

TENNESSEE

LAND life & Science

VOL. 3/NO. 1 • UT INSTITUTE OF AGRICULTURE

Inside this issue
healing WATERS
PARTNERSHIPS that build
COMMUNITY
skills for **ADULT SUCCESS**

UT Institute of AGRICULTURE OUTREACH

A FOCUS ON AGRICULTURE AND NATURAL RESOURCES PROGRAMS

THE UNIVERSITY of TENNESSEE



Britt to Serve UT Statewide

The Institute of Agriculture moves into 2005 under new leadership. Dr. Jack Britt, UT vice president for agriculture since 1998, has accepted new responsibilities as UT executive vice president. In this role, Britt will work with UT President John Petersen and with the heads of UT campuses, institutes, and centers statewide.

"I believe the opportunity exists to help the university do a better job in terms of strategic planning and achieving its goals," Britt said, in accepting the position.

Britt transformed programs and services offered by the Institute. Under his leadership, grant and contract funding more than doubled. Academic and Extension units were restructured, and three dynamic buildings were constructed that give UT personnel the resources they need to lead their fields. UTIA scholarships grew to be top-ranked in the southern region, and faculty and students alike received a record number of national awards.



Dear Friends,

UT President John Petersen asked Vice President for Agriculture Dr. Jack Britt to serve the University of Tennessee as executive vice president beginning on October 1. The excellent leadership and vision that Jack invested in the Institute for the past six years will now benefit the university system as a whole, as well as its many partners in research, agriculture, and business enterprises throughout the state.

I am honored to serve as acting vice president and will endeavor to maintain the high quality programs and momentum that Dr. Britt achieved. I look forward to working with the talented and dedicated administration, faculty, and staff who make the Institute a productive enterprise serving all citizens of Tennessee.

As we move forward with a search for a new vice president for agriculture, one thing that will not change is the mission of the Institute and its programs. This issue of *Tennessee Land, Life & Science* focuses on the outreach service of our teaching, research, and Extension programs—the impact these programs are having, the people they serve, and their progress in building a better and stronger future for everyone.

Best wishes to you in the new year.

Buddy Mitchell

UT Interim Vice President for Agriculture

TENNESSEE

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FOUNTAIN fun

Students from UT's Biosystems Engineering and Environmental Science department wowed the crowd at a Fountain Wars competition organized by the American Society of Agricultural Engineers (ASAE). The event challenged students to design and build a fountain and then construct and operate it in

front of judges in a timed event. UT's attention-getting effort sent Barbie™ dolls on a log ride into a shark-filled lagoon as the fountain performed its required actions of lifting and balancing tennis and beach balls.

"We do serious projects and research for school all

the time," says senior Aaron Crenshaw. "Building a fountain was a fun way to apply our basic engineering knowledge."

The team placed second overall and received top honors in aesthetics. Crenshaw credits the dolls for the team's winning edge. —Gina Fincher



A TOAST to Southern wines

Taking the measure of a maturing industry, the 2004 Wines of the South Competition featured entries from 45 wineries in seven states, with a total of 324 wines competing.

The event has grown 69 percent since its inception in 1984. "Wines of the South are really starting to become a major economic factor," says program coordinator Dr. Bill Morris, UT professor of Food Science and Technology. The competition, which UT helps host, aims to boost the visibility of Southern wines and assist wineries in marketing their products. Winners are listed at <http://www.winesofthesouth.org>.



For more about these and other developments, visit <http://agriculture.tennessee.edu/>

Beef PROGRAM RETURNS in 2005

Response to the new Master Beef Producer programs offered by UT Extension has been enthusiastic. "We've had 331 producers and their families participate in the first cycle," says coordinator

Dr. Jim Neel. "And the main questions I've been getting from other producers are, 'Will the programs be taught again?' and 'How can I get involved?'" The programs return early in 2005. Producers interested in taking part should contact their local county UT Extension office for information on fees, dates, and locations. See page 11 for details on the impact the programs are having.



GARDEN Guides Available

Friends of the UT Gardens is proud to announce the release of *Gardening Throughout the Year—A Guide for Tennessee Gardeners*. A collaborative effort with the

Knoxville Watercolor Society, this perpetual guide pairs beautifully rendered scenes from the UT Gardens with monthly instructions and advice for planting, growing, and caring for your own garden. The guide is \$17, with proceeds benefiting the UT Gardens.

An order form is available at the friends' Web site, <http://www.friendsoftheutgardens.utk.edu>.



Super Bowl TURF

The National Football League has selected UT turf student Stephen Sayrs as the winner of the third annual Toro Super Bowl sports turf training program. In February Sayrs will travel to Jacksonville, Fla. to help the grounds crew maintain practice facilities and the game field for Super Bowl 2005. The master's student was chosen from a field of 100 for the honor. See page 8 for more about UT's Turfgrass Team.



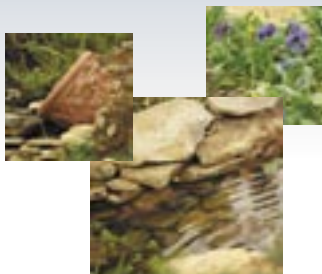


A pond, a waterfall, AND A WISH

by Patricia McDaniels

*Students give from the heart
in spirited community project*

College of
Agricultural Sciences
& Natural Resources



Combine hard work, inspiration, and a generous gift of time, and the results can be uplifting. That's what landscape design students discovered when they installed a water feature at the home of Jack and Nancy Onks of Knoxville. The \$7,000 project began when the Dream Foundation, a charity that grants wishes for those whose illnesses resist medical treatment, approached Dr. Susan Hamilton, director of the UT Gardens. Jack has lung cancer, and he wished for a meditation pond and waterfall. The water, Jack felt, would connect him to a wealth of happy memories of hiking to waterfalls with his daughter.

The Dream Foundation provided a pond kit. Local merchants donated stone, plants, and mulch. Students in a UT landscape construction class launched into a team project to design and install the garden.

"It's been remarkable watching the students and experiencing how they took hold of this project," marveled instructor Curtis Stewart. "They donated hundreds of dollars in materials and hours and hours of their time. Even students outside of the class have participated."

The Onks are delighted. "These kids are terrific. They've been really good for Jack," said Nancy. At a christening party the pond was stocked with koi, and the Onks' newly married daughter, Katherine, released her pet goldfish, Happy, to keep her father company.

Landscape students learn to use themes in their designs. Because the Onks' garden has an Italian theme, Stewart named Happy's new home "Lieto," the Italian word for joyful.



The Onks Family, clockwise from upper left, Jarrod Stone, Nancy Onks, Katherine Onks Stone with Switzer, and Jack Onks.

On the cover, clockwise from top right, fall graduate Will Hoepfner with Wagner, senior Becky Koepke, Prof. Curtis Stewart, Jack Onks, Dr. Susan Hamilton, and senior Russell Lutz.



Students and faculty in the College of Agricultural Sciences and Natural Resources (CASNR) engage in many different service projects. Through outreach efforts such as the Onks Garden, featured on the previous page, students put concepts and theory into action, deepening their understanding of principles in their chosen field.

COLLEGE OF AGRICULTURAL SCIENCES & NATURAL RESOURCES



Landscape students and associate professor Curtis Stewart, right, survey their completed work.

Through service to others, the students learn to be good citizens—to give back to the communities where they will live and work. Reflecting the long-standing commitment to service by CASNR organizations, the animal science-focused Block and Bridle Club won the Chancellor's Citation for Extraordinary Community Service in 2002. The award recognized a week-long educational program that Block and Bridle members developed and presented to Christenberry Heights Boys and Girls Club. "The students did some amazing stuff," says advisor Dr. Kelly Robbins. "It was very educational, very focused." Faculty members help with many of these service projects, and they also contribute more broadly through books and other scholarly works that advance knowledge and understanding.



Dr. Carrie Fritz, right, with high school participants in a STARS summer enrichment program.

STRENGTHENING COMMUNITIES

by Amy Davis

Education specialists Dr. Randol Waters and Dr. Carrie Fritz work with a wide variety of individuals and organizations across Tennessee. “We are about educating individuals for personal growth, career success, and leadership advancement,” Fritz says.

From a Full Service Schools program to a county leadership initiative, Waters and Fritz are working to strengthen communities from elementary school on up. Programs they oversee also encourage high school students to pursue college degrees and offer distance education master’s degrees to teachers and other professionals

Starting this spring UT students will teach agriculture education at least once a week at three Knox County inner-city schools. “The goal is to reach inner city students and show them where food comes from and the importance of agriculture to all of our lives,” says Fritz.

The assistance that Waters and Fritz provide to the the National FFA Organization and an annual Varsity Visit program help high school students strengthen their skills and encourages them to pursue a college degree. “We want to get the kids interested in college, and many of our students do become teachers, so the experiences help them,” says Waters of the events. “The Varsity Visit program brings well over 600 students to the campus for a football game, lunch, and we answer questions about college.”

Waters and Fritz also serve adults and communities by strengthening Tennessee’s leadership base through assistance to programs such as Leadership Grundy County and its counterparts across the state. The distance-delivered master’s program in agricultural education enables teachers and other professionals to advance in their fields from the convenience of their home.

College of
Agricultural Sciences
& Natural Resources



Since 2000, UT faculty in agriculture, natural resources, and veterinary medicine have authored 20 new books or new translations of their work. Reflecting the outstanding academic quality of this material, several of the texts have been translated into other languages, including Italian, Japanese, Korean, and Portuguese.

Learning to be GOOD CITIZENS

by Gina Fincher



Building doghouses for auction, helping Boys and Girls Clubs, and visiting kids at the Ronald McDonald house are some of the ways that students in the College of Agricultural Sciences and Natural Resources (CASNR) give back to the community. Through a variety of service projects, students help others and often get a boost themselves.

In October, CASNR Student Council held a Fall Festival for children in the Knoxville Area. The event involved more than 60 children who were able to participate in games, crafts and snack stations. “It was such a blessing to see the joy in the children’s faces, the appreciation in the parents’ eyes and the satisfaction in the faces of the volunteers,” says Carol White of CASNR Student Council.

Fun of a different sort is found at Mud Bowl, a mud football competition that agriculture fraternity Alpha Gamma Rho has organized for the past seven years.

The popular event has raised thousands of dollars for local and national charitable organizations.

And at Halloween the Food Science Club organized a candy collection for children staying at the Ronald McDonald House. “When a child is sick, everyone in that family is affected,” says president Faith Johnson. “Small things, like having candy for Halloween, help make stressful times a little more bearable.”





AGRICULTURAL EXPERIMENT STATION

For more than a century UT scientists have used the resources of unique research farms and forests to find ways to improve our lives.

Their work through the Tennessee Agricultural Experiment Station has achieved safer and more abundant food, healthier forests, new agricultural products, and better stewardship of the state's environmental resources.

Each year thousands of Tennesseans participate in the Agricultural Experiment Station's field days. New events such as Blooms Days and Summer Celebration serve an ever-growing audience. These hands-on presentations spotlight new ideas and improved methods, with focus on issues of regional and national importance.

Outreach also takes place throughout the year in lab and field experimentation and trials, resulting in breakthroughs that lead to new products and technologies. Examples include new, disease-resistant dogwoods, Persist™ orchardgrass, high-performing soybean varieties, and a much-awaited cotton flow meter. As the research center of the Institute of Agriculture, the Tennessee Agricultural Experiment Station holds a mission to be both a good neighbor and a valuable resource to citizens across the state.

Animal scientist Dr. Lannett Edwards and research associate Lee Ellis, foreground, with colleagues in the Agricultural Experiment Station and some of the people they serve.

Experiment Station research improves, enhances, and conserves

DRINK MILK, LOSE WEIGHT

Perhaps you've heard that a diet rich in calcium and dairy products helps to speed weight loss. That finding, discovered in a UT research lab, is changing how people approach dieting and boosting their success in losing weight—an issue of growing importance to everyone. The research is also increasing demand for dairy products.

UT nutrition scientist Dr. Michael Zemel was the first to discover the link between consumption of dietary calcium and dairy products and the breakdown of fat stored in the body. The key is to consume greater amounts of calcium, particularly that found in lowfat and nonfat dairy products, while reducing calories overall. Eating ice cream, alas, won't work.

Zemel's work is an example of the basic and applied research that the Tennessee Agricultural Experiment Station does. While diverse in scope, the research shares a common goal: to improve lives. The station exists to develop technology and new knowledge that enhances the efficiency of agriculture-related industries, improves the quality of life, and conserves our environmental resources of soil, water, air, and wildlife. Technologies developed recently at UT include a seed-specific amendment applicator for use with row crops and an award-winning instrument that measures wood composite swelling during the manufacturing process. Advances in animal science technologies and in food safety are expected in the near future.

Zemel is now leading an outreach program based, in part, on his research finding. Tennessee on the Move aims to assist people to increase their physical activity through simple activities such as walking, while making wiser choices with their diets. You can learn more about the program at www.tennesseeonthemove.org.

*Agricultural
Experiment Station*



UT'S TURF TEAM

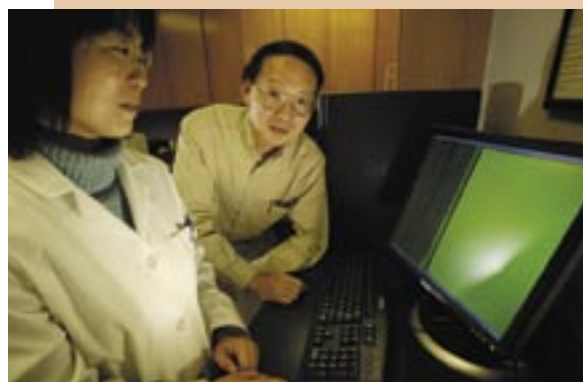


Dr. John Sorochoan right, supervises research at UT's Shields-Watkins field.

UT turf scientist Dr. John Sorochoan has evaluated turf wear for the Vols and at the Nashville Coliseum, home of the NFL Titans. He's fielded calls regarding playing surfaces for Olympic athletes, and he serves as a consultant for golf courses in the U.S. and abroad.

For Tennesseans, though, the benefits of his work are much closer to home. Safer athletic fields and the development of new, slower-growing grass varieties suited to the region are among the goals guiding the work of UT's Turfgrass Team, which Sorochoan leads. The team works to produce management strategies and new products for a wide-range of turf users, from homeowners through commercial turf managers, and turf producers.

Better information—that's what a measurement technique developed by Dr. Siqun Wang, below right, of the Tennessee Forest Products Center offers to manufacturers and research labs. His device to optically measure wood composite swell has received a patent and research awards on two continents. Now licensed and available commercially as instrumentation, the technique has the potential to help wood-based composite manufacturers around the world produce higher quality, more reliable wood composite products.



UT EXTENSION



The University of Tennessee has existed for 210 years, and UT Extension has been an integral part of the university and its land-grant mission for 90 of those years.

But even before Extension became official, UT agriculture professors were holding winter short courses and chartering trains to take university learning to Tennessee farm families. Tennessee was ready when Extension was funded in 1914.

From the beginning, the county farm and home agents were beloved by people in the communities they served. They brought the latest methods, materials, and information to better the lives of all Tennesseans, and they did so in an unbiased way, always anticipating and adapting to specific needs.

Today, using the latest technology, Extension reaches ever more diverse audiences and still seeks to better the lives of all Tennesseans.

UT Extension Agents Michelle Rankin, front, and Booker T. Leigh, right, with some of the people Extension assists in West Tennessee.

UT Extension maintains a strong local presence in each of Tennessee's 95 and the overall community. For 90 years their mission has remained constant. unbiased information as well as programs that are developed and delivered

Extension partnerships are underway across the state. At the Agricenter in Memphis, UT Extension agent Tim Roberts helps with tours and other events that bring the farm closer to home for thousands of Mid South students.

UT Extension



POND CREEK Watershed Project by Leslie Ogle

Helping farmers improve water quality

Partnerships are what UT Extension is all about. In rural McMinn County, UT Extension initiated the Pond Creek Watershed Project to support farmers along the creek as they make changes to improve water quality. Led by Extension environmental soils specialist Dr. Forbes Walker of the Department of Biosystems Engineering and Environmental Science, the project brought together specialists from UT, the Natural Resources Conservation Service, the Tennessee Department of Agriculture, the Tennessee Valley Authority, and the Environmental Protection Agency.

"We've developed relationships with area farmers and have given them options and resources to prevent cattle waste runoff into the creek," said Extension Area Specialist Lena Beth Carmichael, coordinator of the Pond Creek Watershed Project.

"It's very important to let these farmers know that we're here to help. We're here to give them the resources and support they need to improve water quality." Carmichael says that options range from improving pasture management for erosion reduction to assistance in funding for expensive containment systems. "Our goals are to educate farmers and provide them with best management practices," she said. "Improving their farm management ensures their future success and improves water quality at the same time."



Extension Specialist Lena Beth Carmichael and graduate student Stacey Clark evaluate water flow along Pond Creek.

TEAMWORK with Legislature

Now, more than ever, Tennesseans facing social, economic, and technological changes need UT Extension's Family and Consumer Sciences Department. As a partner to the Tennessee Legislature, the department is helping to meet the needs of citizens in critical areas by developing and delivering programs that target important issues. Examples include the state-mandated First

Steps, a training program for Tennessee childcare workers, and Parenting Apart: Effective Co-Parenting, a program that more than 16,000 divorcing parents have completed to date. Expected to debut later this year is a pre-marriage counseling program that UT Extension specialists have initiated to increase the number of successful marriages.

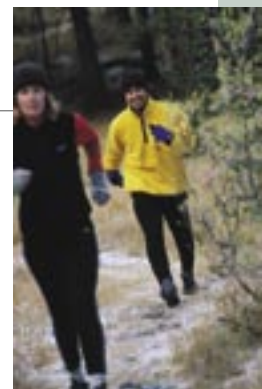


Tennessee SHAPES UP

Because Tennesseans mirror the national trend of being overweight and inactive, UT Family and Consumer Sciences (FCS) agents and specialists have launched a statewide initiative called Tennessee Shapes Up.

The program takes aim at weight by focusing on personal goal setting and overcoming barriers that can keep people from achieving their goals. "Our focus is unique," says Dr. Betty Greer. "We teach people to recognize when they are eating in response to boredom, stress, frustration, loneliness, or unhappiness. This emotional eating is a reason many people consume too many calories. We also help people understand how to make healthy food choices and how to manage portion sizes."

County Extension offices are coordinating community walking groups through the Walk Across Tennessee program. And Extension's FCS program helped lead in the formation of the Tennessee Healthy Weight Network, a state-level coalition that is working to improve Tennesseans' health and diet.



For more about UT Extension, visit <http://utextension.tennessee.edu>.

counties, working to improve the lives of farmers, families, youth, Agents working one-on-one with citizens deliver research-based, in partnership with county, state, and federal agencies.

MASTER BEEF Producer Program

Tennessee ranks ninth in the nation in beef cows and fourth in cow-calf operations—in other words, beef is big business. Finding ways to add value to the state's existing cattle industry can generate significant returns. That's precisely the goal of several UT Extension initiatives.

Participants in the new Master Beef Producer Program predict the program could improve their annual returns by more than \$700,000. "If every producer associated with the state's 51,000 cattle operations were to realize similar predicted gains, producers could enhance their combined profits by more than \$100 million," said Dr. Emmit Rawls, a UT agricultural economist and coordinator of the Tennessee Beef Cattle Improvement Initiative. Regional initiatives such as The UT Ultimate Bred Heifer Program, now completing its fifth year, are having an array of impacts in the beef industry. More information about these programs is available from your local county UT Extension Office.

Center for Profitable AGRICULTURE

by Elise LeQuire

From agritourism to specialty preserves, the Center for Profitable Agriculture (CPA) has worked on more than 89 projects to boost the market potential of Tennessee products.

The CPA—a partnership between the Tennessee Farm Bureau Federation and the University of Tennessee Institute of Agriculture—offers assistance at every step, from calculating break-even scenarios to developing marketing strategies, analyzing the customer base, determining traffic patterns, or evaluating the layout of products in a retail store. "We work with farmers and farm families to add value to farm resources," says Rob Holland, Extension specialist with the CPA.

Between 1997 and 2002, the number of Tennessee farmers involved in value-added agriculture through direct marketing increased nearly 26 percent. At the same time, the state saw a 34 percent increase in the total value of agricultural products sold directly to consumers, Holland says.

Jones Orchard, near Millington, already had a commercially inspected kitchen on the farm to turn its home-grown peaches, plums, pears, and berries into jams and jellies. CPA helped Juanita and Lee Jones conduct a marketing study, register the farm logo, and develop advertising materials, and gave input on developing a website. "The Extension service could not have been more helpful," says Juanita Jones. "I don't know what we would do if they weren't available."



UT Extension

TENNESSEE SAVES

by Henry Molter

Think of it this way: if the Tennessee Lottery is a predictably confident Hare, Tennessee Saves is the Tortoise. And we all know who won.

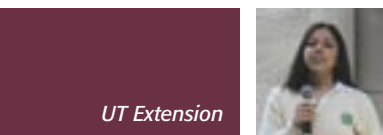
Tennessee Saves, a program administered throughout the state by UT Extension, offers proven tactics for individuals and families to increase their financial savings as well as no-nonsense advice for solving common money and credit problems. Their goal is to help Tennesseans save and build wealth by providing financial and savings education.

By forming partnerships with consumer advocates, government agencies, banks, and other businesses, Tennessee Saves has developed methods that include simple saving strategies, debt-repayment advice, minimum-deposit savings accounts, and campaigns to warn against consumer fraud. In some counties Tennessee Saves can even provide participants with a personal financial coach—a wealth coach!

Tennessee Saves is being implemented in nine Tennessee counties, and there are plans for a statewide kickoff early this year. Unsettling bankruptcy statistics across the state prompted this latest and most widely advertised program offered by Extension's Family and Consumer Sciences Department. In the past five years Tennessee has been either No. 1 or No. 2 in personal bankruptcies filed nationally.

Financial curricula and techniques developed by Extension have also been used to train workers in many state offices, including the Department of Human Services and the Tennessee Housing Development Agency. "These coalitions and partnerships with government agencies, community advocate groups and financial institutions are key to the success of our programs," says Dr. Dena Wise, UT Extension family economics specialist and Tennessee Saves coordinator.



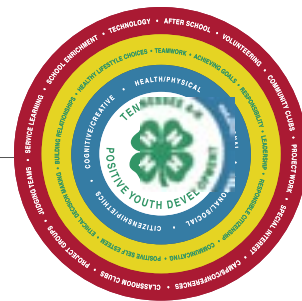


4-H LIFE SKILLS

Young people need all the skills they can get to prepare for the challenges they will face as teenagers and as young adults. Tennessee 4-H has always taught important life skills, and today the program is using new approaches to foster positive youth development.

By emphasizing life skills in five areas—health/physical, personal/social, cognitive/creative, vocational, and citizenship/ethics—4-H is helping Tennessee youth build skills essential for adult success. “Each 4-H program is designed to strengthen youths’ skills in one or more of the five basic competency areas,” says State 4-H Leader Alice Ann Moore. “Through evaluation methods, we are able to show that because a child was involved in a specific 4-H program such as project groups or has participated in educational opportunities through 4-H, he or she developed skills essential for future success.”

Each year, more than 380,000 youth ages 9 through 19 participate in Tennessee 4-H through clubs, special interest groups, after-school programs, camps, and many other activities.



4-H ANIMAL SCIENCE Projects by Trish Milburn

“I don’t think there was ever a little girl between the ages of 8 and 18 who didn’t want a pony.”

That’s how Roger Elder of Blount County partially explains the popularity of the 4-H Horse Project, one of several animal science projects 4-H offers, and its most popular. Elder and his wife, Sandra, have been 4-H leaders for 28 years and have been named Horse Project Leaders of the Decade.

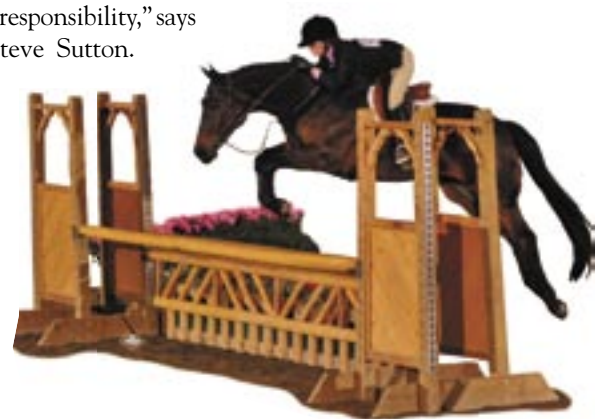
4-H’ers—boys as well as girls—are passionate about their animal projects. All family members usually become involved, from raising and showing lambs, calves, chickens pigs, and goats, as well as horses. The programs are not just about shows and contests. 4-H’ers learn about feeding, caring for, managing, selecting and showing their animals.

According to UT Extension’s Doyle Meadows, who coordinates horse shows and projects, there are 17,000 Tennessee 4-H’ers who take part in horse shows, judging, speech competitions, horse bowls and contests. Another 8,000 4-H’ers are involved in beef, sheep, swine, and dairy cattle programs. Students do not have to own an animal to take part.

“These programs teach youth about responsibility,” says State 4-H Extension Specialist Steve Sutton.

“As with all 4-H programs, youth learn about being good and responsible citizens. They’re learning skills for life.”

Elder says the bond a student forms with his or her animal is another part of why the 4-H animal projects remain so popular, year after year. “Many kids spend their entire 4-H career with one animal. They take care of it, and the animal is a buddy they can talk to.”



“It teaches good essentials, and there are lots of scholarship opportunities,” says Rachel Robinson, 15, of Alcoa, shown astride Franklin. “And I’ve met a bunch of great people.”

YOUTH VOICE

Responsible citizens are the lifeblood of every community. To help young people learn to be good citizens and become engaged in their communities, the Tennessee 4-H Program encourages its members to serve on local boards and committees. Through service on local governing structures, youth learn to work as equals with adults and have a role in determining outcomes or decisions on issues that concern them.

4-H’er Laura Duke served on a United Way allocations committee in Humphreys County. “Walking into that first meeting and being greeted by 15 adult faces was intimidating, to say the least,” Duke recalls. The overall experience, however, is one that she will value the rest of her life. “Until my service on the committee, I hadn’t realized the size and scope of needs of the people in our county. I had to use all of the skills I had learned to decide how to allocate a \$300,000 budget. It was very humbling to realize that the decisions made by the allocations committee would have a major impact on the lives of our citizens.”

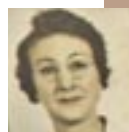


Demonstration farms have always been important in teaching agricultural innovation. Here agent Angie Fugate, center, guides visitors from Africa in 1956 as they tour the family farm of Mr. and Mrs. Carl Fritts, second and third from left.

CONTINUITY AND CHANGE

By Lisa Byerley Gary

50 years of Extension in Anderson County



UT Extension

Three generations of Family and Consumer Sciences Extension agents have worked in Anderson County, Tennessee, across the past 50 years. Teaching methods have changed a bit since 1954, but the need for community education does not abate and the commitment of Extension educators has not diminished, either.

Angie Fugate was a former public high school teacher when she came to Anderson County to work with homemakers in 1954. When Marjorie Phillips arrived in 1974, she had just graduated from UT and thought her new position was a stepping stone to some other sort of career. She spent 30 years, however, working from the same desk in the Anderson County Courthouse before handing the reins to Carmen Burgos, who grew up under the influence of Extension in Puerto Rico. Burgos had previously worked as an area 4-H specialist before accepting her new position last August.

When Fugate began Extension work, women were never county directors. Phillips was one of the first female county directors in Tennessee. By the time Burgos arrived, women directors were commonplace.

All three found the communities of Anderson County warm and welcoming. All three followed the time-proven Extension tenet of teaching to meet the needs of communities and individuals. But over the years, what they taught and the methods they used have varied a lot.

Fugate held hours-long workshops on such topics as pressure canning and weaving chair bottoms. Phillips used a laptop computer to bring PowerPoint presentations to groups that included many women who worked outside the home. Burgos finds her audiences have less free time than ever so she always plans to begin on time and finish early because busy families must rush off to their next obligation. Though topics and families change, themes continue. Fugate taught emergency preparedness for floods and other natural disasters. Phillips helped families prepare for Y2K, while Burgos will teach preparedness in a post-Sept. 11 world.

Home technologies have changed, too. When electricity reached the more rural areas of the Tennessee Valley, Fugate helped women learn to use their new electrical appliances, to shift from woodburning ovens to electric ranges. When space-age technology reached the home, Phillips introduced families to the wonders of the microwave oven. While it's too soon to tell what modern marvels will come to the home under Burgos' watch, whatever comes, Extension will surely be doing what it does best—teaching consumers to make the best use of the resources available to them.



*Fugate, above, in the 1940s,
and today with Marjorie Phillips.*



*New agent and county director Carmen
Burgos with agent Joe Hall.*

*A history of Tennessee Extension,
begun in honor of UT's
bicentennial, will be available
later this year.*

For nearly 20 years,
UT's College of Veterinary Medicine has
worked to promote the human-animal bond
through its outreach programs.

ANIMAL THERAPY

by Elise LeQuire

College of
Veterinary Medicine



Adolescents from troubled backgrounds are being recruited to train and handle unclaimed dogs from animal shelters, and the results are proving beneficial to the teens and the dogs alike. The training, called HALT (Humans and Animals Working Together), is sponsored by UT's College of Veterinary Medicine, and is one of four programs that Dr. John New has helped to develop over the past 20 years to bring animals and people together for therapeutic purposes.

"These dogs have been thrown away by society, just like me," noted one girl—one of 300 teens who have participated in the program. Developed in 1987 with the help of community volunteer Beth Code, HALT has saved more than 250 dogs from euthanasia.

"We don't have to explain the human-animal bond down to neurotransmitters and blood pressure to acknowledge the positive benefits," says Dr. New, who also helped launch Human-Animal Bond in Tennessee (HABIT) in 1986 along with volunteers and specialists in mental health and veterinary medicine. HABIT programs bring companion animals to health-care and assisted living facilities, cancer centers, schools, and hospice programs. HABIT volunteers made over 85,000 visits last year.

Dr. New also helped to found HERO (Humane Education and Responsible Ownership of Pets), in 1997. A new endeavor, the Ruff Reading program, provides a "dog-in-the-school" and allows children to read to their new four-legged friend in a classroom setting. "Little or big, short or tall, these dogs are loved by the kids, who go in the corner one by one and read with it, or stroke it, or love it," says Vicki McKernan, a fifth-grade teacher at West Hills Elementary School in Knox County. "The dog provides that nonverbal, unconditional love and reaches a part of a child we can't reach."



Better Animal Stewardship

An animal welfare task force initiated in East Tennessee is being expanded as a statewide program under the leadership of the UT College of Veterinary Medicine. The Companion Animal Initiative in Tennessee (CAIT) promotes humane education and responsible stewardship of companion animals. "Our mission is to end the surplus of homeless cats and dogs in Tennessee by taking a proactive approach," says program coordinator Teresa Jennings. CAIT sponsors a spay/neuter hotline, (865) 974-6464. To find out more about CAIT, contact Jennings at (865) 974-8231.

A Hero to Both PETS AND PEOPLE

The American Veterinary Medical Association (AVMA) has honored Dr. John New Jr. with the 2004 AVMA Animal Welfare Award. A hero to both pets and people, New has tirelessly researched many avenues of animal welfare, including pet ownership, overpopulation, and pet relinquishments. This work has led to programs that enhance pet ownership and owner responsibility. Through New's insights, countless pets have remained in their homes and are strong examples of the human-animal bond in action.



*Bring animals and people together,
and good things happen. That concept
is central to Dr. John New's work.*

COLLEGE OF VETERINARY MEDICINE

As one of only 28 veterinary schools in the nation, UT's College of Veterinary Medicine has a special responsibility to share the benefits and insights of veterinary medicine with many different segments of society. Through their programs the college is expanding the overall scope and impact of veterinary medicine and public health.

UT's Armistead Teaching Hospital provides critical care to animals across the state and region. Each year animal-assisted therapy programs pioneered by the college enrich the lives of hundreds of people and hundreds of animals. As these programs expand, the college is launching several new initiatives, including the statewide CAIT program (described on page 14) which seeks to improve stewardship of companion animals in Tennessee. The college's outreach teaching program serves close to a thousand veterinary professionals each year. Summer programs for children in grades 4 through 10 open young minds to the wonders of veterinary medicine, and credentialing programs prepare emergency management specialists for animal emergencies and natural disasters.

Dr. John New, professor and head of the Department of Comparative Medicine, with veterinary medicine colleagues and students.



As Extension veterinarian, Hopkins also supports the work of county Extension offices on issues associated with companion animals and public health.

Cattle, sheep, goat, and horse owners have a friend in Dr. Fred Hopkins.

HERD HELP by Leslie Ogle

UT's Veterinary Extension Program assists state's large animal owners

College of Veterinary Medicine



regularly works with beef, dairy, horse, sheep, and goat organizations throughout Tennessee. "I hope to benefit all of these groups by providing current information about reproduction and health related issues," Hopkins says.

Statewide meetings are a primary medium for sharing information, and Hopkins makes presentations at 40 or more meetings each year. Factor in the time involved for preparation and travel with his other duties, and it's clear that Hopkins manages a demanding schedule. Yet he also finds time to assist with 4-H livestock programs. "The 4-H groups in this state are huge," Hopkins says. "This summer, the 4-H livestock show will welcome nearly 1,100 children."

Whether it is the animal owners setting the agenda or stories breaking in the media, the topics Hopkins addresses are varied. Quite often the issues stem from

Learn more about UT's large animal programs at <http://animalscience.ag.utk.edu/extension.htm> and www.vet.utk.edu/departments/LACS/.



UT's Veterinary Extension Program assists the state's large animal owners.

VETS TO THE RESCUE by Elise LeQuire

By all accounts, Shiprock was a plucky dog. When someone left the gate to his yard open, his adventurous spirit led him to the nearby Tennessee River, where he nearly drowned before being rescued. Shiprock's regular veterinarian referred owner Jenny Macfie to UT's College of Veterinary Medicine.

"He was in shock, cold, and struggling to breathe," says Dr. Kate Stenske, a resident in internal medicine. "His overnight prognosis was grave." Yet the 15-year-old dog found the stamina to rebound and survive the ordeal, with help from the caring staff at CVM.

Shiprock was one of about 9,300 canine patients seen annually by veterinarians in the teaching hospital. It treats nearly 36,000 animals in its small, large, and exotic/zoological clinics. Patients include more than 800 residents of the Knoxville Zoo.

But domestic and zoo animals aren't the only patients at CVM. As human development infringes on farm and wilderness, the clinics have seen an increase in the numbers of wildlife patients. Nancy Zagaya, a licensed veterinary technician at CVM, is particularly concerned about wildlife abductions. When people find injured or apparently abandoned animals, the best thing to do is call for additional information before intervening. People should also be aware that some wildlife can harbor rabies and distemper.



BLAZING PATHS

by Gina Fincher



Each summer a select number of Tennessee high school students put their fingers on the pulse of veterinary medicine through a program designed to provide hands-on experience to prospective students.

The Summer Experience program seeks to attract more African American high school students in Tennessee to veterinary medicine, a field in which they are tremendously underrepresented. "I signed up with this program because I'm very curious about veterinary medicine, and I thought the hands-on experience would help me see if this is something I want to pursue," said Tyanice Jackson, a high school student from Memphis.

The students spend seven weeks working in a veterinary clinic in their hometown. Then the summer experience continues at the College of Veterinary Medicine, where students participate in clinical rotations, zoo medicine, and the inner workings of veterinary medicine.

One former Summer Experience participant is now a UT College of Veterinary Medicine graduate practicing in Georgia, another is a third year student at the College of Veterinary Medicine, and others are expected to follow. Many are presently undergraduates at UT and other institutions.

The Tennessee Higher Education Commission helps fund the program, which was established in 1993.



College of
Veterinary Medicine

UT GARDENS



In the early morning light, tour buses roll up to the UT Gardens, and senior citizens alight for a stroll. By mid-morning, groups of elementary students arrive to look at, learn about, and even pretend to be, trees. UT students also stop by, some to enjoy the peaceful surroundings, others to collect samples for their studies.

Each year the UT gardens in Knoxville and in Jackson serve as an outdoor classroom and place of serenity for an estimated 60,000 visitors. Operated by the Experiment Station, the gardens are among UT's most popular outreach programs, enjoyed by many and important to a wide range of research, teaching, and Extension programs.



Agricultural
Experiment Station

Local Service, Statewide Commitment

The 11 field stations of the Tennessee Agricultural Experiment Station hold a dual role. Located across the state, these UT research and educational centers work to serve the needs of their local communities, as well as citizens statewide.

UT scientists and students use the centers to test ideas and find solutions to issues faced by producers, agribusinesses, and the general public. Field days and on-site research allow people to see, feel, and touch advances in production methods. The centers also support a growing number of educational programs tailored to the needs and interests of their region.

In East Tennessee, Experiment Station Superintendent Dr. John Hodges, center, and research associate Lee Ellis work in partnership with local community members such as Bob Schmidt, left. An agricultural entrepreneur, Schmidt has shared insights as a featured speaker at UT field days and hosted educational programs at his Maple Lane Farms in Blount County.



The mighty hemlock faces extinction from a tiny invasive pest from Asia.

Alumni & Development

FRIENDS TAKE A STAND

by Amy Jenkins

Imagine your favorite place in the Smokies. If it's near a mountain stream, chances are you've enjoyed the cooling effects of a hemlock-lined streambed. Hemlocks are critical to the mountain ecosystem, cooling streams by up to 10 degrees and providing habitat for a dazzling array of life. Today these majestic trees and their unique ecosystem are in jeopardy from an

exotic pest, but thanks to a \$250,000 commitment from the Friends of the Smokies, hemlocks have a fighting chance.

UT scientists in the Department of Entomology and Plant Pathology are working to stave off infestations of hemlock woolly adelgid (HWA). The tiny pest, an invasive insect from Asia, feeds off the base of the hemlock needle and can kill a tree in three to five years. The pest threatens to wipe out the ecologically important native eastern and Carolina hemlock in the Southern Appalachians.

Thanks in large part to \$96,000 raised by Friends of the Smokies in 2003 and with funding from the National Park Service and the U.S. Forest Service, the department began raising beneficial insects that feed on adelgids to save otherwise untreatable hemlocks.

Now the Friends will give hemlocks an even greater gift. With their support, the department has begun renovating space that will increase rearing capacity, allow for the addition of a second beneficial beetle, and provide research capabilities to help scientists determine the best methods for rearing and releasing the helpful insects.

But the Friends organization could not do it alone. UT benefactor Lindsay Young and the Aslan Foundation of Knoxville have generously earmarked \$150,000 to be used for the lab expansion and renovation. Mr. and Mrs. Fred Stanback of Salisbury, NC, have also contributed \$25,000 for the project. Additional gift announcements are anticipated shortly.

"Anyone who loves the region knows this is a fight we cannot afford to lose," says Jim Hart, executive director of the Friends. "We are deeply grateful to Lindsay Young, the Aslan Foundation trustees, and the Stanbacks for their leadership and generosity."

According to Dr. Carl Jones, department head, the gift could make all the difference to the program. "Timing is crucial in fighting HWA. We literally wouldn't be here today if it weren't for the Friends. We've had great support from the Forest Service and the park, but without Friends, we would just be getting started, not looking at making a critical expansion."

It seems the Friends of the Smokies are good friends indeed.

For more information, contact Jones or Dr. Ernest Bernard at (865) 974-7135. To contact Friends of the Smokies, call (865) 453-2428. To contribute or learn more about the public-private partnership to save hemlocks, visit the Web at <http://agalumni.tennessee.edu>, www.friendsofthesmokies.org, or www.saveourhemlocks.org.



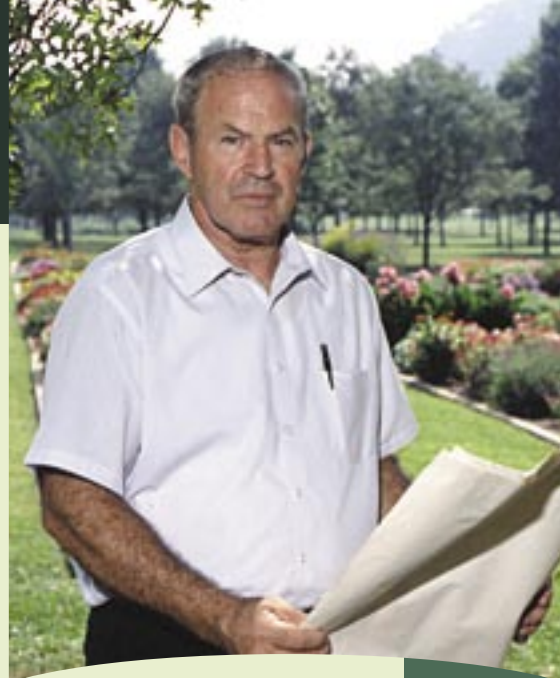
Holding hope in their hands, Dr. Ernest Bernard, left, and Jim Hart release UT-reared Pt beetles into an infested hemlock in the park. The beetles are a natural and powerful enemy of adelgids.



WILLIAMS FAMILY MAKES GIFT TO ENDOWED PROFESSORSHIP

The family of Mrs. Sue Williams has made a gift commitment of \$50,000 to the Donald B. Williams Endowed Professorship in Horticulture. Dr. Williams, a 1956 alumnus, retired in 2000 after a 38-year career at UT. Shortly after his death in November 2002, the university announced plans to establish a professorship in his name. The steering committee is co-chaired by family friend Dick Ott and UT President Emeritus Dr. Joe Johnson.

Sue Williams and daughters Donna Cureton, Brenda Hawkes, Sandra Williams, and Wanda Stutsman will make the gift through the family estate. The fund will be used to attract a leading horticulturist to teach and conduct research at UT. Dozens of friends, admirers, colleagues, and former students have contributed thus far. In addition, Ornamental Horticulture and Landscape Design students who graduated during Williams' tenure at UT will be asked for their support. Gifts can be made using cash, stock, appreciated property, a trust, or a bequest. For more information, contact Sharon Littlepage in the Office of Agricultural Development at (865) 974-7439 or slittlep@utk.edu.



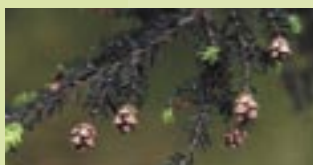
NEW MEMBERS Named to Development Board, Alumni Council

Eight new board members joined UT's Agricultural Development Board last fall. They include Charles Trost of Nashville; Frank E. Neal of Nashville; Jimmy L. Arnold of LaFollette; Doris Ligon of New Market; Albert C. Samsel Jr. of Grainger County; Eleanor Yoakum of Tazwell; and Hulet Chaney of Knoxville.

Also, seven new alumni of the College of Agricultural Sciences and Natural Resources have been chosen to serve three-year terms on the Institute's Agricultural Alumni Council. New members include Steve Bennett of Thompson's Station; Alan Bruhin of Sevierville; Kenneth Copley of Murfreesboro; Tim Hoilman of Bridgewater, VA; Joel F. Keebler of Abington, VA; Angie Rowe of Maryville; and Todd Steen of Murfreesboro.

For more information about the Alumni Council and Development Board, visit our Web site at <http://agalumni.tennessee.edu>

*Hemlocks can reach
heights of 175 feet
and live as long as
400 years.*



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Tennessee's Super Bowl of Bird Dogs

The clatter of hooves and thrill of the hunt return Feb. 14, when Ames Plantation hosts the 106th National Field Trial Championship. The world's top bird dogs gather for the historic event in Grand Junction to hunt coveys of quail. Handlers, judges, and a gallery of spectators on horseback follow the action. You can join in, too, either at the event with your own horse or by visiting the plantation's Web site. Organizers are working to overcome losses in state funding for the plantation and continue the rich tradition of the National Field Trial Championship in Tennessee. Eukanuba and Ford Motor are the exclusive sponsors of the 2005 championship. In November, Tennessee Lt. Gov. John Wilder, Mississippi Gov. Haley Barbour, his wife, Marsha, as well as U.S. Sen. Thad Cochran, and U.S. Rep Roger Wicker participated in a four-day benefit for the plantation and the National Bird Dog Foundation at Fitch Farms in Holly Springs, Mississippi.

Learn more about the Ames Plantation at www.amesplantation.org.

Forestry Celebrates Fortieth

Reuniting old friends—that's what happened on Oct. 22-23, when the Department of Forestry, Wildlife, and Fisheries celebrated its 40th anniversary.

"It was like a reunion," said Billy Minser, the first master's graduate of the program and a current instructor. "It was about seeing old friends and catching up with them."

More than 120 alumni and friends enjoyed a slide show review of the department's first 40 years and reminisced with former administrators and faculty. The department's Advisory Board of Friends, composed mostly of alumni, met to discuss the opportunities of the department and how to grow its programs. —Amy Davis



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