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Serving Our Communities

UTIA helps its many communities in a variety of ways. From providing 4-H youth development programs to helping farmers learn how to more efficiently direct market their products, the people and programs of UTIA have powerful effects.
Lone Oaks Farm

Described as one of the most beautiful and diverse pieces of land in Tennessee, Lone Oaks Farm is the site for the University of Tennessee Institute of Agriculture’s newest 4-H camp. The property will also provide a pristine location for adult education, conferences, and special events.

ON THE COVER
GREETINGS
FROM OUR CHANCELLOR

Welcome, friends, to the new University of Tennessee Institute of Agriculture magazine! This fresh new look is very reflective of the work being done at UTIA—forward thinking, exciting, and relevant. Whether it’s our faculty, staff, or our students past and present, our magazine will celebrate the stories of their impacts and accomplishments on behalf of our communities in Tennessee and beyond.

A great example of our outreach is showcased in the cover story on Lone Oaks, the new 4-H Camp and Conference Center in West Tennessee. The property, located in the heart of Hardeman County, was officially purchased by UT in December. See page 15 to learn about the plans underway to build one of the most comprehensive learning programs and conference facilities in the country.

Lone Oaks, along with our entire 4-H program, is just one of the many ways we are Serving Our Communities—one of the four pillars that make up the mission of UTIA. You’ll see this throughout the new Land, Life & Science. Let us know what you think!

In friendship,

Larry R. Arrington
Chancellor

P.S. Please follow me on Twitter!
@UTIACHancellor
Last fall, 1,472 undergraduates enrolled in CASNR—almost double the size of the student body fifteen years ago. Associate Dean John Stier credits a hot job market for the boom. “Right now there are essentially two jobs open for every graduate, and data published in 2015 indicates agriculture is one of the top five highest-earning degree programs,” Stier says.

According to Stier, the job market isn’t the only factor. “We appeal to students because of our strong focus on science and environmental resources. The challenge of feeding a world population of 9 billion by 2050 is also very appealing to prospective students as is the wealth of hands-on experiences we offer throughout our programs of study.”
TV host Erick Baker (BS journalism ’01) returned to campus with a crew from TWRA’s Tennessee Uncharted program on PBS to explore UTIA and UT, including a visit to Ag Day. Watch the program at tiny.utk.edu/ag/TennUC.

One man keeps farm families in business, another protects human health through veterinary care, and the other has been raising crops and livestock for more than half a century. UTIA recognized all three at its Ag Day celebration last fall.

David Lynn (BS agricultural education ’74, MS administration and supervision ’78) was honored with the Meritorious Service Award for his tremendous impacts at UTIA. As senior vice president for financial services for Farm Credit Mid-America, Lynn led in the establishment of CASNR’s premier Farm Credit Scholars program and was pivotal in Farm Credit Mid-America’s support for the Lone Oaks 4-H Camp and Conference Center. Read about this exciting new Center on page 14.

The Institute celebrated veterinarian Dr. Reid Harvey (DVM and MS public health ’10) with its Horizon Award for his early career accomplishments and leadership potential.

Finally, UTIA recognized George Clay of Pelham in Grundy County for his many achievements as UT Extension’s 2015 Tennessee Farmer of the Year. Learn more about these three outstanding individuals at tiny.utk.edu/ag/AgDayAwards.

One of the top magazines serving the beef cattle industry profiled our Animal Science program on its December cover. American Cattlemen also chose the program as the focus of its annual college issue last April. You can read both articles at americancattlemen.com.

Department head Neal Schrick hopes the exposure will recruit graduate students. With a record 600 students, Animal Science’s undergraduate program is going strong. Attracting larger numbers of graduate students is a priority to meet robust industry demand.
Last summer, 271 senior high 4-H’ers from across the state convened at UT Knoxville for the ninety-second Tennessee State 4-H Round Up and All Star Conference. While on campus, the youth sampled college life; learned about career opportunities open to them through university study; and showcased the projects they had worked on all year in communication, technology, livestock, crop production, and other varied fields.

“4-H in Tennessee has never been better or stronger,” says Justin Crowe, UT Extension specialist, 4-H Youth Development.

At the Institute, the 4-H program has been combined with the Department of Agricultural Leadership, Education and Communications. The merger teams CASNR faculty with Extension specialists and agents in powerful ways that will serve youth from elementary school to college through UTIA teaching and outreach, as well as research. Richard Clark, a lifelong educator with experience at multiple land-grant institutions, is the new assistant dean and head of the combined department.

Praised by the White House for his contributions to sustainable agriculture, UTIA researcher Don Tyler has the longest-running no-till cotton evaluations in the nation.

The White House has recognized Tyler as a Champion of Change. He is one of twelve Americans who were celebrated in October for doing extraordinary things that inspire and empower members of their communities. The soil management researcher and professor in the Department of Biosystems Engineering and Soil Science was cited for leadership and innovation in agricultural production and education of no-tillage cropping systems.

These systems have reduced soil erosion, enhanced soil carbon storage, and increased soil biodiversity. Tyler is considered one of the leaders of the no-till farming movement in the Southeast. Today, no-till practices are being used on more than 70 percent of Tennessee’s corn, cotton, and soybean acres.

“I am happy and humbled to receive this distinction,” he says. “I think it represents a team effort on the part of a number of UTIA researchers, Extension agents, specialists, and other government agencies that were successful in advancing the adoption of no-till agriculture.”

Tyler is based at the West Tennessee AgResearch and Education Center in Jackson. That Center and the AgResearch Center in Milan are pivotal to UTIA’s no-till impacts and successes.
When Athan Sterges was a distinguished soil sciences professor at the Institute from 1948 to 1962, the innovations that will soon exist in a new lab named in his honor weren't even dreamed of in science fiction. Today, though, the Athan J. Sterges Biosystems Engineering and Soil Science Learning and Innovation Hub is one step closer to reality thanks in part to the support of his family, who at Ag Day unveiled a plaque dedicating the lab in his honor.

“The Sterges Hub will enable our undergraduate and graduate students to conduct analysis and design systems with actual field data,” says professor John Wilkerson, who pioneered the idea of the hub. “That real-world experience is going to translate into great job opportunities and strong careers ahead.”

Alumni are teaming up on the project. Visit bioengr.ag.utk.edu/hub to learn more. To contribute, contact Tom Looney, director of advancement, at 865-974-8622 or tlooney@utfi.org.

Three Decades of Care for Iconic Clydesdales

The next time you catch a glimpse of Budweiser’s famous Clydesdales, give a thought to the UT College of Veterinary Medicine. Because behind each of those beloved animal athletes is top-notch care by the College. Three decades of it, in fact, that trace back to Knoxville’s 1982 World’s Fair.

Bob Brandon, former marketing director for Anheuser-Busch Companies and manager of the Clydesdales, decided to bring a pair of the horses to the Fair to pull in visitors to the AB pavilion. While in town, it occurred to him that the Clydesdales needed a more formalized regimen of care than they had been receiving. He approached UT, and the partnership was born.

Brandon recently returned to campus to give the College a replica eight-horse hitch to commemorate CVM’s thirty-three years of care.

Today Dr. Steve Adair provides the protocol for the College’s National Health and Preventative Medicine Program, which augments the existing veterinary care program for the Clydesdale operation and addresses any unusual medical issues that occur with the horses.

Futuristic Lab to Launch BESS Students’ Careers

Family of the late Professor Athan Sterges unveiled a plaque at Ag Day dedicating a dynamic student learning hub in his honor. During his career with UTIA, Sterges contributed significantly to the advancement of soil science.
A DISTINGUISHED FELLOW

Neal Stewart, a professor in the Department of Plant Sciences and Ivan Racheff Chair of Excellence in Plant Molecular Genetics, has been named a Fellow of the American Association for the Advancement of Science (AAAS). Election as an AAAS Fellow is an honor bestowed upon association members by their peers. Stewart was elected for his distinguished contributions to the field of plant molecular genetics, particularly bioenergy and biotechnology. At UTIA, his research spans these areas with focus on agricultural biotechnology and biotechnology risk assessment.

Learn more about Stewart and research conducted in his lab at plantsciences.utk.edu/stewart.htm.

BREWING A BIG IDEA

Excitement and enticing aromas filled the conference room in the Department of Agricultural and Resource Economics when professors and students gathered to sample free trade coffee from Blake Thomas (MS agricultural economics ’12). Thomas founded Tiny House Coffee, tinyhousecoffeeroasters.com, to improve market opportunities for smallholder coffee growers in Nicaragua.

“Blake’s work highlights two focus areas for the university and the department: entrepreneurship and the pursuit of international opportunities,” says Thomas’ former major professor Chris Clark. “His work to improve the lives of others is a source of pride for the Department and all who have worked with Blake.” Read more of his story at tiny.utk.edu/ag/tinyhouse.
FarmSpec entrepreneurs Austin Scott, Daniel Wiggins, and Shawn Butler have bright ideas to help farmers save money. The trio competed as finalists in the Farm Bureau Rural Entrepreneurship Challenge in January, where they won the People’s Choice Award in a “Shark Tank” playoff at the American Farm Bureau Federation’s ninety-seventh annual convention.

The Challenge is a national competition that judges the merit of ideas for food and agricultural businesses by entrepreneurs committed to helping rural communities.

Butler and Scott are master’s students at UT Knoxville. Wiggins is a student at UT Martin. Their company, Farm Specific Technology (FarmSpec), has developed a patent pending technology that will more effectively terminate cover crops, saving farmers time and expense.

Already their winning idea, a Flex Roller Crimper, caught the attention of the UT Research Foundation, which awarded it $5,000 in a UT pitch competition that advances the most promising student ideas for new entrepreneurial businesses.

Watch a video of the FarmSpec team pitching their idea at tiny.utk.edu/ag/crimper.
picture the swoosh on a Nike shoe. The bright red of a Coke can. An Apple with a missing bite. When you see these instantly familiar logos, you’re seeing the power of a brand. They speak to who an organization is and what you can expect it to deliver.

Building a consistent visual brand and a brand promise is how a company creates a strong and unified platform from which to showcase its accomplishments. That’s why the UT Institute of Agriculture has undergone a complete rebranding. Here’s a quick look at what we’ve accomplished.

**VISUAL BRAND IDENTITY**

The key element of a visual identity is the logo. Over the years, UTIA’s visual identity had become very fragmented, so the Institute’s Marketing and Communications team took on the challenge to refocus the organization’s visual footprint. The team spent countless hours during a year-long process of building consensus throughout the Institute and developing numerous designs for discussion.

In a complex organization like UTIA, you can imagine the challenge in developing a look that meets the multitude of needs, yet is consistent, clean, and recognizable. We chose to keep the iconic UT symbol because it best represents our statewide presence, and incorporated it into our overall organizational logo, as well as logos for our units, departments, and programs. The result is a modern take on our traditional identity, which has quickly been adopted.

**BRAND PROMISE**

Our brand promise is a reflection of who we are and what we do—it’s what we hope our audience will remember us for. In thinking about the many ways UTIA touches the lives of Tennesseans and beyond through its mission of research, teaching, and extension, we realized what we provide are Real. Life. Solutions. A simple, memorable way of showing the breadth of what we do on a daily basis.

**JOIN THE MOVEMENT**

To better serve our internal audience across the state, our team developed a marketing toolkit. As we identify and respond to new needs, this evolving resource will help with everything from the creation of letterhead and business cards, to templates for newsletters and brochures.

For our alumni and friends, we hope you will also join us in sharing our brand, Real. Life. Solutions. Follow the Institute and our many units on Facebook, Twitter, Instagram, and YouTube where we show how UTIA delivers these solutions. And help us tell the story of our successes and impacts!
Working to educate the 8th generation here about #tnmagicmoments. Lives made possible thru mAGic.

Good morning Morgan Hall! #UTIA #tnmagicmoments
Every day through social media we share the moments that make up our lives. Some are simple, others extraordinary. So here's something to think about: would these moments be possible without agriculture? Picture your child’s first baseball game without the wooden bat or leather glove. A Nashville song without a guitar. Even a football game without the turf or ball. Thanks to agriculture, we get to experience these “magic moments” every day. This is the heart of a new grassroots campaign we’d love for you to join.

The goal of TN Magic Moments is to raise awareness about the importance of agriculture in all our lives—no matter where you live, who you are, or what you do. How can you be a part of this exciting campaign? It's easy!

• Follow TN Magic Moments on Facebook, Twitter, Instagram, and YouTube.
• Share your #tnmagicmoments on social media.
• Become a TN Magic Moments speaker.
• Visit the TN Magic Moments website at tnmagicmoments.com for more information.
A PLACE LIKE NO OTHER

LONE OAKS FARM BRINGS LEARNING TO LIFE

Peaceful waterfalls, acres of land to explore, opportunities for horseback riding and other camp activities, and miles and miles of bucolic scenery—what child or adult would not want to experience a place like this? Originally owned and developed by Scott and Kathy Ledbetter, Lone Oaks Farm in Hardeman County has become West Tennessee’s new 4-H Camp and Conference Center for the University of Tennessee Institute of Agriculture.

Rising above many possible choices because of its diverse mixture of pasture, woodlands, and water; its national reputation as a farm and purebred Angus operation; and its commitment to land conservation, this 2,000-acre gem has virtually all of the resources in place to serve as a state-of-the-art 4-H camp and location for special events such as conferences and even weddings.

According to UT Extension Dean Tim Cross, “It is an excellent venue in which to teach youth about agriculture, natural resources, and other STEM-related subjects.” UTIA Chancellor Larry Arrington adds, “The 4-H Camp and Conference Center will be located in West Tennessee, but will be available to anyone looking for a unique educational experience. It will have a tremendous educational and economic impact.”

Specifically, roads, fencing, and utilities are already in place. Additionally, a large number of facilities and natural areas exist, among them a livestock sale barn, which seats more than 300 for camp gatherings; a commercial-scale kitchen capable of serving more than 300 guests; housing that can be used for conference accommodations; many lakes and ponds for natural resource education and recreation; agriculture demonstration fields; and livestock and equestrian buildings equipped for hosting educational opportunities and other events.

UTIA is working diligently to develop what is sure to become a nationally recognized center of education and recreation, impacting the lives of thousands of Tennesseans for years to come.
For Lone Oaks Farm 4-H Camp and Conference Center to be a success, it requires the assistance of those who believe in the mission of educating youth and developing leaders in agriculture.

Farm Credit celebrates its hundredth birthday this year and within the story of the company is a rich history of supporting agricultural leadership—specifically through local 4-H programs. The development of Lone Oaks Farm 4-H Camp and Conference Center is no different.

“I don’t think there has ever been a time in Farm Credit history where we are more committed to advancing agriculture in communities than we are today,” says Mark Wilson, area vice president for Farm Credit Mid-America.

The company has provided two major gifts for Lone Oaks Farm: general purpose funding for greatest needs and support to construct a headquarters building at the leadership center.

Through its investments, Farm Credit hopes to be a part of the most progressive agricultural education and leadership training programs in the nation.

“This is an opportunity to develop something unique and long lasting that will have a positive impact on the state as a whole and specifically on rural youth,” Wilson says.

Farm Credit sees a partnership with 4-H as a natural fit. The company, which is a cooperative owned by its customer stockholders that provides a source of credit and service to farmers and rural residents, has many former 4-H participants on staff—many of whom still volunteer with the youth organization. Wilson says that Lone Oaks Farm is special because of the opportunity for broad agricultural education and hands-on experience. The 2,000-acre working farm has the capability of producing agricultural products seen in all parts of the state.

“We are very pleased to be a part of this initiative. Farm Credit Mid-America has been for a long time—and plans to continue to be—a strong partner of 4-H.”

Although the purchase of Lone Oaks came with numerous buildings and facilities, the University of Tennessee needs additional funding to complete the planned 4-H Camp and Conference Center. For more information about the Lone Oaks development and how you can get involved, visit AdvanceUTIA.com/loneoaks.
A DREAM REALIZED
THE HISTORY OF LONE OAKS

Kathy and Scott Ledbetter purchased the first of thirty separate parcels of land in Hardeman County in West Tennessee nearly seventeen years ago.

"From the beginning we wanted to create a place where our families, friends, and business associates could come together, be outdoors with nature, and enjoy the rich rural environment of Hardeman County," says Scott Ledbetter.

The couple slowly acquired more parcels of land to end up with a pristine piece of wilderness filled with running creeks, waterfalls, rolling hills, open pastures, lakes, ponds, and dense hardwood and pine forests—all waiting to be discovered and enjoyed.

The Ledbetters admit they sought out the most talented, nationally recognized building and landscape architects to cut the nearly fifteen miles of road, fifteen miles of trail, and construct residences, barns, and other structures. Roads do not obstruct views and the buildings evoke a sense of belonging.

“One of our favorite compliments—at least we think of it as a compliment—has been that the buildings appear to have been here for a hundred years.”

The costs associated with transforming Lone Oaks into a personal retreat for the family, as well as friends and invited guests, were justified through the efforts to make Lone Oaks Farm a viable agricultural business. Their paradise was also a working farm with registered Black Angus cattle, Bermuda grass hay for horses and cattle, and gently harvested timber.

“Our dream for Lone Oaks has been multiplied a hundred-fold by the University of Tennessee’s vision for the future of Lone Oaks Farm,” Scott says. “Where initially we created a place for a few, the University’s plan will make it available for thousands of children and adults to enjoy and learn and grow every year.”

The Ledbetters are open about their hope that the farm they built will grow into a legacy of a nationally recognized 4-H center. “We are confident that the bones are there, but it is incumbent on the University’s leadership to strive for a level of excellence that never accepts mediocrity,” Scott says.

The family has plans to remain involved in the new Lone Oaks 4-H Camp and Conference Center. “There will never be two people more interested and dedicated to the success of Lone Oaks Farm than we are today,” says Scott. “We are proud of Lone Oaks, and we know that the natural evolution of UT-Lone Oaks will only strengthen that pride in the future.”
LISTENING ACROSS THE STATE

When Chancellor Larry Arrington and his executive team began to think about a strategic plan for the Institute of Agriculture, they went straight to the source.

“We knew we needed a way to get feedback from our constituents, the people we are here to serve,” says Arrington. “And we quickly determined it was necessary to hear the issues and concerns from all three sections of the state.”

What came out of that plan was the formation of three Regional Advisory Councils (RAC) made up of community leaders, business people, producers, veterinarians, and agriculturists in East, Middle, and West Tennessee. These groups meet regularly with UTIA administration to share issues, concerns, and new ideas.

“I can reflect on past meetings and see council members’ suggestions incorporated into programs, projects, and endeavors such as the Governor's Initiative for Agriculture,” says Middle Tennessee RAC Chairman Joe Huffine. “We had the opportunity to be part of the final plan. There is a wide mix of council members, but we all share one common element—a strong belief in agriculture.”

The RAC members are of great value to UTIA not only as information sources, but also as sounding boards for new programs and ideas.

“We have found these groups to be invaluable to us as we get ready to initiate new projects related to agriculture, families, and our youth,” says Arrington. “Our members are not afraid to tell us if we’re about to make a mistake or share ideas to make the project or program even better.”

If you are interested in learning more about how to become involved with the RAC, please contact the Chancellor’s office at 865-974-7342.

For a complete list of members, visit ag.tennessee.edu/racs.

‘It is my honor to serve on the Regional Advisory Council which interacts with UTIA department heads and Chancellor Arrington to bring forth ideas and issues affecting Tennessee agriculture. It brings awareness to a statewide team that can then focus on the possibility of future advancement in research, development, and financial consideration.’

JOHN CHARLES WILSON
WESTERN REGION CHAIR
Shelby County
'As RAC members, we have the opportunity to communicate with the highest level of management of the UT Institute of Agriculture and see the results of our interaction. I consider working with this council to be a rewarding and gratifying experience.'

**DAVE FUGATE**
**EASTERN REGION CHAIR**
Blount County

'I receive value from my participation on the Regional Advisory Council from three distinct areas: communication, input, and action. It is more important than ever for the University to openly discuss its focus, successes, and opportunities and keep its stakeholders informed. The Council provides another avenue of information sharing and allows members to give input and direction for an ever-changing agriculture canvas.'

**JOE HUFFINE**
**MIDDLE REGION CHAIR**
Rutherford County
Our AgResearch unit and the Department of Food Science and Technology have introduced a new product for sale called All Vol Cheese. Four flavors are available for purchase—Checkerboard Mild Cheddar, Game Day Sharp Cheddar, Smokey’s Smoked Gouda, and Torchbearer Jalapeño Cheddar. The blocks are 10 ounces each.

All Vol Cheese is available online at tiny.utk.edu/cheese. People on campus can buy from students at fundraisers and from the Department. Proceeds will benefit student and research programs.

“Our cheese line is a joint effort between the Department and a new public-private entrepreneurial program we’ve established called ‘AgInnovations,’” says AgResearch Dean Bill Brown. “Our goal is to help faculty, researchers, and students turn their ideas into new businesses, whether internal or external to the University.”

UTIA partnered with Sweetwater Valley Farm to develop All Vol Cheese. The product is made at the company’s site in Loudon County—where FST student interns have learned cheesemaking from start to finish, from raising cows, to turning milk into cheese, to how it’s packaged and sold to the market. Along the way, they’ve also gained insight into manufacturing and regulatory issues. All excellent experience, department head Mark Morgan says, for future employment in the industry.

NEW AgInNOVATIONS, NEW VENTURES

Accelerating new technologies and ideas like All Vol Cheese from lab to market is the goal of AgInnovations, a program launched by UTIA’s AgResearch unit. Through AgInnovations, an entrepreneur pairs with inventors during the development process to identify the value an idea or technology may hold for targeted customers, its possible financial viability, and its manufacturing and distribution options. The increased communication between researchers and industry is expected to heighten market-directed research, with potential for new grant opportunities and commercial products. AgInnovations is a result of several factors, including UT’s desire to be an economic driver for Tennessee and a challenge from UT President Joe DiPietro for the University to become more entrepreneurial in finding revenue sources.
SERVING OUR COMMUNITIES

Whether it’s a program, a class, or an opportunity to learn from one of our experts, we’re providing real-life solutions to improve lives in Tennessee and beyond.
When a UT Extension agent is effective in his or her work at the county level, there’s a statewide impact.

UT Extension’s estimated economic impact in 2015 was more than $511 million. For every one dollar in public funds invested in Extension, an estimated $8.25 is returned to the people of Tennessee. That includes increased revenue and savings and one-time capital purchases.

UT Extension programs and education also make Tennesseans’ lives more secure. In 2015, an estimated 6,222 jobs were created or maintained through Extension impacts. In the same year, Extension agents and specialists and the volunteers they manage provided assistance through 4,477,016 direct contacts with the state’s citizens through calls or visits to county offices, or in Extension programs, classes, and other forms of outreach.

“UT Extension is committed to increasing the economic prosperity, improving the environmental sustainability, and enhancing the well-being of Tennesseans in rural and urban communities throughout the state,” says Tim Cross, dean of UT Extension. “The education our agents and specialists provide leads to positive impacts in all these areas.”

The Institute’s statewide network of ten UT AgResearch and Education Centers supports much of the research conducted by UTIA scientists. The work that takes place at the AgResearch Centers impacts the health of local economies—most significantly through knowledge diffused to producers at UTIA’s annual field days, where AgResearch scientists and Extension agents and specialists present research findings to producers that help them improve the viability, efficiency, and profitability of their operations.

“When farmers have more disposable income it creates a ripple effect on jobs in other industries as they spend that money in local businesses,” says Margot Fosnes, president and chief economic development officer of the Robertson County Chamber of Commerce. Robertson County is home to the Highland Rim AgResearch and Education Center. “So through servicing the agriculture sector, the Centers in rural areas become a significant economic driver for their communities.”

Other Center impacts include a 2008 finding that for every dollar invested, approximately two dollars are returned to their local economies. Money spent by the Centers to purchase goods and services, when combined with wage and salary expenditures, generates approximately 125 jobs statewide. The highly skilled workers employed by AgResearch Centers are another boost to communities.

“Highland Rim and other AgResearch Centers keep highly trained and educated employees in the local workforce, which can be an incentive for other industries to move here. That’s one way we promote our area,” Fosnes says.

As a land-grant institution, UT has the mission to advance the quality of life for all citizens. It’s the Institute’s core mission, as well. We’re proud of how the work of UTIA faculty and staff makes an impact county by county throughout Tennessee.
UT Extension beef cattle specialist Justin Rhinehart shares his expertise with producers during a UTIA field day at the Highland Rim AgResearch and Education Center. The Institute’s overall economic impact in Tennessee can be seen in more affordable food, cost-reducing technology, and increased disposable income for producers.

For the full story on these facts, visit tiny.utk.edu/UTIAimpacts

135% growth in the number of Tennessee farmers markets

641,287 hours volunteered statewide by 4-H All Stars in 2015

12,000 graduates to date of the TN Master Beef Producer Program
When it comes to teaching kids how to avoid alcohol, tobacco, and drugs, Tennessee children need look no further than a 4-H program called “Health Rocks!” More than 10,000 children have benefited to date.

In five counties, sixteen cities, and four towns in East Tennessee, faculty in CASNR and elsewhere in UT Knoxville are assisting communities in building a shared direction for the future by addressing challenges affecting jobs, housing, transportation, a clean environment, and community health. UT’s role is to assist in the development of research, critical inquiry, planning, and design strategies that accommodate an anticipated population growth of 45 percent through 2040.

These are just two examples of the many outreach efforts offered by UTIA and UT Knoxville. This strong partnership and collaboration with the community was recognized with the prestigious 2015 Carnegie Community Engagement Classification.

In addition, UT was named as part of an elite group of just fifty-two universities in the “very high intensity” research classification to have earned the designation.

“This designation recognizes the Institute of Agriculture’s strong commitment to the land-grant mission, which is carried out daily by our faculty and staff,” says UTIA Chancellor Larry Arrington. “We provide real-life solutions to our communities through teaching and research, and especially through the impact of our Extension programs offered in all ninety-five counties in Tennessee.”

The Carnegie Foundation for the Advancement of Teaching and the New England Resource Center for Higher Education administer the program, which acknowledges universities and colleges for their commitment to strengthening the bond between campus and community.

Community engagement is a key part of our nation’s evolving higher education agenda, and the new designation will help advance UT Knoxville’s quest to become a Top 25 public research university.

The UT Knoxville Office of Research and Engagement coordinated the joint application submitted from the Knoxville campus and the Institute. Working with a broad-based advisory committee of campus and community representatives, Elizabeth Burman, director of community engagement and outreach, and Tim Cross, dean of UT Extension, chronicled UT’s commitment to working for the greater community.

To achieve the designation, campuses must document their collaborations with local, regional, state, national, and global organizations “to enrich scholarship, research, and creative activity; enhance curriculum, teaching, and learning; prepare educated, engaged citizens; strengthen democratic values and civic responsibility; address critical societal issues; and contribute to the public good.”

The Carnegie classification is valid through 2025, at which point the University must apply for reclassification by demonstrating its continued growth in community engagement.
‘TENNESSEE HAS THE LAND CAPACITY TO SUPPORT BEEF HERD EXPANSION AND TO RECAPTURE OUR SHARE OF THE U.S. MARKET.’

– JULIUS JOHNSON (BS ANIMAL SCIENCE ’70)
TENNESSEE COMMISSIONER OF AGRICULTURE

168,725
Master Gardener Volunteer hours, valued at $3.4 million (2015)

$4.6 MILLION
invested in research on climate change in Tennessee’s river basins

114,813
youth involved in UT Extension leadership programs in 2015

For the full story on these facts, visit tiny.utk.edu/UTIAimpacts
More than 800 children in nine schools in Tennessee are staying after school to attend UT Extension early learning programs. And they’re having fun doing it.

Staying after school was once thought of as an “opportunity” to improve a grade or behavior, but today’s after-school programs provide something more. Over the last ten years, Matthew Devereaux, a professor and child development specialist with UT Extension’s Department of Family and Consumer Sciences, and others within FCS have secured more than $4 million to develop and administer quality after-school programs in Tennessee that give students hands-on experiences that deepen their classroom learning.

“Our philosophy is to provide kids hands-on, experiential activities where they learn by doing,” says Devereaux. The curricula focus on reading, science, math, technology, health, homework, socialization, and leadership. The program targets children (K-8) and young adults who are struggling academically and emotionally.

Schools taking part are located all across Tennessee in Campbell, Dickson, Hickman, Madison, Robertson, Scott, Sumner, Unicoi, and Wilson counties.

Among the program’s accomplishments is an increase in participants’ overall GPA by one letter grade or more in math, science, and reading/language arts over the course of the school year, as compared to nonparticipants. UT Extension Assistant Dean of FCS Laura Stephenson says the program’s success will assist the state of Tennessee in its recently announced goal of extending each citizen’s education beyond high school.

Introduced by Governor Bill Haslam in 2014 and backed by the legislature and a network of industry leaders, Tennessee’s “Drive to 55” initiative (driveto55.org) is committed to increasing the number of Tennesseans with college degrees or technical school certificates to 55 percent by the year 2025. The popular “Tennessee Promise” is the signature component of the initiative. Through it, every graduating high school senior in the state receives funding for two years of tuition and fees for either a community college or a college of applied technology. To qualify, students must complete eight hours of community service for each semester funded.
‘THE EXPERIENCE . . . SERVED AS A GATEWAY TO A LONG-TERM RESEARCH COLLABORATION WITH SOUTH AFRICAN COLLEAGUES AND OPENED DOORS FOR FUTURE STUDENT EXCHANGES BETWEEN UT AND UNISA.’

– DR. AGRICOLA ODOI, ASSOCIATE PROFESSOR IN BIOMEDICAL & DIAGNOSTIC SCIENCES AT UTCVM

Hands-on learning provides valuable experience for student interns at the East Tennessee AgResearch and Education Center’s Organic Crops Unit in Knoxville.

2,500 entries each year in the “Piggy Bank Pageant”

100+ senior participants in UT Extension’s “Tech Savvy” Program in Robertson County

For the full story on these facts, visit tiny.utk.edu/UTIAimpacts
Helping our communities discover solutions to health issues is a proud tradition of University of Tennessee Extension. This is happening once again in four rural West Tennessee counties: Haywood, Humphreys, Lake, and Lauderdale. There UT Extension and the Centers for Disease Control and Prevention have united on a first-ever direct partnership to address an obesity epidemic. The pioneering program involves teams of local citizens working as agents of change in their communities.

The three-year project, known as Community Coalitions for Change (C3), is targeting community-based health improvements at the grassroots level through coalitions of citizens. Partners guiding the efforts include Tennessee State University, Tennessee 4-H, public health departments, the UT Center for Transportation Research, and many others.

Last year, C3 coalitions and the UT Extension Family and Consumer Sciences (FCS) team identified and mapped health-related resources in each county. Local citizens then prioritized areas for improvement and identified research-based solutions to drive the changes.

This year, the coalitions are improving how people access and use healthy foods and venues for physical activities, while helping faith-based organizations and worksites introduce signage and healthier food and drink options in potlucks, vending machines, and at office breaks and functions. At the same time, FCS agents and program assistants are hard at work educating individuals and families. Key to these efforts are C3 outreach and impacts at grocery and corner stores, schools, senior centers, local and state parks, and many other agencies and organizations that are central to the daily lives of residents.

In year three, emphasis will be on sustainability, with Extension’s team coaching communities on grant writing skills to enable them to continue, and expand, the momentum of locally based health efforts in the years ahead.

“We’re not looking for obesity rates to drop within the next year or two. We’re really looking for obesity rates to drop and stay down over the next ten, twenty, thirty, or forty years. We’re looking for generational change,” says UT Family and Consumer Sciences specialist Heather S. Wallace, a three-time UT alum who leads the project.

Wallace says the key to making changes that count for the long-term is to think about our day-to-day activities in a connected way.

“Everything from managing your stress and time, to what grocery store you shop at, to how and when you pick up your children from school impacts your well-being. As family and consumer scientists, we recognize this and approach issues like obesity from a holistic point of view. We understand it is not just about what we put in our mouths, it’s about how we think and feel and behave as individuals, within families, and as a community. People succeed in making those changes when we engage in all those dimensions, which is what this project is about.”

Now halfway through the grant period, the coalitions have reached 75,000 residents in the four counties. That number will grow exponentially this year through the many outreach activities underway.
‘EBOLA IS THE PERFECT EXAMPLE OF WHAT HAPPENS WHEN AN IMBALANCE AMONG HUMANS, ANIMALS, AND THE ECOSYSTEM OCCURS.’

– DR. MARCY SOUZA, ASSOCIATE PROFESSOR & DIRECTOR OF VETERINARY PUBLIC HEALTH AT UTCVM

EVERY YEAR, UTCVM CARES FOR MORE THAN

- **14,200** dogs
- **1,400** birds
- **1,000** goats/pigs/sheep
- **2,300** cats
- **7,800** cattle
- **4,300** horses

For the full story on these facts, visit tiny.utk.edu/UTIAimpacts
IN PROFILE

Elizabeth Strand, the founding director of the groundbreaking Veterinary Social Work program at the UT College of Veterinary Medicine, is a licensed clinical social worker, experienced family therapist, grief recovery specialist, and a Mindfulness-Based Stress Reduction teacher.
WHERE DID VETERINARY SOCIAL WORK COME FROM?

It came from the practice of mental health professionals helping clients and veterinarians deal with the human side of things: UT gave it a name, carved out what it meant, and professionalized it. We take care of the human side of veterinary medicine in primarily four areas: the link between human-animal violence, animal-assisted interactions, grief and bereavement, and compassion fatigue and conflict management.

WHAT FASCINATES YOU ABOUT YOUR WORK?

People love veterinarians. I believe in large part what makes veterinarians so lovable is that they care for animals, and people love animals for all sorts of reasons; we rely on them for companionship and food, and it’s a great honor to care for that resource. I’m fascinated with helping veterinarians realize that they don’t just care for great creatures, but they are great creatures and are allowed and expected to take care of themselves, too. THAT is a non-negotiable as far as I’m concerned.

WHAT ARE YOU MOST PROUD OF?

In 2015, the Association of American Veterinary Medical Colleges (AAVMC) hosted its annual Veterinary Health and Wellness Summit in conjunction with our International Veterinary Social Work Summit in Knoxville. This was one of the first times we had an interprofessional conference between mental health and veterinary medicine professions. People are looking to UT to learn about how to retool their social work and other mental health professional careers so they can be of service to veterinarians. I see UT becoming the hub of the interprofessional practice between the professions, and the summit was an excellent opportunity for us to be visible in this role.

HOW DOES VSW SERVE UTIA?

We hold courses in mindfulness-based stress reduction (MBSR) and grief recovery. We offer a robust pet loss support program and offer free counseling sessions individually or in a group format. We host four pet memorial celebrations each year. We are here to support folks in our Institute who have human problems and/or needs related to animal issues. Anyone can access our service.

WHAT HAS SURPRISED YOU MOST SINCE FOUNDING VSW?

I had no idea how much I would deal with suicide. I thought going into VSW would be easier than being in a level 5 residential facility for kids with really serious mental health issues. I didn’t know I would hear a pet loss client say, “I’m going to kill myself,” and I definitely didn’t know there would come a time when we would dedicate so much research effort into understanding the suicide rate among veterinarians. I feel very passionate about doing our part to change that for our students and for the profession of veterinary medicine. That is why Dean Thompson has charged us with rolling out a new course for veterinary students to help them practice emotional, physical, and business wellness and success skills.

We want to give, at the educational level, everything they need to remain happy and resilient in their practice once they graduate.

Elizabeth Strand was a finalist for the 2016 President’s Award—the highest honor UT presents to employees.
CLASS ACTS

At the UT Institute of Agriculture, we are committed to providing students with exceptional learning experiences.

These three students—undergraduates in the Departments of Plant Sciences and Biosystems Engineering and Soil Science, and a graduate student in the College of Veterinary Medicine—exemplify our commitment to our pillars, or core values, of academic excellence and hands-on learning.

TAYLOR WILLIAMS

The Baseball Game
No Fans Saw Played

For Taylor, a UT Knoxville senior in the turfgrass science and management concentration, interning with the 2015 Baltimore Orioles grounds crew was a unique experience—even before the Baltimore riots started.

“It was a good experience to see more than just the grass side of the industry. To see how the players, the coaches, and grounds crew all interacted together on the major league level,” he says. “It opened my eyes to see what it takes to be a major league baseball groundskeeper.”

When city unrest caused an Orioles game to be played without fans, the internship became a one-of-a-kind experience. “It was surreal. I’m lucky to say I was one of twenty-five people to see that game in person.”

Turfgrass science internships, both in the U.S. and abroad, offer the chance for students to live the job they are studying. Whether it’s with the world’s leading soccer, tennis, golf, or football venues, the opportunities are endless.

Taylor has this advice for other students in his program:

“Don’t take the first internship you find. Look around and find the one that fits you best,” he says. “Get to know the people in charge before you decide and make sure their interests are similar to yours. You have a leg up on other students because you can take an internship in March, so take your time to decide. This is your chance to go somewhere you want to, so take advantage of it.”
Working to solve complex environmental issues is high on rising junior Emine Fidan’s to-do list. While at the Governor’s School, Emine designed an environmental waste site to help solve groundwater pollution as a class project. It was that project that sparked her passion to be involved in finding solutions to environmental problems firsthand.

“I specifically chose UT Knoxville because of its biosystems engineering program,” says Emine. “There are so many opportunities here on the ag campus and so many hands-on things that you can do.”

As a student, Emine has taken full advantage of those opportunities. In fact, she spent last summer as a congressional intern in Washington, D.C.

“I hope in the future that I can aid in solving current agricultural and environmental concerns, and I believe that my internship was a start to accomplishing this goal,” she says.

CASNR alum, biosystems engineer, and perhaps future congresswoman? We like the sound of that!

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LAUREN HENDERSON
A Life Goal to Lessen Suffering

As Lauren (BS animal science ’10) finishes her doctor of veterinary medicine degree at UTCVM, she is also completing a master’s degree in public health (MPH) with a veterinary public health concentration.

She has always been interested in the interactions between humans, animals, and the environment, and working on an MPH has given her a population-level approach to medicine. Lauren was able to put that approach to use last year as a volunteer in a service project in Mozambique. There she participated in a livestock program called “Ovala Project,” which provided goats as income sources to HIV-positive families. Lauren developed a goat health assessment for use by the goat owners and veterinary technicians and helped assess whether providing the livestock made a difference and improved the quality of life in the community.

“My goal is to use my education to end or lessen suffering, whether human or animal, and strengthen the human-animal bond where it is needed most.”

— Lauren Henderson

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EMINE FIDAN
Solving Environmental Issues

As a student, Emine has taken full advantage of those opportunities. In fact, she spent last summer as a congressional intern in Washington, D.C.

“I hope in the future that I can aid in solving current agricultural and environmental concerns, and I believe that my internship was a start to accomplishing this goal,” she says.

CASNR alum, biosystems engineer, and perhaps future congresswoman? We like the sound of that!
In Athens, Tennessee, Paul Willson (BS forestry ’77, MBA ’79) hands these and other words of advice to every college-bound student he comes across. “I have a page of tips I give anybody who sends me a high school graduation announcement, and a lot of parents know I have it,” says the chairman of the board of Citizens National Bank.

For Willson, insight into how to do well in college was hard-won. He missed student orientation and had to figure it out on his own. Today, he makes certain that others don’t have to.

“I don’t think we do a good enough job of telling people what to do before they go and do it. We don’t tell much—nothing really—about marriage when you get right down to it. Nothing about raising a child, really nothing about going to school. I think society needs a whole lot more focus on what we’re doing and why we’re doing it—the hows and whys.”

As a student, Willson says he found that guidance from faculty in the College of Agricultural Sciences and Natural Resources. Forestry econometrics professor Ray Wells (faculty member 1964-98) was a particular standout.

“My story is about mentors. People like that add value to your life, and knowledge. There are so many on the ag campus. The forestry program had a tradition of it, and I was blessed to experience it. Dr. Wells nurtured me, kicked my tail, and got me into graduate school—something I had a hazy plan to do ten years in the future. You can’t replace mentoring like that.”

Willson’s family history in Athens is in both business and agriculture. Farmland in his family stretches back to a Mexican-American War land grant. His grandfather drove a horse and buggy up the straight road to Knoxville to study agriculture at UT in the 1920s. His father followed in the late 1940s, and then Willson, himself, made it a third generation enrolled in UT ag. His wife, Deb McKenzie Willson, earned a BS in animal science in 1981.

Forestry study proved to be excellent preparation for a career in banking, Willson says. “Forestry and banking both are forward reaching, forward thinking, and focused on long-term planning.”

As someone trained to spot opportunity and high potential for returns, Willson is bullish on agriculture. “I think it makes an awful lot of sense no matter what you do. Agriculture is a great opportunity in this state. With the governor and Chancellor Arrington focused on increasing profitability and revenue in the industry, agriculture is an opportunity, and I don’t know that I see a whole lot of other opportunities I could go for. It’s an underused resource.

“It’s also an outstanding area for careers. A lot of our kids, just like me, would rather be outside than inside. I never, ever regret being a student in agriculture. It has served me so tremendously in life.”

Willson is a contributor to the Ray Wells Endowed Scholarship Fund. To learn about the fund and how it assists deserving forestry, wildlife and fisheries students, contact Tom Looney, director of advancement, at 865-974-8622 or tlooney@utfi.org.
One of the UT College of Agricultural Sciences and Natural Resources’ oldest graduates, Joe Ralph Alexander, turned one hundred last October. Even more remarkable than marking a century is the fact that the 1938 agriculture graduate still works the family farm with the help of his son, Joe Alexander Jr.

Alexander graduated a year before the second world war would break out in Europe and three years before it would reach American soil. He attended UT during the heart of the Great Depression and faced challenges paying tuition and finding rides to school from his home some thirty miles away in Loudon County. Hitchhiking proved dangerous only once, when halfway into the trip Alexander discovered that his ride was moving moonshine.

Tuition at the time was $115, but since Alexander had only $75, he worked off the difference by firing the furnace, cleaning books in the library, working on the dairy, and even helping with ice cream in the Creamery, which at the time was located at the back of Morgan Hall.

“I didn’t mind working in the Creamery as much as spending time cleaning books,” he says.

After graduation, Alexander lived in Bradley County for fifteen years, teaching vocational agriculture. It was a subject that was also his favorite class in junior high school. It was there that he met Charlotte Hambright, who became his wife and the rock of his life. The couple moved to Loudon County, where Alexander taught for two decades at Loudon High School. He was beloved by students, who worked hard to live up to his expectations of success. Alexander retired from teaching in 1974 and returned to the farm, which has been in the family since 1810. His family has multigenerational ties to the Institute.

Last spring, Alexander’s son, Joe, spent time working alongside environmental soil science professor Forbes Walker and Loudon County Extension agent John Goddard to research agricultural microbes in forage production with UTIA. After laying out several strips of measured spaces and comparing the separate harvests, they concluded that the bacterium was beneficial for production on the family farm. Alexander’s daughter, Mary Frances, served as a UT Extension agent in Smith County before her marriage to Kenneth Ladd. The couple lives in Dyersburg.

Ralph Alexander quickly shares that, “Everything is different now” since he has been a student at UT, but he says the trek to and from the Hill continues to be all too familiar.

When asked how to live to be one hundred, Ralph Alexander says, “I eat a bowl of oats sweetened with honey every day. I start the day early and work hard all day. I go to church on Sunday. Most importantly, I eat before I get hungry and rest before I get tired.”

In honor of his birthday, Alexander’s family has started the Ralph Alexander, Class of 1938, Endowed Student Scholarship Fund. Contact Keith Barber at 865-974-5779 for more information.
Danny Trieff (MS entomology and plant pathology '02) says he’s been surprised by the tremendous variety he’s seen in his career with customs and border protection. One year he focused on targeting incoming sea containers for inspection using x-ray technology; another on inspecting export cargo. Now he oversees training and operations for the seaport of Norfolk, Virginia. “Being in customs and border protection requires mastery of a wide variety of skills and a deep knowledge base of subject matter in areas of trade and immigration. The position is also one of great responsibility and public trust.” He sees that resonate to important issues that many Americans are passionate about. “Immigration and foreign trade are in the news every day.”

Trieff advises students to be flexible and ready to enter a field they may not have initially considered. He planned to be an Army entomologist, but a fellowship offered him the opportunity of PhD study at the University of Michigan. Then he realized he wanted to enter public service to “catch the bad guys.” His degree from CASNR enabled him to be hired as an agricultural specialist with customs. “My wife and I have two small boys. I don’t want my family or anyone else’s to be harmed by someone or something that enters this country illegally, so that is a good motivator to do the best I can do.”
**DR. CHRIS STEARNS**  
**Veterinary Medicine Mission Work**

Dr. Chris Stearns (DVM ’85) has dual American-British citizenship and became qualified as a member of the Royal Academy of Veterinary Surgeons, making him eligible to practice in several foreign countries. That comes in handy. Stearns, who co-owns a nine-doctor practice in Dalton, Georgia, has participated in international mission trips as a veterinarian and lay minister for his church. In addition to traveling to Nicaragua with CVM students, Stearns has worked in a local clinic in Botswana and assisted small rural cattle posts in the bush. “Every day in a veterinary practice presents different challenges,” Stearns says.

He and wife, Kathryn West, are part owners of a vineyard. They’re parents to Chester, a therapy dog who “reads” at local elementary schools and helps Stearns teach pet care for Scout groups.

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**REBECCA BUCKNER**  
**Food Safety Modernization Act**

In 2011, the Food Safety Modernization Act (FSMA) was enacted, the first significant food safety law passed in seventy years, which mandates major changes in the U.S. food safety system. Guiding its implementation is Rebecca Buckner (MS food science and technology ’93), senior policy analyst for the U.S. Food and Drug Administration. Her job is to concentrate on the seven foundational rulemakings that establish the broad preventive control framework that FSMA envisions. They span everything from increased oversight of imported food to preventive control for human and animal food to regulations for intentional contamination of food through acts of terrorism. “Simply put, this set of regulations forms a new framework for human and animal food safety and will improve the safety of the American food supply in a way that has never been done before,” explains Buckner.

She says she didn’t set out to go into the regulatory field but found that she liked it. “I enjoy the process of creating policy and figuring out how regulations are going to be implemented. One of the most challenging things is that the food supply is incredibly diverse and we have to create broad regulations that are relevant to all parts of a very diverse sector. I think unless you work in regulatory policy that may sound easier than it is, but it is always interesting.”

Buckner is the daughter of the late Edward Buckner, the first Overton Professor of Forestry, who was a faculty member at UTIA from 1956 through 1997. Her mother, Caroline, maintains close ties with the Department of Forestry, Wildlife and Fisheries and UTIA, and a graduate research endowment in forest ecology continues in her father’s memory.
The University of Tennessee is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services. All qualified applicants will receive equal consideration for employment without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, physical or mental disability, or covered veteran status.

UPCOMING EVENTS

UT Gardens Gala .............. 4/29
Milan No-Till .............. 7/28*
Ag Day .............. 9/24

*For more information on this & other field days, visit tiny.utk.edu/2016FieldDays