



Department of ANIMAL SCIENCE

Fall A Biannual Newsletter for Friends and Alumni 2013

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Department Head's Notes

By the time you read this edition of the newsletter, I will have served as department head for Animal Science for two years. People ask me all the time if I'm still having fun, and the answer has not changed — it's still, Yes! The faculty, staff, graduate and undergraduate students as well as our producer and county agent clientele make my job easy. Our undergraduate population has grown to almost 500, and we expect to go over that number easily next year. Even though we have had a few growing pains with our renovated building, we are moving forward as a department. We have hired two new tenure-track faculty members, Agustín Rius and Lew Strickland, with great expectations for their programs. We also hired another faculty member on a temporary basis, Freddie Kojima, until we replace John Waller. Both John Waller and Dick Heitmann retired at the end of August. John is out in his travel trailer and probably fishing, and Dick is on the golf course. We still have a few faculty lines that need to be filled, and

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the administration is working with us to get these filled as soon as we have some idea of the federal budget.

We have held several large events in the newly renovated Brehm Animal Science Building, including the Tennessee Co-op Knows Beef Bonanza, All-East Collegiate Livestock Judging Contest, 4-H State Livestock and Meat Judging contests, Farm Credit Customer Appreciation dinner, with many more to come this fall and winter. Among these are the Rocky Top Classic Cattle Show, Eastern Region 4-H Swine Show, Tennessee Small Ruminant Conference, Block and Bridle Roundup, East Tennessee Angus Association and East Tennessee AgResearch and Education Center Show and Sale). Our beef merchandising class, led by Jessy Harris Shanks, is working with the East Tennessee Angus Association and the East Tennessee AgResearch and Education Center to coordinate the sale activities as a learning experience for the students. This is a great opportunity for our students, and we hope that this association will continue for many years into the future.

We continue to recruit the top 4-H and FFA students in the state whenever possible. I'm proud to say that the high individuals in the 4-H livestock and meats contest are in our current freshman class. We have several excellent agriculture programs in colleges across the state, but I'll continue to be selfish in wanting the best animal science students here at UT. We may lose a few but it won't be for lack of trying!

I'm expecting a continued increase in our research activities with the faculty that we have hired over the past several years. As we continue to upgrade lab space here in Brehm and the AgResearch and Education Centers facilitate our researchers' needs, the opportunities for outstanding research outcomes are great. One large difference that I've noticed is the collaboration across animal science disciplines (nutrition, reproduction, health and well-being, genomics), faculty within the Large Animal Clinical Sciences department in the College of Veterinary Medicine, and faculty in other departments (Plant Sciences, Biosystems Engineering and Soil Science, Agricultural and Resource Economics, Food Science and Technology and especially new faculty in Entomology and Plant Pathology). Most of these departments have

new faculty and leadership who promote and encourage these collaborations that I believe will lead to even greater discoveries, especially in the animal science field. These findings will then be provided to our producer clientele through our outstanding Extension faculty.

I could sit here and brag about every one of our faculty, staff, graduate students, undergraduates, alumni and supportive producers and county agents. However, the simplest way to do that is to just say, Yes, my job is fun and you all make it easy! Remember that you are always welcome to stop in for a visit or just pick up the phone and give me a call.



E. Neal Schrick
Professor and Head
Department of Animal Science



From left to right: Steve Edwards, Lacy Upchurch, John Edwards, Emily Upchurch, Gregg Upchurch.

Alumni Spotlights

The Animal Science Department is often described as a family — a family of friends and colleagues that make up a strong and rich tradition of agricultural enthusiasts. The tradition of following in a family member's footsteps also is a strong characteristic of the department. The Upchurch and Edwards family are examples of this tradition.

Lacy Upchurch is currently serving the Tennessee Farm Bureau Federation as the organization's seventh president. He has served on the TFBF board since December 1995 and was vice president from 2000 through 2005 until his service as president began. A native of Fentress County, Lacy received his B.S. and M.S. degrees in animal science. He began his agricultural career with UT Extension as an Extension agent in Madison and Cumberland counties. Following his time in Extension, Lacy became a full-time farmer with a successful swine operation. Since then he has moved into beef cattle production and is one of Cumberland County's major beef producers. He has served as chairman of the Tennessee Pork Producer Association and served on the board of the Tennessee Cattlemen's Association. Upchurch and his wife, Kay, have three children and seven grandchildren.

Lacy's son Gregg Upchurch is a UT Extension agent in Cumberland County serving the agricultural community. He graduated from the Animal Science Department with a B.S. in December 1987. He then completed his master's degree in animal science in December 1995 after serving as an Extension agent in Putnam County. Gregg has held his position in Cumberland County since 2003 when he moved to Crossville after teaching at UT. In addition, he was an academic adviser and the livestock judging coach from 1993-2003. Since moving back to his home county, Gregg has continued livestock judging for the county's 4-H teams. He has been very successful and coached teams to national contests in Arizona, Colorado and Kentucky. Currently, Gregg is serving as the head coach for the Tennessee Livestock Skillathon Team that will compete in Louisville, Ky., in November. In his spare time, he operates a commercial beef herd in cooperation with his father, Lacy.

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Gregg's daughter Emily Upchurch is currently a first-year law student at Drake University Law School in Des Moines, Iowa. Upon graduating from UT in December 2012 with a B.S. in animal science, Emily worked for UT Extension and the UTIA Office of Institutional Advancement until moving to Iowa. Prior to her collegiate career, she grew up participating in livestock events from showing sheep and hogs to competing on livestock judging and skillathon teams. Her knowledge of the Animal Science Department led her to pursue a degree in Knoxville where she was active in the Block and Bridle Club and competed on the 2011 Livestock Judging Team. Emily plans to pursue a career practicing agricultural law after graduating from Drake in 2016.

Lacy's son-in-law Steve Edwards is from LaFollette, Tenn., and a 1985 undergraduate of the Animal Science Department. He also has a master's degree in education from Union College and currently serves as the UT Extension director in Campbell County. He coaches the Campbell County Livestock Judging and Meats Judging Teams. The Meats team was named champion at the state contest and competed in Manhattan, Kan., in October for a national title. Steve is married to Melissa Upchurch Edwards, and they reside in Speedwell, Tenn., with their three children, Sarah, Taylor and John. The Edwards family owns and operates Edwards Club Lambs along with a small commercial beef herd.

Steve's son John Edwards is a 2013 graduate of Cumberland Gap High School where he was a class valedictorian and active in both 4-H and FFA. He is passionate about his livestock and has shown sheep, cattle and hogs, experiencing success in the show ring on all levels. John has served on the Eastern Region 4-H All Star Council and was the East Tennessee Star Farmer and Sheep Proficiency winner for FFA. He will compete in two national contests this year for the Tennessee Meats Judging Team and the Tennessee Skillathon Team. John is currently a first-year animal science major at UT.

Charlie Goan Inducted Into the Tennessee Poultry Hall of Fame

The Tennessee Poultry Association proudly inducted their first Hall of Fame members on Aug. 17, 2013, in Nashville, Tenn. Charlie Goan was part of the initial class of five.

A former University of Tennessee poultry Extension specialist, Goan has made a tremendous mark on the Tennessee poultry industry and community. He began his career at UT in 1971 and officially retired in 2008. He has touched many lives in so many ways and continues to be available to the industry and UT when called upon. Congratulations!



Eddie Jarboe Wins Mildred Pendergrass Award

Eddie Jarboe, who just completed 45 years of service to the institute, recently received the Mildred Pendergrass Award.

Jarboe serves as a laboratory coordinator for the Animal Science Department. His career started in 1968 at the Comparative Animal Research Lab in Oak Ridge, and he joined the Animal Science Department not long after that.

The Mildred Pendergrass Award recognizes superior service. In addition, Jarboe is praised for being reliable and professional when helping both faculty and graduate students. He's the person to see if you need to locate equipment, order supplies, or if you need help with sample collections and analyses. Jarboe played a key role in helping the department make the transition to the newly renovated Brehm Animal Science Building. He rarely seeks the limelight, often willing to let others take the credit. His colleagues know how valuable he is to the department.



Dean Bill Brown of AgResearch (l.) and Chancellor Larry Arrington present Eddie Jarboe with the Mildred Pendergrass Award.

Arnold Saxton Wins Webster Pendergrass Award

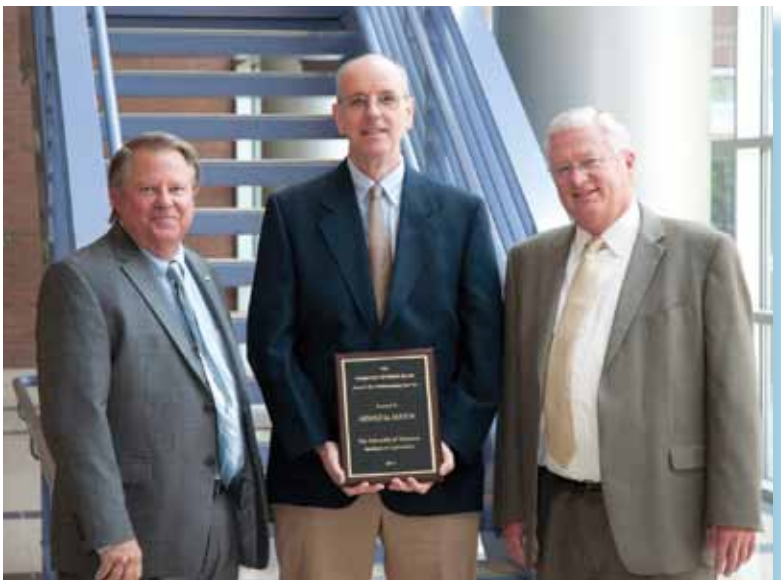
Arnold Saxton, a professor in animal science known for his work as an agricultural and biological statistician, recently received the Webster Pendergrass Award.

Saxton is an enormous help to faculty and students in a wide range of ways that are vital to their research. Be it animal or plant, field or lab, Saxton is interested in statistics related not only to genetics, but also to all other areas of agriculture.

He also has a passion for graduate education and has served on more than 140 student committees. But the classroom is where he is gifted in communicating the information students need.

How much does he care? As it was related in the awards ceremony, Saxton videotaped his lectures for a Ph.D. student who missed class while she was about to give birth to her second child.

Saxton is patient, humble, and has a great sense of humor and one of the sharpest minds in the institute.



Dean Bill Brown of AgResearch (l.) and Chancellor Larry Arrington present the Webster Pendergrass Award to Arnold Saxton.

New Faculty Spotlights

Low Strickland

New faculty member Low Strickland was raised on his family's dairy farm in East Central Alabama and continued to work there for 12 years as an adult. He earned a B.S. in animal dairy science and a DVM from Auburn University. Strickland practiced large animal veterinary medicine in Cleveland, Tenn., for five years and then in central Pennsylvania for two years. He returned to Auburn University to earn a master's degree and became board certified in theriogenology. After completing his residency, Strickland served as the interim extension veterinarian at Auburn University. Since 2011, he has owned and operated his own large animal practice.



Strickland will reside temporarily in Maryville until he can find a permanent residence. He is married and has four children and enjoys spending time with his family, working on the farm, and playing bluegrass music on his mandolin.

Agustín Ríus

Agustín Ríus was born and raised in sheep country in the southern part of Argentina in a region known as Patagonia, where open plains are full of wildlife. Ríus's interest in animal science was developed at young age as he managed to keep and look after rabbits, chickens, ducks and even a 6-gallon tropical fish tank on his own. These experiences led him to study veterinary medicine after graduating from high school. He attended the School of Veterinary Medicine at La Plata National University where he taught veterinary histology and embryology for several years. Ríus also joined the virology laboratory where he learned tissue and cell culture techniques and molecular approaches to study infectious diseases in domestic animals. These eye-opening experiences exposed him to the research community and confirmed his interests in this area.



Since receiving his degree, Ríus' career has focused on ruminants' physiology and nutrition. He has worked at the National Institute of Agriculture in Argentina and the U.S. Department of Agriculture's Dairy Forage Research Center in Madison, Wis., where he was involved in investigations to elucidate the effect of calcium on phosphorous metabolism in lactating dairy cows. After that experience he received a master's degree in animal science from the University of Illinois at Urbana-Champaign, then worked at Virginia Tech University and DairyNZ in New Zealand.

Ríus joined the Department of Animal Science as a dairy cow nutritionist with a 60 percent research and 40 percent teaching appointment. He hopes that his research efforts will provide

clues to better understand nitrogen metabolism in cattle and to offer alternatives to reduce carbon footprint, which will benefit the dairy industry of Tennessee.

4-H Has Successful Show Season

Another successful show season has come to a close in Tennessee. The countless hours spent in the barn have paid off in teaching more than 1,500 Tennessee youth valuable life lessons in responsibility, hard work and sportsmanship. From the State 4-H Horse Championships in June to the State Junior Meat Goat Show in August, Tennessee 4-H members across the state proudly exhibited their livestock and horses in hopes of walking away with a championship title.

State 4-H Horse Championships

The State 4-H Horse Championships kicked off the summer show season. Three hundred forty Tennessee 4-H members showed 474 horses in various disciplines from western to hunter to Tennessee's own walking horses. Following the horse show, 51 of the best 4-H Horse Project members competed during the 2013 Southern Regional 4-H Horse Championships in West Monroe, La. The Southern Regional 4-H Horse Championship is a culmination of the top 4-H horses, riders and educational contest participants from 13 southern states. From Tennessee, 34 horse/rider combinations and 13 delegates competed in a number of educational contests. Keeley Carr from Rutherford County was awarded high point champion in the Non-trotting Division on her horse Power's Wise Warrior. Fellow Rutherford County 4-H member Maggie Loyd received honorable mention in the Non-trotting Division.

Tennessee Junior Livestock Expo

The Tennessee Junior Livestock Expo kicked off in July with the Beef Expo. Two hundred twenty-three 4-H and FFA members from 53 different counties exhibited 447 steers and heifers. Judges Tom Turner from Ohio and Brady Ragland from Texas had a tough job sorting through some of the finest beef cattle in Tennessee. A new addition to the Expo was the July Beef Month Appreciation dinner sponsored by the Tennessee Beef Industry Council. The dinner was a huge success with nearly 300 exhibitors, parents, volunteers, sponsors and beef cattle producers going through the food lines. After the meal, awards were presented for the Tennessee Beef Ambassador Program. This opportunity allows for youth to help educate consumers and other youth about beef nutrition, beef safety and stewardship practices of the beef industry. The winner of the contest was Rachael Wolters from Maury County who went on to win a spot on the National Beef Ambassador Team in September.

Winning the coveted Grand Champion Market Steer was Sarah Ramsey from Hancock County with her 1,215-pound steer. Reserve Champion honors went to Morgan Lehnert from Lawrence County. In the Commercial Heifer division, Lehnert took home the championship plaque. Receiving Reserve Champion honors was Taylor Green from Cumberland County. At the close of the show, a supreme champion female drive was held.



Jessy Shanks (r.) presents a belt buckle to the Grand Champion Commercial Heifer exhibitor Morgan Lehnert.

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Madison Martin from Monroe County was awarded the Winning Supreme Champion Heifer with her Percentage Simmental heifer. Reserve Champion Heifer honors went to Lehnert's champion commercial heifer. Others in the top five were Mackenzie Bacewell from Williamson County and Ashlynn Light from Hawkins County.

Before the dust could settle from the Beef Expo, the Sheep Expo kicked off at Hyder-Burks Agricultural Pavilion in Cookeville, Tenn. Two hundred thirty-nine 4-H and FFA members from 43 different counties exhibited 758 wethers and ewes under judges Terry Dumas from Louisiana, Jason Shuck from Indiana and Craig Beckmier from Illinois.

Taking home Supreme Champion Bred by Exhibitor honors in the Registered Ewe Division was Cassie McConkey from Loudon County with her southdown ewe. Dillon Jones from Warren County was awarded Reserve Champion Bred by Exhibitor with his dorper ewe. In the Commercial Ewe Division, John Edwards from Campbell County took home the Heather Webster Thompson Memorial Trophy for his champion commercial ewe. Jared Bruhin from Sevier County received reserve honors. Closing out the show was the ever-popular Market Lamb Show. Taking home the championship award was Karley Warner from White County with her 138-pound Hampshire lamb. The Reserve Champion Lamb was the 148-pound crossbred wether shown by Annabelle Goodman from Williamson County. Rounding out the top five market lambs awards were John Edwards from Campbell County, Luci Allen from Macon County, and Brooklyn McClard from Macon County.

A special thank you to the Tennessee Cattlemen's Association and the Tennessee Sheep Producer's Association for their hard work in securing sponsorship for premium money awarded during this year's Beef and Sheep expos.

State Junior Meat Goat Show

The 2013 State Junior Meat Goat Show was held during the Wilson County Fair in August. Fifty-eight 4-H members from 16 counties exhibited 203 goats. Judge Will Cabe from Georgia sorted through the top market goats and commercial does in the state. The 104-pound champion market goat shown by Trevor Teague from Decatur County was awarded the Supreme Champion Goat. The champion doe kid shown by Eli Armistead from Robertson County was honored as the Supreme Champion Farm Bred Goat.



David Roper (r.) presents a belt buckle to the Grand Champion Angus Heifer shown by Micheal Harr.



Taking home Supreme Champion Bred by Exhibitor honors in the Registered Ewe Division was Cassie McConkey, Loudon County, with her southdown ewe.

Poultry Science Association Chooses Animal Science Professor as Leader

Michael O. Smith, professor in the Department of Animal Science, was recently elected president of the 105-year-old Poultry Science Association. Smith teaches courses in poultry production, serves as the scholarship coordinator for the College of Agricultural Sciences and Natural Resources and also holds an appointment with UT AgResearch conducting research in poultry management under heat stress conditions. He was elected to the post at the organization's annual meeting, held July 21-25 in San Diego.



The Poultry Science Association is a professional organization made up of educators, scientists, extension specialists, administrators and producers who are committed to advancing the poultry industry. The organization is a global scientific society dedicated to the discovery and dissemination of knowledge generated by poultry research – knowledge that enhances human and animal health and well-being and provides for the ethical, sustainable and economical production of food. Founded in 1908, PSA has a global membership of about 1,400. For more information, visit <http://www.poultryscience.org>.

Smith's research focuses on physiological and nutritional factors involved with the growth and survival of poultry, particularly those populations facing heat stress, a detrimental environmental factor affecting producers worldwide. He also studies the interaction among nutrients, other additives and environment in this type of bird population. Based on his research, he promotes management and nutrition-based tools to augment poultry production during heat stress.

Alumni King and Crouch Featured in BEEF Magazine as Leaders in the Cattle Industry

Dell King

Dell King has been a central cog in the work to improve the quality and health of Southeastern feeder cattle over the past 50 years. A graduate of the Department of Animal Science, King began his career as a packer buyer of fed cattle. In 1968, he founded King Livestock Co. in Hopkinsville, Ky.

King is a major cattle buyer in the southeastern United States, specializing in high-quality feeder cattle (genetics and health), and is actively involved in all aspects of cattle procurement and management of the company, which has developed into a family operation with his son, Chuck, and wife, Nancy, as business partners. Later, he formed King Livestock Express in order to allow King Livestock to guarantee that feeder cattle were shipped in a timely manner, with a minimum amount of stress.



Active in his county, state and national beef cattle organizations, King was an early promoter of preconditioning and Beef Quality Assurance before they were commonly accepted in the U.S. beef industry. He was instrumental in starting the Kentucky Certified Preconditioned for Health (KY CPH-45) feeder-calf health and marketing program.

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King also helped develop the BQA Master Cattle Transporter Guide by working in the development group, meeting with other cattle trucking companies, appearing in transportation videos to teach proper loading techniques, and he also developed a loading card for the truck drivers to use in distributing cattle properly onto the cattle trailers.

John Crouch

John Crouch grew up on a registered angus farm near Jonesborough, Tenn., and managed purebred and commercial cattle following his completion of an animal husbandry degree from UT. During his 34-year career within the American Angus Association, he was at the forefront of breed improvement programs in the beef industry.

Crouch served AAA in various capacities ranging from regional manager in the Southeast, a position he assumed in 1974, to director of performance programs in 1981, and eventually CEO in 2002. In 2003, he organized a strategic planning session for the AAA board to assess the association's strengths and weaknesses, as well as its role in the industry. Ultimately, the board narrowed the organization's focus to five core strategies: achieve angus excellence through information, increase beef demand with angus equity, identify and implement relevant technologies, optimize resources, and create opportunities.



During his leadership, the AAA restructured and modernized, the Angus Foundation's role was prioritized, and Certified Angus Beef carcass specifications were redefined. In addition, Crouch helped to:

- Develop dollar-value indexes (\$values) for total beef value (\$B), weaned calf value (\$W) and grid value (\$G).
- Develop genetic predictions for calving ease direct and maternal, as well as heifer pregnancy and temperament.
- Initiate research to incorporate DNA tests into genetic evaluation and to develop genetic predictions of feed efficiency.
- Bring National Cattle Evaluation in-house.

*Excerpted from BEEF magazine, "BEEF Honors 50 Top Industry Leaders," Sept. 4, 2013.

Michele Wilson Joins Department as Web Development Specialist

Michele Wilson is the department's new web development specialist. Many around the institute already know Wilson or are familiar with her talents. She joins us from the Department of Agricultural and Resource Economics, where she developed and supported numerous websites and compiled and distributed weekly market data reports and podcasts. She will be responsible for designing, developing and maintaining the department's websites.



2014 Animal Science Calendar of Events

Event Title	Location	Date
4-H Beef Quiz Bowl	Music Road Inn Pigeon Forge, Tenn.	Jan. 17
State 4-H Swine Show	Tennessee Livestock Center Murfreesboro, Tenn.	Jan. 20-21
UT Senior Bull Test Station Sale	Middle Tennessee AgResearch and Education Center Spring Hill, Tenn.	Jan. 23
Tennessee Cattlemen's Association Convention	Music Road Inn Pigeon Forge, Tenn.	Jan. 23-25
Southern Section — AM Society of Animal Science	Dallas, Texas	Feb. 1-4
Cattle Industry Convention and NCBA Trade Show	Gaylord Opryland Resort and Convention Center Nashville, Tenn.	Feb. 4-7
State 4-H Horse Educational Contest	Brehm Animal Science Building Knoxville, Tenn.	Feb. 14-15
Mid-South Stocker Conference	Paris Landing State Park Paris, Tenn.	Feb. 18-19
Block and Bridle Roundup	Brehm Animal Science Arena Knoxville, Tenn.	March 1
UT Junior Bull Test Station Sale	Middle Tennessee AgResearch and Education Center Spring Hill, Tenn.	March 6
Value-Added Beef Conference	Manchester-Coffee County Conference Center Manchester, Tenn.	March 18-19
Knoxville Spring Junior Cattle Expo	Tennessee Valley Fairgrounds Knoxville, Tenn.	April 25-26
Sheep Conference	Hyder-Burks Pavilion Cookeville, Tenn.	May 30-31
Livestock Judging	Brehm Animal Science Arena Knoxville, Tenn.	June 3
4-H Academic Conference	University of Tennessee Knoxville, Tenn.	June 9-13
State 4-H Horse Championships	National Walking Horse Celebration Shelbyville, Tenn.	June 23-28
Tennessee Junior Livestock Exposition Beef Events	Tennessee Livestock Center Murfreesboro, Tenn.	July 7-9
Tennessee Junior Livestock Exposition Sheep Events	Hyder-Burks Pavilion Cookeville, Tenn.	July 14-17
4-H Roundup	University of Tennessee at Martin Martin, Tenn.	July 21-24
Volunteer Classic Livestock Judging Camp	Brehm Animal Science Building Knoxville, Tenn.	July 25-27
Southern Regional 4-H Horse Championships	Hunt Horse Complex Raleigh, N.C.	July 28-Aug. 1
Rocky Top Classic	Brehm Animal Science Arena Knoxville, Tenn.	Dec. 6
UT Beef and Forage Center Update	UT Plant and Pathology Building Rooms 156-157 Knoxville, Tenn.	Dec. 17

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Save the Date!

B&B Roundup 2014

March 1, 2014
Brehm Animal Science Arena

**It's going to be a fun-filled day
of livestock, dairy and meats
judging!**



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