Diversifying research

A focus on agriculture and natural resources programs at the University of Tennessee Institute of Agriculture
Don’t forsake your roots. Dance with the one that brung ya. I’ve been reminded of those wise words more than once this spring as we’ve moved swiftly ahead with planning and vision for the Tennessee Biofuels Initiative.

Important as the new Biofuels Initiative is to the national energy debate, state economic development, and our land grant mission, it should not displace the need for our best research and educational efforts in traditional agricultural, natural resources, and veterinary medicine sectors. The Institute of Agriculture remains committed to the support of these vital interests, and in the pages of this magazine, you’ll read of some of our efforts in these areas.

This is truly an exciting time to be at the Institute with growth in both our traditional programs and new endeavors. As an alumnus or friend of the Institute, you are an important partner in that progress. I look forward to the advancements that together we can achieve.

And I invite you now to make plans to join us in Knoxville on Saturday, October 18, for our traditional pre-game Ag Day festival. Details will arrive in the mail soon.

All the best,

Joseph A. DiPietro
UT Vice President for Agriculture

Learn more at http://agriculture.tennessee.edu/
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Gift to grow Clyde Austin 4-H Center

A Greene County couple has made a million dollar gift to match state funding for a new lodge to be built at the Clyde Austin 4-H Center in Greeneville.

Their gift, along with others being sought, will be used in addition to state funding to build the lodge facility and enhance the 4-H Center. The long-term viability of the camp is greatly enhanced by these improvements and additions. “This is a program changing gift,” said Dennis Jones, director of Development.

The lodge will be used for smaller groups, especially in the off-season, that the larger camp facilities cannot economically accommodate. It will offer a more intimate and relaxing atmosphere that many youth groups, families, and businesses seek when planning meetings and retreats.

Biofuels Initiative moves ahead

Sixteen East Tennessee farmers are planting switchgrass this spring as part of the UT switchgrass farmer incentive program. In total, 725 acres in seven different counties were enrolled in the program.

The switchgrass, along with wood chips and other plant material, will be used as feedstock in the state’s first demonstration-scale cellulosic ethanol biorefinery. Production of cellulosic ethanol from non-food sources can help prevent problems like higher food prices and fertilizer pollution associated with fuel produced from grains.

“We are very excited by the interest and eagerness to participate that we’ve seen from Tennessee farmers,” said Dr. Kelly Tiller, director of external operations for the Tennessee Biofuels Initiative. “We look forward to working closely with them over the next few years as we continue to establish switchgrass as an ideal energy crop for the state.”

The farmer incentive program, which is coordinated through UT’s Office of Bio-energy Programs, will pay farmers a rate of $450 per acre per year to grow switchgrass for a three-year term. The farmers will also be supplied with high quality switchgrass seed and technical assistance from UT Extension.

In addition to the national security and environmental benefits associated with renewable domestic energy production, UT anticipates the Biofuels Initiative will also benefit farmers and rural communities.

UT expects to enroll more acreage into the farmer incentive program for planting in spring 2009 and 2010.

In April, the Initiative took another stride ahead when the U.S. Department of Energy announced that Mascoma Corporation, UT’s technology partner in developing the cellulosic biorefinery, is among the recipients of a $26 million grant for the development of biomass conversion technology.

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The Ag Institute has a right to be a proud participant. UTIA has raised more than $57 million to date—nearly 70 percent of our goal of $85 million. UTIA originally intended to raise $55 million, but met that level of giving quickly. A new goal was then set at $85 million. “We appear to be well on our way to achieving that ambitious total very soon,” says Dr. Joe DiPietro, vice president for agriculture.

Dr. DiPietro isn’t surprised to see the Institute doing so well in its ability to raise money. “It is a privilege to lead such a dynamic organization—rich in tradition with an eye towards the future,” he says. “We have incredible extension, teaching, and research programs that provide solutions that help the people of Tennessee statewide every day. Funds raised from the campaign are key to our success—now, next year, and for decades and decades to come.”

The $700 million raised in the “Campaign for Tennessee” comes from the generosity of some 88,000 donors. The campaign runs through December 2011. –Chuck Denney

Over the years, there’s an unofficial line that’s been added to the Tennessee fight song “Rocky Top.” Between “Good ol’ Rocky Top...” and “…Rocky Top, Tennessee” Big Orange fans have thrown in a “Whoo!” It was on “Whoo!” that streamers went streaming and a crowd wildly celebrated UT’s latest remarkable fund raising achievement at the recent kickoff of the public phase of the “Campaign for Tennessee.” This bold effort seeks to raise one billion dollars for UT, and the April kickoff President John Petersen announced that $700 million had already been raised. The evening included a visit from Coach Pat Summitt and the National Champion Lady Vols, and the crowd sang a spirited version of “Rocky Top” as the finale.

The kickoff put the spotlight on dozens of campus organizations, including UTIA’s College of Agricultural Sciences and Natural Resources, the College of Veterinary Medicine, the Agricultural Experiment Station and UT Extension. Students, faculty, and community representatives from each area of the Institute paraded through Thompson-Boling Arena as part of the festivities.

The Campaign for Tennessee

Spirited kickoff engages public in reaching goal
An idea that began as a simple collection of plots comparing annual flowers has—in just 25 years—blossomed into a fabulous success story that is the University of Tennessee Gardens.

Located on six acres beside Neyland Drive and a bend in the Tennessee River, the UT Gardens now include collections of annual and perennial flowers and herbs, along with woody ornamentals and an arboretum that includes more than 200 trees. Over the years hardscape structures like ponds, walkways and trellises, and art, have joined the Gardens’ many plants, adding to its scenic appeal.

As part of this year’s Silver Anniversary Celebration, in September the Gardens will dedicate a new entrance plaza. Courtesy of the Friends of the Gardens organization, the new plaza will better accommodate the some 50,000 visitors who stroll through the grounds each year.

And yet, amidst the bustle of activity from students, volunteers, curious visitors, and those seeking a quiet retreat, the Gardens remain a place for scientific inquiry.

In 1983 Doug Crater, head of the Department of Ornamental Horticulture and Landscape Design (now Plant Sciences) established the UT Trial Gardens on the grounds of the Tennessee Agricultural Experiment Station. The Experiment Station is a research unit of the UT Institute of Agriculture, and its facilities serve as outdoor laboratories for agricultural and natural resource scientists and students.

Crater and every other serious gardener in the Mid South knew that gardening and landscaping in the region can be quite challenging because of extreme summer heat and humidity and frequent winter freezes and thaws. He envisioned the Gardens to serve as important proving grounds for leading commercial seed and plant companies—businesses that ultimately determine which plants reach commercial markets. Such information is also essential to the success of commercial growers and landscapers, and private gardeners.

Today UT faculty use the Gardens to conduct evaluations to assess the heat and cold tolerance of plants; flower production, uniformity, and size; plant size, pest resistance and drought tolerance; and landscape appeal.

Students use the grounds for landscape design projects and for learning labs and internships in the popular public horticulture major.

These possibilities are enhanced with the addition this fall of a new landscape architect degree.

It was Crater who sought recognition for the Gardens as an official All-America Selections (AAS) test grounds and display site. As an official AAS judge, he knew the rigid protocols needed to obtain the prestigious recognition. The Gardens were the 32nd AAS test site and remain one of only 40 official AAS test sites in the United States.

Susan Hamilton, current director of the Gardens, was with Crater from the start. She served as Crater’s research associate and, from 1983 until 1995, oversaw the trial gardens and assisted in plant evaluations. Hamilton and Crater shared a vision in the late 1980s for the variety trials and the surrounding grounds to be developed into a more complete university garden.

In Fall 1989 Don Williams, who taught a landscape construction/contracting class, had his students build an entrance to the Gardens that included a meandering brick pathway. In 1990, Will Witte planted new introductions of trees and shrubs from USDA as well as the J.C. Raulston Arboretum around the meandering walk. These additional features, plus the original variety
trials, coalesced the site into the beginnings of a true university garden. New hardscape features were added as a result of class projects every year from 1989 through 2000, when Williams retired.

In 1992, Hamilton and Crater knew they needed help to fully realize the vision of a garden suitable for research and student involvement as well as community outreach. They worked to create a support organization now known as the Friends of the Gardens. Mary Spengler, a current co-president of the organization, was the first president.

Over the years the Friends have supported the Gardens in a number of vital efforts. From contributions to support summer interns who work in the gardens to countless hours of physical labor to divide plants, to reading to children or conducting lectures on the art of gardening, the Friends have been at the heart of the Gardens’ outreach program. It’s the Friends who cooperate with the Experiment Station to put on the annual Blooms Days Marketplace and Celebration each June as a fundraiser for their efforts.

As the Gardens expanded they demanded more maintenance. In 1996 funding was secured for a greenhouse/garden technician. Known as the Gardens curator, James Newburn is a familiar figure as he tends the plants, directs interns and answers thousands of casual questions from visitors.

In 2001, Hamilton was named director of the Gardens. She continues to develop new research programs and plant collections and to assist the Plant Sciences Department with relevant student curricula. This year silver is her favorite color, but she can’t wait to see what the next 25 years will bring. –Patricia McDaniels

The UT Gardens are open to visitors seven days a week during daylight hours, and tours and talks are often held on site. For more information, visit the Gardens Web site: http://utgardens.tennessee.edu/

Colorful vistas of annual and perennial plants await visitors to the UT Gardens in Knoxville. The Gardens are an important site for testing and display in All-America Selections (AAS) trials. The new Friendship Plaza Entrance, pictured below, will be dedicated September 28.

New Gift Fund Aids Hort Students

The demand for public horticulture professionals has never been higher. To prepare UT students to lead in the field, the UT Gardens is launching an Educational Gift Fund. The fund will support student interns, opportunities in the gardens, professional development for travel and workshops, and research projects.

Graduates of the public horticulture program find rewarding careers. Their choices are as varied as directors of a botanical garden or parks, city or urban horticulturists, urban foresters, extension agents, teachers, educational directors, or program coordinators, professional garden writers and editors and publication managers, horticulture therapists, public garden curators, and plant collections managers.

To assist, send donations to the UT Gardens Educational Fund, 2621 Morgan Circle, 114 Morgan Hall, Knoxville, TN 37996-4500 or call (865) 974-5779.
Student standouts

Here’s a snapshot of some of the outstanding students enrolled in degree programs offered by the Institute of Agriculture.

**Amy Greene,**
Senior in Agricultural Economics and Business from Sneedville

Explored “Understanding Bank Perspectives of the Beginning Farmers and Ranchers Loan Program in Three East Tennessee Counties” as her honors research and creative achievements project. “I have friends who want to get into farming but are having a really hard time of finding the financial resources necessary, so I wanted to understand what financial support is out there and to expose banks to information about federal farm loan programs.” Barrel races competitively. Went to Thailand on CASNR exchange trip. Accepted into grad school at UT for an M.S. in Agribusiness. After that, hopes to work in marketing with an agricultural company.

**Trent Jett,**
Senior in Forestry, Wildlife, and Fisheries from Ft. Walton Beach, Fla.

President of the UT Student Fisheries Association, which is newly established. Attended regional and state-level meetings of the American Fisheries Society. Graduating in May. On the horizon: “Getting married. That’s the only thing important to me.” Beyond that, he starts study toward an M.S. at UT in the fall. Wants to stay in the Southeast working in fisheries, preferably for a federal or state agency. “Probably the best part of this field is that you’re outside doing something to conserve the environment on a regular basis. And what little boy wouldn’t grow up and want to get to play in the creeks every day?”

**Denita Hadziabdlic Johnson,**
Entomology and Plant Pathology graduate student, Plants, Soils, Insects Ph.D. program from Sarajevo, Bosnia and Herzegovina

Survived the war in her homeland in the 1990s, came to UT for a M.S. degree and is now working on her doctorate. Research focuses on population genetics of flowering dogwood throughout the Southeast. Also looking into genetics of flowering dogwoods in the Smoky Mountains. President of her department’s graduate student association and helps out with the Tennessee Valley Science Fair. Goal: wants to teach at a small university.

**Joshua Jones,**
Senior in Food Science and Technology from Knoxville

Pre-professional student. Conducted research in the department during high school and throughout college, most recently on whether chitosan films, which come from shellfish, can clean water and remove toxic metals. Won second place in a graduate poster presentation at a national meeting. Student alumni associate. College bowl team. Plays trumpet in the Pride of the Southland Band. Aim is to attend medical school to earn a combined MD-Ph.D., possibly in gastroenterology and food microbiology.

**Leslie Sadeghi,**
Senior in Animal Science from Nashville

Internships in Australia, with the Tennessee Nature Center and the Nashville Zoo. Special problems study in poultry health in Guatemala. Accepted by veterinarian medicine programs in four states, chose UT, will be doing simultaneous master’s in...
Jessica Jarrell,
Junior in Agricultural Economics and Business from Mohawk

Peyton Manning Scholar. On the competition team and also secretary of the Agri-Business Club, which is a branch of the National Agri-Marketing Association. Former president of UT’s chapter of Collegiate FFA. Helps host high school students for FFA career development events. Involved in UT pep club. Plays volleyball and softball intramural sports. Coaches an

Abdoulaye Samba,
Junior in Biosystems Engineering from Dakar, Senegal

Active in the student chapter of the American Society of Agricultural and Biological Engineers. Serves on the design team for his department’s entry in the national Fountain Wars Competition. Tutored college-level math and placed second in a collegiate math competition. Does experimental research on the production of hydrogen using crude glycerol, a byproduct of biodiesel production, through catalytic conversion. “It’s exciting to me that I get to work on natural systems and such issues as bioenergy.”

Erin Byers,
Senior in Biosystems Engineering from Knoxville

Graduating this spring: “I’m so excited!” Working toward a career in sustainability engineering, whether it’s green building, energy efficiency, or biofuels. Senior project: With three other students designed, built, and tested a laboratory-scale piece of cotton harvesting equipment called a module builder that will be used for switchgrass biofuel research. Active in the American Society of Agricultural and Biological Engineers and did a project with Engineers Without Borders. Also traveled in Brazil through a World Wildlife Fund and Nissan program to learn about conservation, policy, and environmental work “from every angle you can think of.”

Stuart Wilson,
Senior in Forestry, Wildlife and Fisheries from Memphis

President of UT’s chapter of the Society of American Foresters. Organized the Association of Southern Forestry Clubs Conclave last year. Student representative to college’s Student Advisory Committee. Collected and analyzed data for faculty member on mine reclamation research. Worked part-time at UT Medical Center conducting histology for a lab that researches Huntington’s disease. Applying for graduate school in eco-physiology.

Jessica Jarrell,
Junior in Agricultural Economics and Business from Mohawk

Public Health. Going to Honduras this month on a medical mission trip with a veterinary doctor she’s worked with. “I want to be a veterinarian working with exotics or work in some capacity of public health with the government and Centers for Disease Control.”

Tracy Wilsonrich Maxey

Karen Jones

A. J. Haynes
A AAU girls basketball team. Plans on graduate school or a job “where I can be enthusiastic each day, get to work with people, do different tasks and definitely has to do with agriculture—whenever I find that job, then that’s the one.”

**Sasha Pfotenhauer,**
Senior in Animal Science from Bellevue
Outstanding Senior in her department. Balances study with work at a restaurant and community service. Assists professor with forage nutrition research. Secretary and meals chair for Block and Bridle and student council representative for the Student Cattlemen’s Association. Interned at the Stevenson Basin Angus Ranch, one of biggest purebred Angus operations in the country. Has a background in dairy farming and horses and wants to be a large food animal vet. Plans to work for a vet this summer.

**Paul Nolen,**
Veterinary Medicine DVM student from Memphis.
Organized and leads UT’s chapter of Veterinary Student as One in Culture and Ethnicity, or VOICE, which focuses on appreciating diversity and promoting unity among veterinary students. The organization engages in outreach to area schools.

**Sarah Smith,**
M.S. student in Agricultural and Extension Education from Hendersonville
Graduated as Plant Sciences’ most outstanding senior in ornamental horticulture and landscape design in 2006. American Society for Horticultural Sciences Collegiate Scholar, 2007. Volunteers at UT Gardens and at Bloom Days. For an undergraduate project, trained volunteers to assist in the Gardens and conduct tours and helped to develop training guides and informational brochures. Will work this summer as an Extension intern for the University of Georgia. Career goal: Work in agricultural education outreach.

**Gregory Wiggins,**
Entomology and Plant Pathology graduate student, Plants, Soils, Insects Ph.D. program from Wilson, N.C.
Researching the potential non-target impacts of introduced weevils on native *Cirsium* thistles. Also using geographic information system (GIS) to predict suitable habitats for native and introduced thistles to identify where non-target feeding on natives may occur. One of only 21 U.S. students to receive an EPA Greater Research Opportunities fellowship, worth $100,000 for his studies. Authored or co-authored six refereed publications, 10 non-refereed publications, and given more than 40 oral and poster presentations at professional conferences. Won a national prize for a poster presentation. Goal: Teaching or research, ideally at a small college or university.

**Dustin Lewis,**
M.S. student in Plant Sciences from Riceville
Led the UT Turf Club and helped it become formally recognized at the university. Interned at Medinah Country Club where he handled course maintenance and set-up for the 2006 PGA Championship. Achieved a perfect 4.0 in courses in his major. Now studying bermudagrass control strategies in zoysiagrass turf. First UT student in 18 years to receive a US Golf Association competitive grant to underwrite the research. “I was very lucky to get one and to be studying with it.” Goal: doctoral study or a career as a US Golf Association agronomist.

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Hort students plant hope for war widow

Green T club applies skills to good causes

It’s what happens when orange goes green—when classroom learning is transformed into compassion.

Some College of Agricultural Sciences and Natural Resources students are using their landscaping and gardening skills to help a woman who lost her husband in Iraq. “Green T” is a group of horticulture and landscape design majors who work in community service projects around East Tennessee, including Tonya Herrera’s house in Kingston. “We’ve been kind of blown away by the generosity we’ve seen from the community and from this group, Green T,” Herrera says.

Her husband Sgt. David Herrera was a Fort Campbell soldier who died when his Humvee was attacked in Baghdad. Now raising two daughters in her hometown, Herrera appreciates the work of Green T. “They picked things that will attract butterflies and birds, things that the girls really like, and it’s easy for Mom to take care of, which is really going to be good for Mom,” Herrera says.

Whitney Parks, a sophomore from Kingston, is one of the founding members of Green T.

This effort came about when Parks’ dad learned about the Herrera family, and told his daughter and other Green T members. “Basically it’s good for us college students to do because sometimes we focus on ourselves and kind of lose track of what’s important,” Parks says.

The Green T students also collected more than $4,000 worth of donated materials for this project. Every single garden center they contacted gave generously to help Herrera. Green T members are putting in flowers and mulch at the house, and also planted a weeping cherry tree. Students say their work is to honor Sgt. Herrera.

“What we did couldn’t even begin to repay for what he did, and the service he gave,” Parks says.

“His man laid down his life for our country. The least we can do is come out here and plant some plants and make his wife’s yard look better,” says Green T member Zeke Cooper.

““We want her to know we’re grateful for what her husband did for us and that there are people in this community who care about soldiers and the sacrifices they give for all of us,” he says.

Green T students receive no pay or academic credit for this, but they do get an “A” in thoughtfulness and the satisfaction of knowing they helped someone. In this case, it’s a young widow who is proud of her husband and now proud of her home.

– Chuck Denney
Jenna Manning has a $2,800 a month income, but bought a vehicle that costs her $900 a month. Nice wheels, but budget-wise the math isn't working here. She tries to trade the sleek SUV back to the dealer. “It’s not new anymore. I can’t sell it as new. You’ve already driven it off the lot,” he tells her.

The scenario isn’t real, but real enough to teach a “gotcha” life lesson punctuated with dollar signs. Jenna is one of the kids at DeKalb County High School going through a UT Extension program called “On My Own.”

“We’re learning how to spend money wisely and what you need to do first. Don’t go car shopping first” she warns.

Jenna and her classmates fast forward to the age of 25. They become the primary bread winner for their household and get a job and some money, but quickly learn they have to watch every dollar. More than 22,000 Tennessee kids were taught the curriculum in urban, suburban, and rural areas last year.

“On My Own” is just one money management program offered by UT Extension’s Family and Consumer Sciences Department. In a 2008 financial literacy test, Tennessee youth got only 45 percent of the answers right. Adults in our state aren’t doing much better money-wise. We led the nation again this past year in personal bankruptcies.

Martin wants kids to understand the connection between education and salary. “They start comparing different occupations, and some have so much more money left at the end of the month, and some don’t. That’s one thing we really stress to them—to really explore the different fields. The more education you have, typically the income goes up.”

By the end of the exercise, Jenna found a pre-owned SUV that fit her budget.

“On My Own” is just one money management program offered by UT Extension’s Family and Consumer Sciences Department. In a 2008 financial literacy test, Tennessee youth got only 45 percent of the answers right. Adults in our state aren’t doing much better money-wise. We led the nation again this past year in personal bankruptcies.
Building financial savvy

Throughout the state, UT Extension is working to help people keep more of what they earn in the “Tennessee Saves” program. A cooperative effort between UT Extension, state government and a number of banking and financial institutions, “Tennessee Saves” is changing the mindset and the lives of many people statewide.

“We were one of the first states to develop a statewide program in Tennessee Saves,” says Joe DiPietro, vice president for agriculture at UT. “We did that because of the need to help all people of all economic groups understand better the need to be financially solvent, the need to have a plan for their future and their financial security.”

For the first time since the Great Depression, the national savings rate is now in negative numbers: minus point-five percent, according to the U.S. Federal Reserve.

“American families are actually much worse off today than they were 30 years ago with rising health care costs, transportation costs, housing costs. So it really is important for them to save and to get that message as a whole family,” says June Puett, UT Extension agent in Hamilton County and a coordinator of “Tennessee Saves.”

“Tennessee Saves” teaches citizens to save money for retirement, education, and life’s emergencies. “We tell them it’s not going to be good to live paycheck to paycheck,” says Walter Battle, Extension Director for Haywood County. “Somewhere you have to save money for a rainy day because one morning you’re going to wake up and your car is not going to start.” –Chuck Denney

UT’s Institute of Agriculture recently produced a video about Tennessee Saves. You can view it at http://tennesseesaves.org

You Can Build Wealth
Winter tornadoes bring quick response by UT Extension
County agents coordinate relief efforts, organize support

When tornadoes ripped through Tennessee in early February, county agents with UT Extension did what they do best: mobilized support and helped to coordinate community resources.

In Macon County—hardest hit in the state—UT Extension Agent Steve Walker and members of his staff assisted a community that was devastated by the storm. A tornado there cut a 20.3-mile swath through the community, leaving a path of destruction that ranged from a half to three-quarters of a mile wide. One-hundred-seventy-five farms were damaged, 350 barns were destroyed. Miles of cattle fencing were down, hay blown away, and, needing the most immediate attention, dozens of residents were without shelter.

Walker and his staff quickly organized a support team to serve hot meals at the National Guard Armory. 4-H’ers pitched in, and UT Family and Consumer Science Agent Lynne Knight taught lessons about food safety to ensure meals made with food from thawing freezers and refrigerators were safe. The team organized a group of volunteers who continued to serve meals to displaced residents for the next two days.

Next, attention turned to livestock recovery. “Looking back several years ago, I underwent training on disaster,” Walker said. “I thought it wouldn’t relate to me, but in the aftermath of the storm, I recalled the training, especially on the livestock issues, and it proved very helpful.”

Walker appeared on local radio and gave out his cell phone number to those who needed assistance. He also put out a call for donations of cattle supplies and hay. Calls began pouring in. Next, he helped secure the Macon County Livestock Barn, which agreed to house animals from farms that were unable to keep them due to fencing, housing, or feed problems. And with a group of volunteers, including UT Extension agents from Clay, Putnam, and White counties, he began rounding up the cattle. Soon Disaster Animal Recovery Teams that included agents and volunteers from Bradley, Bledsoe, and Hamilton counties were on hand to assist with emergency livestock fencing, rounding up and handling livestock, and caring for companion animals. In all, 250 head of cattle were collected and brought to the livestock barn, where sales were organized. Some farms chose to temporarily house their livestock there until they could rebuild their fences.

In Knoxville, UT College of Veterinary Medicine student Caroline Smith contacted PetSmart Charities and arranged for 15 dog houses, cat and dog food, leashes, collars, and food and water bowls to be donated to Macon County. Other veterinary
Extension Agents deliver hay relief

From coordinating shipments to forage planting advice

When drought led to widespread hay shortages last summer, fall, and winter, UT Extension agents in 20 counties came to the aid of Tennessee livestock producers and owners by becoming logistics managers. Using their network of contacts, they identified out-of-state sources of hay and brokered transportation and distribution arrangements for the forage. Working with valued partners such as the Tennessee Farm Bureau Federation, Farmers Co-op, county commissions, Tennessee Cattlemen’s Association, and others, the agents coordinated plans to collect funds and serve the needs of those in dire need of hay.

“The majority of farmers in our county are pretty tough people, but when they saw that this was actually coming to pass, a couple of those guys had tears in their eyes to find out that somebody really cared,” Smartt said.

The hay relief efforts kept people in business, says Warren Farmers Co-op employee Josh Chandler. “Many people have come in and said without this I’d have had to have sold everything.”

Now spring rains would seem to have turned the tide, but that picture is deceiving, says forage specialist Dr. Gary Bates of the Department of Plant Sciences. Cattle producers have zero stored hay, many of their forage pastures are dead, and forage restoration efforts are struggling, hampered by problems seeding fields last fall, and now the high costs of inputs and fuel.

“We’re emphasizing warm season grasses, so that people can get some hay during the summer time and it will help them if we enter periods of mild drought, like we usually do,” Bates says.

“So we’re emphasizing use of summer grasses like pearl millet and switchgrass, which is a dual use—for forage and for biofuel feedstock. We’re also stressing the use of clovers, which will decrease the amount of nitrogen you have to apply, and we’re putting heavy emphasis on soil testing, to be more efficient with what you’re doing. And the other thing we’re really pushing is diversifying the species that producers are growing, so that they have some species to grow at every time of the year: cool season grasses during spring and fall, warm season grasses during summer, such as bermudagrass, switchgrass and pearl millet.”

Watch for Bates to deliver this message at this summer’s field days, including the Milan No-Till Field Day on July 24, and the Steak and Potatoes Field Day in Crossville on August 5. –Margot Emery with Chuck Denney. Photo by Steve McNeil.
On the home front
Extension helps ease the stress of Army family life

It’s almost a forgotten fact for some people, but thousands of American military men and women are still overseas, fighting a war—and life is not easy for the families they leave behind in the states. UT Extension has a program at Fort Campbell, Kentucky, to help military families, with a goal of reducing their emotional stress and financial worries while their loved ones are away.

Fort Campbell is home for the U.S. Army’s proud 101st Airborne’s Screaming Eagles. Here a war now in year five has brought about multiple deployments. Some of the 22,000 soldiers currently deployed are fighting overseas for the third, fourth, even fifth time.

“Our patriotism is a little on the up-and-up because we are frustrated with the war, but we love what our husbands do,” says Jessica Leonard. Her husband Lance is a captain with the Screaming Eagles’ Third Brigade Cavalry Unit. He’s back in Iraq, his third overseas deployment since 2002.

“Every day I’m reminded that he’s gone or someone else is gone or you hear on the news that so many were killed or this bomb exploded,” she says.

Leonard is a military wife and a UT Extension employee from across the border in Montgomery County, Tennessee. She’s one of 22 Extension people working at Fort Campbell, and Leonard is in the AFTB, or Army Family Team Building program. Its fundamental goal is to help military families while their loved ones are deployed, starting first with simple emotional support. “For me the trick is that gap. That gap of feeling alone, feeling that you don’t belong to anyone in this big military world,” she says.

“There’s really an emphasis on supporting families in the military right now. I think you’re going to see this program grow,” says John Bartee, UT Extension director for Montgomery County. “We assist families while their spouses are deployed and when they get back.”

Bartee adds that the Extension family has felt the harsh reality of war. “It’s a difficult situation, and we’ve had an employee who had a son killed in Iraq. It gets real close to you at that point,” he says.

It’s also a sad fact that many military families struggle financially as they serve our country. When you combine financial stress with the everyday concern of having a loved one deployed, it can make it tough to carry on here at home. The program also focuses on household budgeting, and how to increase cash flow. Often watching every dollar is critical.

“Extension counselors assist them with knowing where to locate services, how to manage their money,”

Booths at a deployment fair share information on everything from family finances to dealing with separation while loved ones serve overseas.
Bartee says, “Then in other areas we have people who teach spouses how to interview, how to dress, write a résumé, and help them find employment in the community.”

Another key element to the financial side of the program is debt reduction. Leonard likes the fact that the program gives information to help military families pay their bills.

“Hey, I’d like to pay off my credit card bills this deployment. You can sit down with a counselor for free and hopefully in that year or 15 months have that goal set aside,” she says.

Other areas in the program include relocation efforts, teaching leadership skills and bereavement services. The war may not affect all of us personally, but at Fort Campbell its emotional strain is part of everyday life. When the stress becomes overwhelming for military families, the least we can do is support them while their loved ones offer us their protection. –Chuck Denney

UT Extension’s Fort Campbell program is made possible by a grant from the U.S. Department of Defense.

▶ Being both an Army wife and UT Extension program assistant, Jessica Leonard (left) innately understands the needs of military families. Here she discusses Extension services with another Army wife.
Plant tips for coping with drought
Effects from last year’s weather still linger

Plants across the state are recovering from last year’s late freeze and drought. While spring rains have replenished much of the water supplies in West Tennessee, large areas of Middle and East Tennessee remain in prolonged drought. Seasonal rains have greened up lawns and helped trees, but the underlying problem of rain deficit remains.

What does that mean for Tennessee trees and shrubs? We asked tree and garden specialists with the Institute.

Is the damage from 2007’s freeze behind us?
“Actually, no,” says tree physiologist Dr. Jennifer Franklin. “Die back at the top of some trees and shrubs may not start to show until this year and next. Dead inner bark exposed the wood at the base of some young trees. If there’s more than a third of the trunk that’s dead, it’s not worth saving, but you might be able to cut the plant down and start again from root.”

Extension publications on pruning and dealing with bark splitting are helpful. These may be found online at http://utextension.tennessee.edu/publications/homeGarden/.

“We also saw impacts of the freeze in this spring’s ornamental flower show,” says UT Extension Area Specialist Carol Reese. “Certain plants bloomed very late this year, and others came out very early. It just seems like there’s a crazy reaction due to changes in water transport to plants injured by the freeze. They did not set the flower buds that we would normally see this spring.”

What do you recommend for maintaining plants during drought?
“The best remedy for trees in yard settings,” says Extension Forester Dr. David Mercker, “is to kill the grass directly under the tree crown and conduct slow and deep waterings twice per week at approximately 30 minutes at a time. Fertilization is normally best if conducted in the late winter months, prior to leaf emergence.”

For herbaceous plants that need a great deal of water, Reese recommends working polymers into the soil to retain moisture. When possible, group plants that need extra moisture together, to better conserve precious water resources.

Extension Urban Horticulture Specialist Beth Babbit advocates watering deeply to develop a good root system rather than shorter more frequent watering. Taper watering as the summer gets hotter because most plants will naturally go dormant as temperatures rise. “If your plants have deep roots and have been weaned from frequent watering, they should be fine. Only water when needed.” Signals to water include drooping, slightly wilted leaves or when the bright green color fades or the margins of the leaf are turning brown. At that point, offer the plant a good deep drink. You should only need to do this once a week for a well-established plant.

Following these principles, plants should make it through periods of low rainfall, yet juvenile and overly mature trees may have difficulty enduring continued drought. “Trees have an expected and somewhat predictable lifecycle, just like all living organisms,” Mercker cautions. “Water and fertilizer can’t prolong them indefinitely.”

With good fortune, rainfall will continue to ease drought woes. Much is needed to ease conditions in the central and eastern reaches of the state. –Margot Emery
We all get mad sometimes—at our family, friends, the world in general, and ourselves.

It’s unrealistic to say we should never experience anger. Instead the key is answering a pointed question: how do you deal with it?

Anger management is talked about in “Fitting it Together.” It’s a UT Extension program for juvenile offenders taught in several Tennessee towns.

In “Fitting it Together,” teenagers practice life skills such as dating etiquette, communication, and conflict resolution that may keep them from repeating mistakes. The youth learn from Extension agents and other counselors and also from each other.

“A lot of times when they come into the class, they’re very intimidated,” says Kelli Moore, UT Extension agent in Cumberland County, where she leads a class. “What we’ve seen through these classes is they kind of group together and it gives them the sense that ‘I’m not the only one that’s been in this kind of situation.’ So they open up to each other.”

“Fitting it Together” got its start in Hardeman County. There a juvenile judge asked Extension Agent Mary DeFoor for help in dealing with certain kids. Eighty young people went through the program that first year, and only two got in trouble with the courts after the classes. Extension agents do a follow-up with parents in the months after the program to see if the child’s behavior has improved. Now more than 300 teens have gone through the program statewide.

“Most of the time it’s not major offenses that are getting them in trouble. It’s bullying. It’s skipping class,” says Leila Myers, an Extension agent who teaches the curriculum in Union County.

“Fitting” isn’t designed to take the place of serious therapy, yet it does give troubled teens a new outlook on how to handle their lives. “The purpose is to let these juveniles or youth know that ‘Hey, maybe you do come from a rough background, a rough home life, but with skills that you can learn and develop and adopt yourself—then you can empower yourself. We can help you,” Myers says.

Another key component of the program is conflict resolution, especially on the home front, where teens must learn to successfully deal with their parents. “The goal is to make things at home run smoother and to break down some of those conflicts by building stronger communication skills,” says Taunee Whittenbarger with UT Extension in Cumberland County.

The National Extension Family and Consumer Science Organization selected UT Extension’s “Fitting it Together” program as its 2007 national winner in the category of community partnerships.

If you are interested in having a “Fitting it Together” program in your own community, contact UT Extension Area Specialist Judy Berryhill at (731) 425-4708. –Chuck Denney
Swimming and hiking and exploring nature—yes. But activities at Tennessee’s 4-H camps go far beyond these summertime favorites. Close to 6,000 Tennessee youth participate in summer camping activities at 4-H Centers in Columbia, Crossville, Greeneville, and Milan. Yet an additional 8,700 students, from kindergarten through eighth grade, make use of 4-H Centers in the fall, winter, and spring, when the camps become open-air classrooms for lessons in science and the environment.

Teachers appreciate the programs because they can customize the experiences to meet their classes’ needs and the curricula boosts their students’ knowledge of science and performance on Tennessee’s TCAP Achievement Tests. Youth love the programs because they’re fun and outdoors. The net result is that the centers are booked for activities close to year-round.

In its Camp Explore program, the Clyde Austin 4-H Center in Greeneville offers 30 different subject areas—from rocketry to fossils to lake ecology and woodworking. The program, which is offered in one-, two-, and three-day increments, seeks to build character as youth explore the environment.

Now in its eighth year, this self-sustaining program hosts about 130 schools across the region. “Our program has been received really well,” says Camp Explore Program Director Jerry Rhinehardt. “We have one county superintendent who budgets money for students to come from all that county’s schools.

“Our objective is to help the classroom teachers meet their objectives that are mandated for their grade levels in science by the state of Tennessee,” he adds. Judging by the repeat business it receives, the camp is succeeding in doing just that.

And, in case you’re wondering about summer camp opportunities for your children, they abound. 4-H offers junior camps for grades four through six and camps for sixth to eighth graders. Topics range from traditional camp fare (think s’mores, hiking and kayaking) to shooting and outdoor skills, wildlife and nature, electricity, sewing, clothing design, self-image and nutrition. Whew! That’s a lot. Most of the camps are booked for 2008, but it’s not too early to begin planning for next summer.

You can find dates, information, and even videos of 4-H camping programs at www.utextension.utk.edu/4H/centersandcamping/.

–Margot Emery with assistance from Carol McDonald
Tennessee’s agriculture is diverse with no single dominant crop. Farm income in Tennessee, as typically analyzed, is derived almost equally from crop and food animal sales. Principal crops usually included in such analyses are cotton, corn, soybeans, wheat, and hay. Such typical analyses, however, ignore a Tennessee crop that rivals, if not surpasses, revenue generated by other agricultural crops—the “green” crop of ornamentals and turfgrass.

An ever-urbanizing population’s interest in gardening, landscapes, and sports, such as golf and soccer, creates demand for plant material that supports thriving Tennessee nursery and turfgrass production enterprises. From a historical perspective, such activities are a fairly recent addition to Tennessee’s agriculture. In comparison to basic life essentials, golf courses and landscaped lawns might be considered luxuries, the enjoyment of which by much of the population has not always been possible.

One hundred and twenty-five years ago when the Tennessee Agricultural Experiment Station was established by the University of Tennessee, 80 percent or more of the United States’ population lived on farms. Efficiency of farmers was relatively low with each family producing only enough food and fiber to meet their needs and a fraction of the needs of one other family. With so much human effort required to feed the nation, labor for expansion of industrialization, the potential of which was beginning to be realized, was not available.

Agricultural research was seen as a means of overcoming this dilemma. By learning the fundamentals of how crops grow and applying that understanding to development of efficient cropping systems, the attention required for food production could be decreased and, thus, free people to pursue other endeavors.

This investment in agricultural research has paid off big time. Less than two percent of the people who live in the U.S. produce enough food to feed the nation and much of the rest of the world. Those of us who live in the U.S. today expend less effort to feed ourselves than did any of our ancestors. Less than 10 percent of an average annual income is required to provide food for an entire year. This has declined from 25 percent about 60 years ago.

Even though tremendous progress has been made, we haven’t seen anything yet. The understanding of the basic fundamentals of life that agricultural scientists are rapidly gaining offers potential for advances in the quality and quantity of food, fiber, and fuel that cannot today be imagined. While there is a firm commitment for an unflagging effort by UT Agricultural Research scientists to be prominent in the pursuit of advancement of the science of food, fiber, and fuel, pursuit of excellence in the science of turfgrass and ornamental horticulture will continue, and perhaps intensify, as well.

Problems stemming from a lack of scientific understanding often arise as the ornamental and turfgrass industry strives to meet the demand for plant material from people freed from spending most of their time and energy providing food for their families. It seems, for example, that plant disease is a never-ending problem. A few years ago when powdery mildew and anthracnose were threatening to destroy Tennessee’s dogwoods, UT Agricultural Research scientists responded with development of cultivars resistant to these disease organisms. Development of the disease resistant dogwood cultivars was a significant contribution to both home gardeners and the nursery industry, but a more
a disease will likely reveal new approaches for controlling or preventing plant diseases.

Such research requires the instruments and techniques of bench laboratories, the environmental control of greenhouse laboratories, and the cropping systems capabilities of field-scale laboratories. These same resources are used by our turfgrass researchers, who are working to make playing fields more durable and safe for athletes, while they also address useful and practical issues that impact the turfgrass industry, from golf turf and sod production to home lawn and commercial turf to turf breeding.

UT Agricultural Research provides 10 field-scale laboratories known as Research and Education Centers (RECs) to support the work of its scientists. The 10 RECs are distributed across the state and have capabilities for supporting livestock and/or crop production systems research. In recent years, support capabilities for ornamental horticulture and turfgrass research have been intensified at the REC at Knoxville and the REC at Jackson. These two RECs are the closest of the 10 in proximity to significant urban populations.

As their names imply, RECs are both research laboratories and tools for information transfer. In keeping with this latter function, the RECs at both Knoxville and Jackson annually have educational events designed to interest both lawn and garden enthusiasts and “green” industry professionals. Sod producers, golf course and athletic field superintendents, lawn care professionals, home owners, and others are invited to turfgrass specific field days. At these events, UT Agricultural Research scientists share the most recent understanding on such things as weed control, maintenance techniques for durability, most suitable grass varieties, etc.

In June, two to three thousand people come to the UT Gardens, the ornamental research laboratory at the REC at Knoxville, for the two-day Blooms Days event. Not only do they enjoy the beauty of the gardens, they also have opportunities to participate in workshops and attend lectures designed to help develop and better enjoy their personal lawn and gardens.

For 18 years, people have been coming out to the REC at Jackson on the second Thursday in July for Summer Celebration, an event similar in nature to Blooms Days at Knoxville. In 2007, almost 3,000 people showed up for the single-day event.

The large attendance at these events demonstrates the level of interest folks have in lawn and garden-oriented research. Even though it positively impacts their lives every day, most of the people at these events are unaware of the other research focused on food, fiber, and, fuel going on at the REC. Assuming that they might be interested, planners of Summer Celebration began a few years ago to offer overview tours of the broader research activities of the REC at Jackson. A tour wagon was provided and scheduled hourly for a 45-minute ride through the center while a scientist described the research they were seeing and explained its implication to them. The tour proved so popular, that a second wagon had to be added. The full wagons for every tour demonstrate that while people are attracted by the ornamental and turfgrass research, they appreciate that UT Agricultural Research remains committed to its broad mission of learning how crops grow and applying that knowledge to the improvement of systems for producing plentiful high quality food, fiber, and fuel.

Now and in the years ahead, UT Agricultural Research will continue to harness the creative energy of 130 Ph.D. faculty, specialized staff, and gifted graduate students to make the agricultural, forest, and ornamental industries more efficient, improve the quality of rural life, and conserve soil, water, air, and wildlife. And, as it does that, it will also meet the needs of the growing population of homeowners, athletes, sports facilities managers and others who hold interest in ornamental and turfgrass research—all research that shares the common aim to provide agricultural research solutions that advance the quality of life for everyone.

–Roland Mote, associate dean emeritus, UT AgResearch

Learn more about UT AgResearch in action by visiting http://AgResearch.tennessee.edu/.
Research in bloom
Study finds carefree roses for the Southeast

Roses are abloom by the hundreds in research plots in Jackson and Crossville, Tenn. There scientists with UT AgResearch are evaluating more than 200 rose varieties in a multiyear study. Their goal is to provide homeowners with a list of the most carefree roses for home planting.

Three years into the study, some general principles are known: Yellow-blooming roses are more susceptible to black spot and cercospora leaf spot than red. Whites are worse than yellow. Shrub roses perform better than hybrid teas. For climbers, good performers can be due to vigorous growth, not disease resistance.

Research specialist James Mynes oversees the U.S. Department of Agriculture-funded project at the two locations in Tennessee and in Poplarville, Miss. His research protocol is straightforward. “I plant the roses, water and fertilize them, and just wait and see when disease develops.” While his data evaluate the performance of 218 cultivars, only 20 actually qualify as easy-to-care roses for the Southeast. While a few others are rated as moderately resistant or tolerant to the diseases, most roses fail.

“Rose companies typically conduct their variety trials in very arid or colder climates, such as Arizona, Southern California, New York, or Ohio where, at worst, the humidity is between 15 to 20 percent or the growing season is short. Their plant materials looks great. But when you bring them to the Southeast, where it’s 70 to 75 percent humidity continuously along with a long, hot growing season, a lot of the plants aren’t disease resistant at all or marginally so at best.”

Casual gardeners have long steered clear of growing roses because they don’t want to spray for diseases and believe that roses are difficult. “And they can be,” Mynes admits.

“But if you choose with care, you can grow plants that perform as well five to 10 years later as they do during the first six weeks when any rose plant looks fine.”

Mynes advises to be cautious of grower claims for superior or excellent disease resistant, since those claims are often based on how the roses perform in areas with less disease pressure. Instead, he says, call your local Extension office, which has a list of UT’s latest research data, or visit http://soilplantandpest.utk.edu/publications/gardensolutions.htm.

—Margot Emery, Photos by James Mynes
Organically grown fruits, vegetables, and meat products represent a relatively small percentage of the overall food market in the United States—about 2.5 percent according to USDA statistics—but demand is skyrocketing.

Consumers are looking beyond the niche “natural food” markets and asking for organic foods in restaurants and mainstream groceries. What’s more, in many markets demand exceeds supply, and certified organic products command premium prices. In a year of rising grocery prices and general consumer unease about the U.S. economy, the jury is out on whether shoppers will pay premium prices for organic foods during difficult times; but experts with the University of Tennessee Institute of Agriculture are betting that demand will increase as the economy stabilizes.

To meet the needs of consumers and producers alike, the Institute has launched an organic farming initiative. Funding comes in part from a $1 million grant from the Tennessee Department of Agriculture to support education, research and market development. The grant will also allow for organic production demonstrations at UT Agricultural Research and Education Centers as well as on select private farms.

A goal of the TDA grant is to develop a model, regional-marketing framework that would involve farmers directly selling their products to interested restaurants, groceries, and consumers. The UT Center for Profitable Agriculture will assist in this effort, and Nashville will be the target market for the initial model. TDA officials hope to spread the concept to the state’s other four main urban markets.

Target commodities include tomatoes, cantaloupe, various ethnic greens, and sweet corn. Small fruits such as blueberries, blackberries and strawberries are also expected to be included.

“We are committed to serving the interests of the farmers, consumers and agricultural industry,” said Annette Wszelaki, UT Extension commercial vegetable specialist. “A segment of the population will always be interested in organically produced products, and this initiative opens the door for the UT Institute of Agriculture, as part of a land-grant institution, to serve that population.”

It takes a minimum of three years of detailed preparations for a plot of land to be certified as suitable for organic production. Dr. Brandon Smith, an assistant professor in the Department of Plant Sciences, has been working with Dr. Bobby Simpson and others from the East Tennessee Research and Education Center in Knoxville to convert some 20 acres of the center’s small grains unit to organic production.

“The first step was to plant suitable cover crops to prevent erosion and suppress weeds while building soil organic matter,” said Wszelaki. A portion of the small grains unit was
set aside last year, and last fall some 120 combinations of lupine, canola, mustard, vetch and other cover crops were planted to see which would perform best, given the growing conditions. This spring the crops were rolled under and evaluations of their performance are ongoing.

To complement the research and development efforts, UT Extension plans to hire an organics specialist to help Wszelaki with education and outreach. The TDA grant includes funding for a series of seminars to help producers understand the rigors of certified organic production.

“Tennessee producers are within 500 miles of half of the nation’s population,” said Wszelaki. “We plan to offer information on how they can touch—especially the smaller operations—some fairly lucrative markets with products that are in high demand.”

The initiative also expects to include efforts involving organic animal feedstocks. “There is tremendous consumer interest in labeling commodities as organically produced, including ‘natural’ beef,” said Joe Gaines, assistant commissioner for marketing for the TDA. “We want to help our producers capitalize on this potential market, and we want to assist consumers in locating and purchasing such products.” Organic meat and dairy products are free of antibiotics and hormones.

Organic foods can be purchased in supermarkets, farmers’ markets, buyers’ co-ops and even online. But buyer beware. Food certified under USDA regulations as organic must be produced without most synthetic pesticides and fertilizers under rigorous regulations. Antibiotics, growth hormones, and feed made from animal parts are also banned. Many foods labeled as “natural” or with all “natural ingredients” may be healthful, but they may not meet the standards set for certified organic production.

Did you know?

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On paper, he’s a seasoned lawyer with 52 years of distinguished service to his profession; she’s an avid gardener with a green thumb that makes others envious. In the hearts of animal lovers, James (“Jim”) and Josephine Holt (“Jo”) Webb have been dubbed the king and queen of animal welfare royalty, particularly cats. It’s almost as though the Webbs are driven to help animals.

In their 52 years together, (Jim jokes they could never divorce—they’d never agree on the custody of their cats) they have donated generously to local animal welfare organizations in their hometown of Cleveland, Tennessee, and recently devised their entire estate to the UT College of Veterinary Medicine, becoming members of the 1794 Society.

“We have given money to Pets are Lovable and The Ark of Cleveland,” Jim said. “And then we thought, ‘Why not give to UT?’”

Jim and Jo agreed the veterinary college and its people made quite an impression on them, “The college has provided generations of service. The gift will be used for jobs, education, and studies to make cats lives better for many years to come.” Jo said the gift will satisfy many purposes since a lot of the veterinary college’s work and research can be useful in the care and treatment of humans.

The Webbs’ support for animals goes beyond the financial. For years, their home has been open to many feline friends—not the high dollar ones, rather the “foundlings”—and their love of those kitties goes deep, according to Debbie Arp, long-time family friend and paralegal for Jim. “If they are ‘kittied up’ they’ll find someone who wants a kitty and pay for its healthcare for life,” Debbie explained, adding it’s a fortunate cat who crosses the Webb’s path. “They treat their kitties like people treat children. These kitties never want for anything, and they carve out time to play with them and love them each day.”

“Well, Josephine says if an elephant came up the driveway, I’d bring it in the house,” Jim joked. “I’ve loved animals since I was a child, rabbits and dogs. Cats intrigue me because they each have a different personality, just like people.”

The Webb’s gift will enable clinicians like Drs. Joe Bartges and Claudia Kirk to advance feline health.
Angelo, originally named Angel before his first visit to the vet, is afraid of people. Jim said he is “the biggest baby I ever saw in my life. Our little prissy independent lady cat, P.D.—for “polydactyl” since she has an extra toe on each foot—will prance by and for no reason “smack Angelo.” But if he had to choose favorites, no one beats Blackie, the almost feral cat who still refuses to go into the house but will acquiesce to joining Jim for conversation and a bowl of milk in the garage each day.

“One day the mayor was coming to present Jim with a proclamation,” Debbie started the story. “But Jim told me to tell him he was busy talking to his cat.”

Later in the morning, Blackie will find a shady spot and join Jo as she works in the yard, fulfilling her requirement to nurture and coax things to grow. Animals and gardening are two of her favorite things. “Growing up, I lived on a farm in Greene County. I just couldn’t imagine life without animals; they just warm your heart,” Jo said. She routinely tries to reunite baby birds with their nest in the springtime.

The Webbs’ gift is in memory of their son Jimmy. “He was much worse than I am with cats. He always had a lot.” Jim laughed as he recalled one incident in particular. “One day Jimmy was on his way to UT Chattanooga when he had to go back to the house to get a book, leaving his car door open. Halfway to Chattanooga he looked around to see a little cat in his car!” That cat remained with the family for years.

Animals have always affected the Webbs; their gift will allow them to affect the lives of countless cats for generations to come.

-Sandra Harbison
Like an owner of a new car, Dr. Robert DeNovo, associate dean for Administration and Clinical Programs at the UT College of Veterinary Medicine is a little protective of the newly opened 32,000 square-foot facility known as the John and Ann Tickle Small Animal Hospital.

Construction on the $10 million project began in February 2007. DeNovo says it was a long time coming and took long-term planning, squirrel-ing away funds, and revenue funding. “We’ve done this with the support of generous donors and friends and sound fiscal management that allowed us to develop a business plan to fund this,” DeNovo said.

With the snap of a ribbon in late April, the expansion was open for business. When the college was built more than 30 years ago, it was never anticipated that the facility would need to accommodate the approximately 15,000 small animals treated each year. Since 1978, the patient caseload has increased by more than 70 percent. Dr. Leon Potgieter, the college’s interim dean, said the hospital’s activities have long outgrown the available space. “We have needed this expansion for a long time to better serve our clients and to provide a better teaching environment for our students since state-of-the-art clinical services are difficult to provide in severely cramped quarters.”

In addition to an isolation suite for small animals with infectious diseases, the expansion includes medical oncology, radiation oncology, veterinary clinical oncology, canine physical and rehabilitation therapy, as well as avian and zoological medicine.

Among other disciplines, the college has a national reputation in avian/zoological medicine and canine physical rehabilitation and therapy. According to DeNovo, “The facility will allow the college to push the bar of contemporary educational standards to a new level.”

As animals age, their likelihood of being diagnosed with cancer increases, and the expansion provides
room to accommodate an already increasing caseload. Previously, medical and radiation oncology services were spread throughout the building. Now the services are side-by-side, fostering more collaboration and providing tremendous teaching opportunities.

Radiation oncology includes the only linear accelerator for veterinary use in Tennessee. The $1.5 million machine utilizes precisely shaped beams to irradiate tumors. Compared to older cobalt units, treatment time is a matter of seconds rather than minutes.

The college is still working to secure funding to renovate its intensive care unit and to expand its large animal teaching hospital.

UT Vice President for Agriculture Dr. Joe DiPietro said the veterinary hospital matches the caliber and class of the people who work there. “The veterinary program, like all programs at UT, is another window to the public,” he said. “Clients who come here see the university in a different light, and it’s important they see we’re on the cutting edge of veterinary medicine.” –Sandra Harbison
Alumni dream jobs

Institute graduates find their niche in remarkable places

Have you found your dream job? If so, we’d like to hear from you. Contact editor Margot Emery (agalumni@tennessee.edu, 865-974-7141) and tell her your story.

Some of the Institute of Agriculture’s graduates who are making a mark in their fields and loving every minute of it include:

Dr. Mili Bass, locum veterinarian

Bass, D.V.M ’81 says serendipity describes her career path, but it also involved a lot of thought and testing of the water. She was a television reporter and anchor when the desire to become a veterinarian overtook her. At the time, women vets were rare and the one female vet she had met didn’t encourage her, yet a summer spent riding horses and mucking out stables in Wales convinced her it was the right decision. After graduating from UT, she opened a practice in Farragut, Tenn. “It was my whole life, totally.” But later when opportunities arose to become a locum veterinarian (one who fills in for others), she took it and began practicing in such exotic locales as Hawaii and the Caribbean. She continues that today while also overseeing a boarding facility she co-owns that is dedicated to first-class care for cats and dogs, Dream Katcher Lodge in Knoxville.

Wade McMahan, president, Tennessee Timber Consultants, Inc.

McMahan, B.S. Forestry, Wildlife, and Fisheries, ’71, was district forester for 21 counties in West Tennessee during his 29-year career with the Tennessee Division of Forestry. Since 2001 he has been consulting with private woodland owners, farmers, and others on forest management projects, selling timber, and ensuring their interests are protected. “It’s a lot of fun, and I get to work with some really wonderful people. Although when I’m out in the rain, sleet, or snow, I wonder what kind of a job it is. It’s a good thing I enjoy it.”

Terry Niblack, professor, Univ. of Illinois at Urbana-Champaign

Dr. Niblack (above, right), B.S., horticulture and agricultural education, ’76; M.S., entomology and plant pathology ’82, was one of the first two women vocational agriculture teachers in Tennessee until a change in career trajectory sent her back to UT for graduate study. Today she is a professor of crop sciences at the University of Illinois at Urbana-Champaign and past president of the world’s largest and most respected society of nematologists. “The best part of my job is working with students and farmers. Part of my appointment is in Extension, so I work with field educators and other agri-professionals and sometimes directly with farmers on soybean diseases. The most important disease is nematodes.”

John Crouch, CEO, American Angus Association

Crouch, B.S. animal science, ’63, grew up working with Angus cattle on a beef and dairy farm near Jonesborough, Tennessee. Today he interacts with the beef industry in a different capacity, as chief executive officer of the American Angus Association, a non-profit organization in its 125th year of existence. His responsibilities are diverse and include working with the association’s board of directors in setting and implementing policies that enhance the position of angus cattle in the beef cattle industry. What does he enjoy most? “The interaction I have with the people in industry and our members in promoting new technologies for commercial producers to utilize in improving their product and increasing the efficiency of their operations.”
Seth Rye, attorney, consulting engineer

Rye, B.S. agricultural engineering, '98; M.S. in biosystems engineering '00, explored precision agriculture in his master’s thesis. In his career he balances precision in a different way—dual careers as an attorney and consulting engineer. “I always wanted to go to law school. It was a dream I put on hold while studying engineering. Then I became licensed as a professional engineer and supported myself that way as I worked through law school.” In his law practice he focuses on real estate and municipal law. As an engineer he specializes in water resource management and potable water systems. “Things maybe took a little different form for me than I thought they would, but I was able to blend lawyering and work as an engineer, and I use both skills together probably more than I think I do.”

Catherine Cosby, food safety quality assurance manager

Cosby (below), B.S. Food Science and Technology, '03, M.S. '05, oversees the food safety and quality assurance of pork and poultry products for U.S. Foodservice, a corporation that employs 27,000 nationwide. Most enjoyable part of work: “Ensuring the safety and quality of food products supplied to various restaurants and also supplier interactions—getting the opportunity to learn and understand supplier capabilities and product processing.”

Bryn Takle, horticulture manager, and Dr. Ginger Takle, resident in zoological medicine, Kansas City Zoo

Bryn Takle (above, right), B.S. public horticulture '05, spends his days tending 202 acres inside one of the largest urban parks in the nation. “A lot of new things happen every day. I learn what can go into exhibits, what animals can eat, what they can't eat but they eat anyway. It's always something new.” His wife Ginger (above, left), DVM '05, grew up knowing she wanted to work in zoos. “Part of what appeals to me is the conservation aspect of zoos. While I work behind the scenes, I know that zoos serve a greater purpose in educating people about these endangered animals in their natural habitats, so I'm in it for both sides.” Ginger is on her way to becoming board certified in the specialty of zoo medicine. Currently there are fewer than 120 such specialized doctors in the world, “so it’s really exciting to be part of something new and upcoming.”

Jane Howell, budget coordinator and legislative liaison, Tennessee Department of Agriculture

As a student, Jane Howell, B.S. agricultural economics, '04 explored the loss and fragmentation of farmland in Hamblen County, where she grew up on a third generation dairy farm. Today as a professional with the Tennessee Department of Agriculture, she’s working to preserve family farms, make farming more profitable, and increase the public’s awareness of the importance of agriculture. “I get to do all three, and that’s what’s rewarding to me.”
No-Till at 25

This summer marks the 25th anniversary of the Institute’s Milan No-Till Field Day. Born out of the need to preserve rich West Tennessee soil from erosion, no-till is a crop management system championed by UT in which a crop is planted directly into a seedbed that has not been tilled (plowed) following harvest of a previous crop. No-till can also mean planting a crop into sod, into the previous crop’s stubble, or into a cover crop when only the intermediate seed zone is disturbed. No-Till Field Days are opportunities to share the latest research findings with farmers and to celebrate the success of a farming technique that has transformed how corn, cotton, soybeans, wheat, and other crops are grown in the state and region. Join us for this year’s event on July 24 at Milan. More information is at http://milan.tennessee.edu/MNTFD/.

Known as the father of Tennessee No-Till, Superintendent Thomas McCutchen began researching the pioneering crop management system in 1965 on UT test plots in Milan.

Double cropping, such as soybeans planted in winter wheat stubble, is a popular no-till practice in West Tennessee.