"You know, it's the big ideas that we think we've got to have," says Lane with a grin. "But this is just a little one, yet it could make such a big difference."



Clyde Lane holds the new insulated vaccine bag.

Academic Quadrathlon Team Has Best Ever Finish

Submitted by Aaron Fisher, Instructor

The 2007 UT Academic Quadrathlon Team, representing the Department of Animal Science, recently competed in the regional competition as part of the Southern Section Meetings of the American Society for Animal Science held in Mobile, Alabama in February. The Academic Quadrathlon is an animal science-based, academic competition consisting of a written exam, quiz bowl, lab practicum, and oral presentation. Eleven 4-member teams representing universities from across the southeastern United States competed in the event. The UT team finished 1st in written exam (for the 3rd consecutive year), 8th in the quiz bowl, 7th in the lab practicum, and 3rd in oral presentation, placing them 2nd in the overall competition. Team members included Erin Fitzgerald (Chicago, IL), Nathan Butler (Knox County), Matt Backus (Blount County), and Katie Oliff (Rutherford County), all Animal Science majors.

Animal Science Reflections

Dr. Jenifer Nadeau, (UT AnSci PhD, 2001) promoted to Associate Professor with Tenure at UConn.

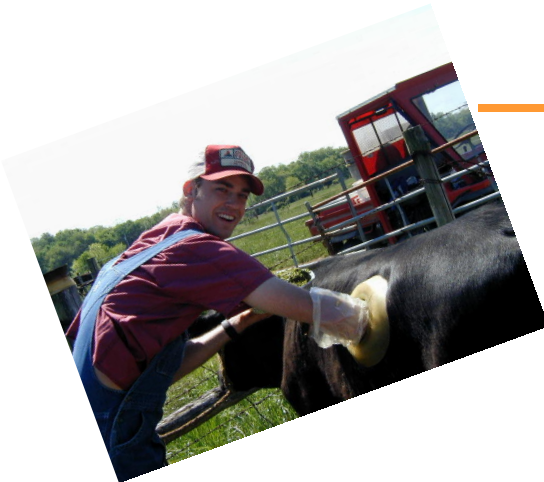
Article compliments of Dr. Frank M. Andrews, Large Animal Clinical Sciences, UT College of Veterinary Medicine

A big congratulations goes to Dr. Jenifer A. Nadeau, who received her M.S. in Comparative Experimental Medicine (1997) and Ph.D. in Animal Science (2001), as she was recently promoted to Associate Professor with Tenure in the Department of Animal Science at the University of Connecticut. The promotion and tenure will take effect as of August 2007.



Dr. James Klotz, (UT AnSci BS, MS, PhD 2004) finds success with the USDA Agricultural Research Service at the University of Kentucky.

“I was born in Clarksburg, WV in 1974. In the early years my family moved around a bit and finally settled in Columbia, TN. I graduated from Columbia Central High in 1992 and promptly started what would become a 12-year stint at the University of Tennessee. I ended my time at The University of Tennessee after receiving my third diploma in May 2004. Shortly thereafter, I accepted a post-doctoral position as a research animal scientist at the newly formed USDA-ARS, Forage-Animal Production Research Unit in Lexington, KY. Within the unit, I am part of a program led by Dr. James R. Strickland that is developing and validating in vitro and in vivo models for the study of forage-induced metabolic perturbations on grazing livestock. A component of this research is the characterization of the vascular effects caused by exposure to ergot alkaloids. For this, I have established a saphenous vein biopsy procedure that was originally developed by Dr. Jack Oliver’s research group at the University of Tennessee. Also, I have been collaborating with many of the Animal and Plant Science faculty at the University of Kentucky and simply put, have just been enjoying the academic, research, and life experiences that make up a post-doctoral odyssey.”



Dr. Michael Henson (UT AnSci MS, 1981), accepts Department Head position at Purdue University, Calumet.

Dr. Michael Henson, who received the BS degree in Animal Science at UT Martin, the MS in Animal Science at UT, Knoxville and the PhD at the University of Arkansas, has spent the past 14 years on the faculty at the Tulane University School of Medicine, New Orleans, LA. He recently accepted the position of Head of the Department of Biological Sciences at Purdue University, Calumet. The Purdue Calumet campus is located in northern Indiana near the city of Hammond. Dr. Henson and his wife Libby (also a UTM Animal Science Alumnus), have 3 grown children: Kate, Rachel and Chris. The Henson’s send their greetings to all UT Animal Science alumni and friends, wherever they may be.



Congratulations to the Animal Science Graduates of 2007

Undergraduate Students

Danielle R. Bacon, Spring 2007
Jennifer L. Barsuglia, Spring 2007
Monica B. Baxter, Spring 2007
DeAnna E. Bennett, Spring 2007
Jodi M. Bogle, Summer 2007
Nathan T. Butler, Spring 2007
Kate E. Carpenter, Spring 2007
Michelle C. Carazao, Spring 2007
Natalie N. Dickson, Spring 2007
Cameron J. Dobson, Spring 2007 *Magna Cum Laude*
Christopher J. Foster, Spring 2007
Kaleena N. Gross, Spring 2007
Courtney A. Hancock, Spring 2007
Carrie E. Harris, Spring 2007
Julie S. Haskew, Spring 2007
Sarah E. Hutcheson, Summer 2007
Tosha LeTelle Jeffers, Spring 2007 *Summa Cum Laude*
Jessica D. Jones, Spring 2007
Marianne E. Lewis, Spring 2007 *Cum Laude*
Erica Mandi, Spring 2007
Emily M. Murr, Spring 2007 *Magna Cum Laude*
Jenny L. Prater, Spring 2007 *Cum Laude*
Helen E. Reaves, Spring 2007 *Summa Cum Laude*
Lori C. Scholl, Spring 2007 *Cum Laude*
Robert W. Shealy, Spring 2007
Scott J. Silverstein, Spring 2007
Jon T. Tisdale, Spring 2007 *Magna Cum Laude*
Emily A. Uselton, Spring 2007 *Summa Cum Laude*
Jessica M. Wallace, Spring 2007
Kaelin J. Willis, Spring 2007
Magan D. Wise, Spring 2007
Houston W. Wyatt, Spring 2007

Master of Science

Angela Pollock Loughery, Spring 2007
Rodney Lynn Mills, Spring 2007
Paul Roberson, Spring 2007

Doctor of Philosophy

Sukanya Rattanabtimtong, Spring 2007

Department Notables

Faculty Award of Excellence:

Dr. Doyle Meadows, Professor of Animal Science
Dr. Fred Hopkins, College of Veterinary Medicine

UTIA Faculty & Staff Initiated as Members of Gamma Sigma Delta:

Joan Cooper, Animal Science
Aaron Fisher, Animal Science
Kristy Hill-Campbell, Animal Science
Cheryl Kojima, Animal Science
Jun Lin, Animal Science

Graduate Student Inducted into Gamma Sigma Delta:

Gregory Joseph Ochs, Jr., Animal Science
Amber N. Bogart, Animal Science
Sukolrat Boonyayatra, Animal Science
Rebekah Norman, Animal Science

Student Merit Award Winners:

Outstanding Freshmen: Amber Bowling & Vanessa Hale
Outstanding Sophomores: Kelly Louis Grimes, Lindsay Harper & Seth Kiser
Outstanding Junior: Emily Anne Uselton (Fall 06)
Outstanding Senior: Emily Anne Uselton (Spring 07)

Torchbearers:

Carrie Elizabeth Harris

Top Scholar:

Helen Reaves

Extraordinary Professional Promise:

Rebecca Payton

Animal Science Clerical Award:

JoAnn Galyon

Animal Science Technical Staff Award:

Rose Clift



CASNR Outstanding Advising Award:

Aaron Fisher

CASNR W.F. & Golda Moss Outstanding Teaching Award:

Dr. Mike Smith

CASNR Outstanding Staff Award:

Emily Tipton

Births & Marriages



Charlie & Miranda Young welcomed their son, **Luke Charles** on April 25, 2006 at 8:23 am. He weighed 7lbs 5oz and was 21 1/2 inches long.

Aaron & Teri Fisher welcomed their daughter, **Lauren Elizabeth** on June 24, 2006 at 5:55 am. She weighed 8lbs 6oz and was 19 inches long.

Gustavo & Paula Schuenemann welcomed their 2nd child, a son, **Frederico Agusin** on February 1, 2007 at 4:10 pm. He weighed 7lbs 8oz and was 21 inches long.

Joan Cooper has a new grandson, **Isaiah Cooper Laws**, born November 19, 2006. He weighed 8lbs 13 oz and was 21 1/2 inches long.

Mary Roberts also has a new grandson, **Julian Lucas Roberts**, born November 21, 2006. He weighed 8lbs 6 oz and was 20 inches long.

Congratulations.....

Dr. Mark & Mrs. Kristy Campbell were married on October 21, 2006. They reside in Strawberry Plains, TN.



Dr. Jim & Mrs. Judy Neel were married on May 5, 2007. They reside in Knoxville, TN.



Calendar of Events

June 1-2

Western Region Horse Show, UT Martin

June 2

4-H Sheep Conference, Putnam County Fairgrounds

June 5

Tennessee 4-H State Livestock Judging Contest

TN Livestock Center, Murfreesboro, TN

June 7-9

Eastern Region Horse Show, Harriman, TN

June 21-23

National Holstein Convention, Knoxville, TN

June 19-23

Tennessee 4-H Horse Championships, Shelbyville, TN

July 2-3

Western Region Beef & Sheep Show, UT Martin

July 6-9

Central Region Beef Show, Murfreesboro, TN

July 6-9

Central Region Sheep Show, Cookeville, TN

July 9-13

Tennessee Jr. Livestock Exposition-Beef Events

TN Livestock Center, Murfreesboro, TN

July 30-August 3

Tennessee Jr. Livestock Exposition-Sheep Events

Hyder-Burks Pavillion, Cookeville, TN

September 3

Block & Bridle Calf Sale

Brehm Arena, UT

September 15

State Junior Market Goat Show, Nashville, TN

October 19-20

State 4-H Dairy Show, Murfreesboro, TN

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*Be sure to complete and return the
alumni information card
or e-mail news directly to
asnews@utk.edu.*



Department of Animal Science Contribution Card

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Animal Science Insights

Spring/Summer 2007

Published by The University of Tennessee's Department of Animal Science as a link among the state's land grant institution, alumni and friends. The department's doors are open and questions and comments are welcome.

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Ms. Emily L. Tipton

Alumni Information

We want to hear from you! Have you moved? What are you doing?

Keep us up-to-date regarding your current address, professional involvement and news-worthy items, by completing the information below and returning to the Department of Animal Science, 2505 River Drive, Knoxville, Tennessee 37996-4574 or visiting our website at <http://animalscience.ag.utk.edu/>.

If you know of Animal Science alumni, friends or supporters who are not receiving this newsletter, please let us know how to contact them.

Name: _____ Graduation Date: _____

Address: _____

E-mail: _____

News Items or Comments: _____

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