AG illustrated
April 2011
Volume 8, Issue 2

NEVER TO YIELD—Draped with toilet-tissue streamers, the Auburn Nation's two most treasured trees stand tall over the thousands of fans who converged on Toomer's Corners Jan. 10 to celebrate the Auburn Tigers as the 2011 National Champions. And even then, the trees were dying. Calling the shots in the fervent fight to pull the trees through is the Toomer's Oaks Working Group. Of the 12 university faculty on that task force, eight are College of Agriculture and/or Alabama Ag Experient Station scientists. They include Gary Keever and Wheeler Foshee, both from the horticulture department; Stephen Enloe, Scott McElroy, Glenn Wehtje and Navin Twarakavi, all in agronomy and soils; and, from the School of Forestry and Wildlife Sciences, Art Chappelka and Scott Enebak.

The Oaks at Toomer's Corner

College of Ag, AAES Scientists Working To Save the Beloved Trees

by JAMIE CREAMER

One minute, Department of Horticulture professor Gary Keever was wrapping up another day at the office. The next, all hell broke loose.

The shocking news that Auburn University's treasured Toomer's oaks had been poisoned with a powerful herbicide and likely would die had leaked to the media less than 24 hours before a scheduled Toomer's oaks news conference, and the university's communications office needed Keever ASAP because reporters, most of whom were right on deadline, were clamoring for technical information and quotes from experts.

That was around 5 p.m. on Feb. 16, so you could mark that as the moment when life as Keever knew it changed, if not forever, at least for the foreseeable future. A day hasn't passed since that he hasn't had calls and emails, not only from reporters but also from scientific experts around the country, Auburn alumni and fans, people not affiliated with Auburn but outraged by the despicable crime and well-meaning individuals offering all manner of suggestions for saving the trees.

"I have 70 emails here that I haven't read yet, and I just finished writing down names and numbers from 48 voice messages," Keever says some three weeks after the news broke, "And probably 99 percent of those have something to do with the oaks at Toomer's Corner."

Throughout the unprecedented ordeal, Keever has served as the university's spokesman regarding the fight to save the two beloved, oft-rolled trees that have been the center of Auburn Tiger victory celebrations for generations of fans. He stresses, though, that by no means is he The Expert on the situation.

"I'm always speaking for the entire Toomer's Oaks Working Group," he says. (See sidebar.)

SO MANY QUESTIONS—College of Ag weed scientist Stephen Enloe, left, responds to a reporter's question at the Feb. 17 news conference that was held to confirm the shocking news that the two beloved oaks at Toomer's Corner had been poisoned with a lethal herbicide. Enloe and horticulture professor Gary Keever, right, were the designated expert spokesmen at the event. Several other College of Ag faculty are part of the working group that is making decisions in the effort to save the trees.

Keever always has had a passion for trees, and in recent years, he has worked closely with Auburn landscape supervisor and College of Ag alum Charlie Crawford to catalog every tree on the Auburn campus, develop a campus tree-care plan and establish a campus tree advisory committee.

It was Crawford who, on the night of Jan. 27, called Keever to say that some ranting and raving caller to Paul Finebaum's Birmingham-based nationally syndicated radio sports talk show that afternoon had boasted that shortly after Auburn beat Alabama in the 2010 Iron Bowl in late November, he had poisoned the two 130-year-old live oaks at Toomer's Corner.

First thing next morning, fully aware that some on campus thought he was overreacting to a lunatic sports-talk caller's tirade, Keever was at the famed intersection of College Street and Magnolia Avenue, collecting soil samples from beneath the two iconic oaks. Actually, he didn't blame his colleagues for their skepticism because, to be honest, he felt pretty certain himself that the caller had just been blowing hot air.

As the Auburn Nation now knows, of course, the soil test analyses that came back Feb. 9 did confirm that "massive and malicious" amounts of the potent tree-killing herbicide Spike 80DF had been deliberately applied to the Toomer's oaks.

Stephen Enloe, a weed scientist in the College of Ag's Department of Agronomy and Soils, has extensive expertise in herbicides, and in his research while at the University of Wyoming had worked with Dow Chemical's Spike 80DF. When he got a look at the soil test report and saw that Spike was the chemical that the perpetrator, now suspected to be 62-year-old Harvey Updyke of Dadeville, had applied to the trees, his heart sank. But when he read that the potent herbicide that is used only for total vegetation control had been detected in some of the soil samples from Toomer's at levels 65 times higher than the maximum recommended dose, that heart of his almost stopped.

"My first thought was, those trees are dead," Enloe says. "So I started calling several of my colleagues around the country, hoping one of them would say there was a chance we could save the oaks. But with levels that far off the charts and the assumption the herbicide had already been on the ground for two months at that point, they all said forget it; no way can those trees survive."

Had it been any other two of the 8,236 trees on Auburn's campus, the dying trees likely would have been removed. But these trees were the hallowed Toomer's oaks—an Auburn tradition, a symbol of Auburn's spirit and as much a part of Auburn University as Samford Tower, Ag Hill, the Auburn Creed and War Eagle.

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View from AGhill

I ran across an interesting statement in a book that I recently read. The author stated that in the next 40 years, the middle-class population of the world will grow from 1 billion to 3 billion people. Couple this with the fact that the global population is on track to exceed 9 billion people by 2050, and experts project that world food production will have to double in the next 40 years to meet demand. That's only 40 more cropping seasons! Interestingly, College of Agriculture students who graduate today will work an average of 45 years, while young faculty we hire today will work 35-40 years. Doubling food production will be the greatest challenge that they face during their working careers.

It is clear that we will have to develop some breakthrough technologies in order to dramatically increase food production. I recently toured the catfish industry in west Alabama where I visited several farms that were implementing the raceway technology developed at Auburn. These systems can triple the production of catfish in a pond and offer several other advantages from a management perspective. This is an example of breakthrough technology that we must focus on in the future.

Technological breakthroughs do not happen easily. It takes world-class facilities, faculty, students and funding. The college is in the process of developing several new facilities to support our research, teaching and outreach programs. This month we broke ground on a poultry and animal nutrition facility (see story on page 10). This $6.3-million facility will house a state-of-the-art feed mill and will allow us to develop and test revolutionary technologies in animal nutrition. It will also have a classroom for teaching nutrition technology to students and industry. In the fall, we anticipate breaking ground on the CASIC building, which will house state-of-the-art laboratories for renewable energy, genomics, environmental research and food safety programs. The biosystems engineering department is undergoing a $4.5-million renovation of lab space in the Corley Annex to support future programs.

I still have concerns on how we fund our programs. It is not clear how much funding Congress will eliminate for agricultural research and outreach programs as they try to cut spending. State funding for agricultural programs is down approximately 25 percent since 2008. These cuts come just as agriculture should be expanding its scope and breakthroughs to help feed and power an ever-growing population. It is important that our stakeholders continue to help our legislators understand the importance of funding agricultural programs!

Bill Batchelor
DEAN, COLLEGE OF AGRICULTURE
DIRECTOR, ALABAMA AGRICULTURAL EXPERIMENT STATION

(THE OAKS AT TOOMER'S CORNER, *from page 1*)

"We decided we would proceed as if we had a fighting chance to save them, and that's exactly what we're doing," Keever says.

Keever's been on Auburn's faculty for nearly 30 years, Enloe only since 2008. But it only took the latter one tree-rolling Toomer's Corner victory celebration to be "all in."

"Rolling Toomer's Corner, the atmosphere at that place, you have to experience it to believe it," he says. "When the Auburn family celebrates, it's like nothing I have ever seen anywhere. I love those trees."

Knowing that, you can understand why, while fielding reporters' questions alongside Keever at the somber Feb. 17 news conference, Enloe got emotional.

"We'd been up there (at the podium) for a while, but then a reporter looked at me and said, 'So will these trees live or will they die,' and time froze," he says. "The reality hit me that I was being asked to tell the Auburn Nation these trees weren't going to make it, and I choked up."

When he regained his composure, he answered the monumental question this way: "It's an emotional question. I always want to hold out hope. Based upon the technical experts I have consulted with around the country, the concentration of Spike found within the soil would suggest there's a very low probability."

The Toomer's story went nationwide, and by nightfall, Enloe was known all over the U.S. as "the emotional agronomist."

The majority of the national audience who read or heard about the poisoning of Toomer's oaks and the emotional reactions by Enloe and others couldn't possibly grasp the magnitude of the poisoning. But in the days following the news conference, Enloe was bombarded with emails from Auburn faithful across the country, thanking him for his obviously genuine passion. It was his official welcoming as a fellow citizen of the Auburn Nation.

A FAMILY AFFAIR—Members of the Auburn family pause to show their respect under the Toomer's oaks.

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Details

Ag Illustrated is a bimonthly publication of the Auburn University College of Agriculture and the Alabama Agricultural Experiment Station. It is compiled and published through Ag Communications and Marketing, the College and AAES information office. This publication is printed on Sappi® Opus Matte paper, which is Green Seal certified.

Subscriptions to Ag Illustrated are free and are sent automatically to Ag Alumni Association members. To become a member, go to www.ag.auburn.edu/alumni/. To subscribe, fill out the form below or visit our website at www.ag.auburn.edu/agillustrated. You may also contact us about subscriptions or other editorial issues at Room 3 Comer Hall, Auburn, AL 36849; 334-844-5887; or agcomm@auburn.edu.

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Innovations

A Smooth Touch

Student Uses Sports Massage Therapy To Help Horses Hit Their Stride

by JAMIE CREAMER

Maggie Salter probably never had to stop and think of something to wish for when she blew out the candles on her birthday cake every year. She just wished for the same thing she wished for all of the other 364 days of the year: She wanted to ride horses.

She must have wished extra hard on her 10th birthday, because by the time her 11th rolled around, she was taking horseback-riding classes and on her way to becoming quite the equestrian. Many lessons and a few horse camps later, having convinced her mom that her passion for horses was not just a passing fancy, Salter was given a horse of her own. The horse's name is Anna, and she and her owner have been together ever since.

"Horses have always fascinated me," says Salter, a December 2010 magna cum laude graduate of Auburn University equine science graduate. "It's something I can't explain, but they inspire me. They're majestic, they're high spirited. All I have to do is touch a horse, and everything around me calms down."

A REAL HEAD-TURNER—New Auburn equine science alum and soon-to-be grad student Maggie Salter turns Harriet the horse's head one way and then the other during a therapeutic massage session. The technique helps relax muscles, relieve tension and improve range of motion in a horse. Salter says a thorough equine massage takes anywhere from an hour to an hour and a half to perform.

And if horses could talk, they'd probably say, "Back atcha," at least on the touch part. Salter is a certified equine sports massage therapist, and since earning that certification almost two years ago, she has used her techniques to help many a horse heal and chill.

"Sports massage is soft-tissue therapy that helps loosen and relax tense muscles and relieve muscle spasms and soreness," Salter says. "It also helps blood circulate, and that's especially important in healing as well as preventing injuries."

Considering that horses are 60 percent muscle, equine massage therapy makes a lot of sense, but it wasn't until the early 1980s that the late Jack Meagher, a renowned sports massage therapist for athletes and coiner of the term "sportsmassage," introduced the concept for high-performance horses. Salter first heard of the concept a few years back when an equine massage therapist appeared on one of the network morning news shows. Needless to say, she was intrigued.

Salter graduated from high school in her hometown of Milton, Fla., in 2006, but she had started taking college classes at a local junior college in high school, and by the time she got her high-school diploma, she already had earned her associate's degree. Career-wise, she had thought for a while that she wanted to be a math teacher, then began leaning toward a biology degree and finally started toying with the idea of veterinary medicine.

"I knew I could do well in vet school," she says, "but my heart just wasn't in it." What the lifetime Auburn fan's heart was in, of course, was horses, and the day she saw the news online that Auburn's Department of Animal Sciences would be offering an equine science program as of fall 2006, her future was set—IF she found a way to jump the only huge hurdle that stood in her way: out-of-state tuition costs.

The College of Ag's outstanding scholarship program allowed her to clear that hurdle, and she enrolled in Auburn's equine science degree program. In the summer of '09, she had the opportunity to attend an equine massage therapy school in Virginia, where she earned certification. In the 50-hour training program, Salter learned equine massage techniques and how to apply them as well as the basic physiology of equine muscles, the locations of major muscles and muscle groups, how to detect muscles that need attention and specific conditions that can occur when muscles become stressed.

OH, MY ACHING HEAD—Harriet, a horse at the Horse unit, has a headache. Certified equine massage therapist Maggie Salter can tell by looking at the horse's eyes. The area around Harriet's left eye is puffy, which means there's fluid buildup and, thus, pressure. Therapists avoid massaging the head, but Salter says gently tapping a specific area on the forehead helps relieve the pressure.

Salter—who, unless someone can prove otherwise, is the sole certified horse masseuse on campus—will start graduate school in equine science at Auburn this coming fall. Meanwhile, she is doing business as Inspiration Equine Massage, and stays relatively busy at horse shows and competitions.

"To me, massage therapy feels like it comes naturally," Salter says. "It gives me connectivity to the horses and makes me feel good because I know I'm helping keep them healthy and performing at their best."

Salter believes there is a growing awareness among horse trainers and owners, professional and amateur, that there may be something to equine massage therapy and its benefits.

"It increases their range of motion and flexibility, improves their muscle tone and circulation and helps ease pain," Salter says. "As you're working on a horse, you can actually feel them relax."

That's not just a sales pitch, either, says Auburn equine scientist Betsy Wagner, assistant professor of animal sciences.

"Equine massage has been used by top trainers and athletes for many years, and we are seeing it become more popular with the train-at-home amateur competitors now," she says. "Much like massage for human athletes, it can help loosen and relax sore muscles making the horse a more comfortable and willing performer."

Several years ago, Wagner was suffering from back muscle problems and massage therapy helped her treat and manage the pain.

"Knowing what it did for me, I jumped at the opportunity for a massage for my horse at the time," she says. "She didn't have any specific performance issues, but the massage did help to free her shoulder movement and loosen her back.

"Should I go back to training and competing regularly at some point, I would consider massage part of my overall management program for my performance horse."

Anybody with horse sense might want to think about that.

FULL-BODY MASSAGE—Horse masseuse Maggie Salter uses an open-palm compression technique on Harriet the horse's barrel muscles. Every horse is different and that includes their reactions to massage. In her experiences, Salter says she's had one horse fall asleep during a session, but there was another one "where I felt like I was dancing with the horse instead of giving him a massage."

Faculty and Staff Accomplishments

Jimmy Holliman, director of the Black Belt Research and Extension Center in Marion Junction, was elected vice president of the Alabama Cattlemen's Association during the 68th Annual ACA Convention and Trade Show held in Montgomery in February.

Henry Kinnucan, professor in the agricultural economics and rural sociology department, spent the week of Dec. 13 in Norway conferring with faculty on a research project to forecast international prices for white fish. While there, he presented three graduate lectures on quantitative policy analysis.

Dennis Brothers was named poultry housing specialist with the National Poultry Technology Center at Auburn University. He will serve poultry growers and managers across the state of Alabama and is based in Oneonta.

Seven College of Agriculture faculty members have been granted promotions and/or tenure, effective fall semester 2011. **Kathy Flanders** and **Xing Ping Hu,** both in the Department of Entomology and Plant Pathology, and **Lee Chiba** in the Department of Animal Sciences have attained full-professor status. **Elina Coneva** in horticulture, **Stephen Enloe** in agronomy and soils and **Manpreet Singh** in poultry science have been awarded tenure and promoted to associate professor. In addition, **Terrill Hanson** in fisheries and allied aquacultures has been granted tenure.

Scott McElroy, associate professor and researcher in turfgrass weed science in the Department of Agronomy and Soils, won the Southern Weed Science Society's 2011 Outstanding Young Weed Scientist Award at the organization's annual meeting in Puerto Rico earlier this month.

Patricia Duffy and **Deacue Fields,** both faculty members in the Department of Agricultural Economics and Rural Sociology, were recognized during the Southern Agricultural Economics Association meeting in Corpus Christi, Texas, in February. Duffy was recognized with the SAEA Lifetime Achievement Award. Fields was recognized with the Outstanding Extension Program Award.

Patricia Curtis, professor of poultry science, was named director of the Auburn University Food Systems Initiative, a collaborative effort between the Office of the Vice President for Research and the Alabama Agricultural Experiment Station. She will coordinate projects among faculty across campus and at other partner institutions across the U.S. (See story on page 6).

Steve Taylor, professor and department head of biosystems engineering, and a team of other scientists at Auburn and from the University of Tennessee, North Carolina State University and Arborgen and Ceres recently presented a video proposal entitled Biofuels Solutions for the Southeast to the Agriculture and Food Research Initiative competitive grant program. View the video at www.auburn.edu/research/ibss/. **David Bransby**, professor of agronomy and soils, was also a finalist in the AFRI grant process. Information on the AFRI grants is available at www.nifa.usda.gov/newsroom/news/2011news/01071_afri_rfa.html.

A WIN-WIN SITUATION—Here's one for the 2011 edition of Guinness World Records. Auburn University faculty members Elaine and Dale Coleman could be the first husband and wife ever to win top teaching awards in two different colleges at one university at the same time. Dale Coleman, associate professor in the Department of Animal Sciences, was presented the College of Agriculture's Dean's Award for Teaching Excellence in late 2010; shortly thereafter, his wife, associate professor of veterinary anatomy and neuroscience in the College of Veterinary Medicine, was named winner of that college's Dean's Award for Excellence in Teaching. Dale Coleman also recently won the Region 4 National Academic Advising Association's faculty advising award.

Student Accomplishments

Elizabeth Simmons, a freshman majoring in agricultural communications, has been named a student ambassador for the Agriculture Future of America program. She will assist with the fall AFA Leaders Conference, which she attended in 2010 as a delegate (www.agfuture.org).

Auburn's Poultry Science Club brought home the 2011 Club of the Year award from the 2011 International Poultry Expo in February. The club also placed second in the scrapbook competition. The award is based on the club activities for the past year, including community involvement, education and outreach, fundraising and general activities. Learn more at www.ag.auburn.edu/poul/deptnews.html.

The 2011 Saddle Up for St. Jude Trail Ride, sponsored by the Auburn University Horseman's Club in March, raised more than $1,000 for the St. Jude Children's Hospital.

Animal sciences student **Josiah Greene** has established a fundraising website for the family of his adviser, animal sciences associate professor Lee Chiba, whose family is affected by the earthquake and tsunami in Japan. Learn more at www.aufamily.com/forums/topic/72781-auburn-professor-needs-support.

Jared Hoyle and **Hunter Perry,** both doctoral students in agronomy and soils, claimed top honors in student competitions during the Southern Weed Science Society's 2011 meeting in February. Hoyle placed first in the Ph.D. poster contest, and Perry finished second in the oral Ph.D. paper category.

Lana Smith, a student in animal sciences, won the undergraduate student competition at the southern region meeting of the American Society of Animal Science held earlier this month in Texas. Animal science students **Sam Belanger, Hobie Wilson, Ashley Thompson** and **Katie Young** also participated at the ASAS Southern Regional Academic Quadrathlon placing fourth in the bowl and practicum sections. Congratulations to all these students!

From left, Quadrathlon team members Katie Young, Hobie Wilson, Ashley Thompson and Sam Belanger

Emily Brennan, a junior, from Jacksonville, Fla., majoring in animal sciences has been chosen as a 2011 Barry M. Goldwater Scholar. The scholarship, given annually to only about 300 students nationwide each year, is widely considered the most prestigious award in the United States for undergraduates in science, technology, engineering and mathematics disciplines. Read more at www.wireeagle.auburn.edu/news/2330.

Animal sciences students spent spring break learning more about animal agriculture in Texas, visiting agricultural colleges, businesses and farms related to animal science and agriculture in general. View photos of their trip to the Lone Star State: www.ag.auburn.edu/ansc/students/current/springbreaktour.php

Kate Derby, of York, Ag Council president and a senior in animal sciences, was awarded the Joel Daniel Hardee Award, given each year by the Hardy family to the outgoing Ag Council president. Pictured, from left, are College of Agriculture Dean Bill Batchelor, Joel Hardee's sister Mary Collins, Derby and Justin Hardee, son of Joel Hardee.

Katherine Pittman, an animal sciences pre-veterinary medicine major from Hazel Green, was awarded the Wiley C. Johnson Award, named in honor of the late agronomy and soils professor Wiley Johnson to an outstanding Ag Ambassador. Pictured, from left, are College of Agriculture Dean Bill Batchelor, Pittman and Wiley Johnson's sons Carroll and Calvin.

Environmental Science Program Now Administered by College of Agriculture

While feeding the world's growing population might be the greatest global challenge in the next 50 years, a close second is protecting the land—cropland and ecosystems—under the stress of increased production.

Educating students who can safeguard soil, air and water resources is the goal of the environmental science program, which is being administered through the College of Agriculture's Department of Agronomy and Soils effective spring 2011.

"Protecting the land requires a diverse, complex and significant level of expertise," says Wes Wood, agronomy and soils professor and coordinator of student advising for the program.

"Our environmental science program provides students with a broad-based general education, a solid background in mathematics, physical science and biological science; a wide exposure to the environmental science field; and a depth of knowledge in a specific area of environmental science of their choice," says Wood.

Within the program, students can select from groups of courses, called professional tracks, that emphasize environmental applications of biological science, physical science, soils science or engineering science. A general environmental science track is also available.

"The College of Agriculture is pleased to be charged with the responsibility to administer this program, which is consistent with the college's mission," says Paul Patterson, associate dean of instruction. "Issues related to food and fiber production have always had related environmental implications. Much of the research in the College of Agriculture focuses on the interface between agriculture and the environment. We look forward to working with the environmental science students and with the other colleges that help support this interdisciplinary program."

Seven students will graduate from the program in spring 2011, currently 31 students are enrolled and 81 students have been admitted in environmental sciences as either freshmen or transfer students for summer or fall 2011.

"There is strong student demand for this type of program," says Patterson. "Today's students are concerned about the global challenges we face in food production and environmental sustainability. They want to make positive contributions to society in their professional lives."

The environmental science program is specifically tailored to produce graduates who can enter and have a reasonable expectation of success in a field that is continually changing. Environmental science graduates are well prepared to enter the work place or to pursue graduate studies in a wide variety of fields.

Recent graduates have found positions with regional and national manufacturing companies, consulting engineering firms and a variety of national, state and local governmental agencies. Typical entry-level jobs range from working outdoors taking environmental samples to analyzing environmental samples in a laboratory setting, from evaluating waste disposal sites to writing environmental impact statements and from operating waste-treatment facilities to managing hazardous material inventories.

The environmental science program remains an interdisciplinary program with participation from the Samuel Ginn College of Engineering and College of Sciences and Mathematics, whose faculty are partners in developing the curriculum, guiding student development and providing instruction.

ENVIRONMENTAL PERSPECTIVE—Eve Brantley, assistant professor in agronomy and soils and adviser for the interdisciplinary environmental science program, and Jof Mehaffey from the multidisciplinary company Goodwyn Mills and Cawood study aquatic macroinvertebrates found at a recently constructed stream and floodplain restoration site on Saugahatchee Creek—a task typical of students in the environmental science program.

Temple Grandin
A Life-Changing Visitor

Temple Grandin, the autistic animal scientist who was the subject of a 2010 Emmy Award-winning HBO movie, visited the Auburn campus March 30-April 1 and, according to many who heard her speak, she changed some lives.

Grandin was the E.T. York Distinguished Lecturer for spring 2011 and her public lecture drew more than 750 people from across campus and across Alabama. She also spoke to more than 500 high school students who were on campus for the annual Ag Industry Day event, more than 30 graduate students in the Women in Science and Engineering program and several hundred College of Education students and faculty.

Many who heard her speak said that her lectures literally changed their lives by giving them new perspectives on animals, agriculture and autism.

The lecture series is sponsored by E.T. and Vam York, both Auburn alums who, in 1981, established an endowment for the College of Agriculture to bring internationally known scientists and experts speaking on a wide range of topics at public and technical lectures and seminars on the Auburn campus.

To learn more about the York series go to www.ag.auburn.edu/yorklecture. The fall 2011 lecturer is Gebisa Ejeta, a Purdue University agronomist and recipient of the 2009 World Food Prize.

GIVING VOICE TO IDEAS—Temple Grandin, a best-selling author, acclaimed animal scientist and advocate for autism, gave voice to a wide range of ideas and issues when she spoke to students, faculty, staff and members of the community for the York Distinguished Lecturer Series in March.

A CLOSER LOOK—During the tour of the meats laboratory and beef teaching units, Grandin spent time looking closely at the facilities and offering advice on their design and construction.

EXPERT ADVICE—While on the Auburn campus, Grandin toured Auburn's Wilson Beef Teaching and Lambert-Powell Meats Laboratory facilities with Barney Wilborn (left) manager of the meats laboratory and the beef unit, and Wayne Greene (center), head of the Department of Animal Sciences who helped arrange Grandin's visit to campus.

ONE-ON-ONE—Grandin not only spoke from the podium, she also visited one-on-one with many students, professors, staff members and visitors who came to hear her speak.

New Customer-Service Survey Available To Farm Co-ops

By JAMIE CREAMER

For farmer-owned farm-supply cooperatives across the state, the steady transition of Alabama farmland into subdivisions and shopping centers has gradually changed their customer base—from farmers who buy production supplies at wholesale prices to homeowners, gardeners, hunters and others looking for a broad range of other, non-farm products.

Most co-op managers have responded to the shift by adding retail products and services that fit the needs of the local community. To improve their competitive position in the marketplace, it's essential that they understand their evolving target market's expectations in terms of customer service quality and then adjust their business approach to meet those expectations, Auburn researchers have determined.

CHANGING WITH THE TIMES—In a move to replace lost revenue resulting from the dwindling numbers of farmers in their customer base, savvy farmers co-op managers in Alabama have expanded their inventories to include retail products that meet the needs of homeowners, avid gardeners, wildlife enthusiasts and others in their local community.

And in making that determination, AAES agricultural economists Norbert Wilson and Deacue Fields and former Auburn ag economics graduate student Thomas Hall have identified a tool that managers of farmers co-ops and similar rural retail operations can use to find out which aspects of customer service are most important to their customers and gauge how effectively they are fulfilling those expectations.

The tool is a 29-question survey the researchers adapted from one that major retailers in highly populated areas use to assess their performance in delivering the services their shoppers value most. The survey is based on a retail service quality scale that defines five dimensions of service quality: physical appearance, reliability, personal interactions, problem-solving abilities and policies.

"Our study was to establish whether this scale could be applied to farm co-ops located in rural areas," Wilson says. "Our results suggest that, yes, it is readily applicable, and also easy to use."

For their study, the Auburn research team modified the large-merchant survey to gather data on the demographics of a co-op's broad and diverse customer base and how customer characteristics influence the types of service quality that different customers value most. And instead of five service quality dimensions, they grouped those aspects into three dimensions: customer service/personal interaction, appearance/accessibility and policies/reliability.

The survey was mailed to randomly selected member-patrons at various co-ops around the state. There are 44 farmer-owned cooperatives with about 80 locations statewide; all are members of the Alabama Farmers Cooperative, which provides products and services to its co-op members in Alabama and the Florida Panhandle.

Survey results indicated that, overall, co-op clientele deem customer service/personal interaction the top factor in service quality.

"This was especially true among homeowners," Wilson says. "When they go to a co-op, they want individual attention from employees, and they want those employees to be friendly, courteous, prompt and knowledgeable.

"They also expect high-quality merchandise they can count on being in stock when they need it as well as hassle-free returns or exchanges," he says.

By surveying their clientele, individual co-ops will know what service quality aspects are most important to their member-patrons and focus on improving in that area.

Initiative Aims At Improving Safety Throughout Food System

By JAMIE CREAMER

Auburn University's Office of the Vice President for Research and the Alabama Agricultural Experiment Station have collaborated to establish a campus-wide initiative that will integrate research, academics and outreach to make Auburn a leading contributor to the safety and quality of the nation's food supply at all levels, from producer to consumer.

The new Auburn University Food Systems Initiative's goal is to maximize the university's internal strengths by encouraging and coordinating interdisciplinary research partnerships and funding pursuits aimed toward developing advanced technologies and practices for detecting, tracing and preventing foodborne hazards.

Auburn poultry science professor Pat Curtis has been named director of the initiative and in that role will coordinate projects among faculty across the Auburn campus and at other partner institutions across the U.S., including other universities, industry, consumers and state and federal governments.

"The international food system is a complex global structure that moves locally produced food around the world every day and is comprised of many companies who purchase, process, package, market, distribute and sell food and food products around the world," says Bill Batchelor, director of the AAES and dean of the College of Agriculture at Auburn. "Through the Food Systems Initiative, Dr. Curtis will develop projects to solve major problems related to the food system that are important to Alabama, the nation and world."

Through the initiative, researchers will focus on developing technologies and best practices that will contribute to food safety in the core areas of aquaculture, seafood, egg, poultry and beef safety as well as pathobiology, detection technology, nutrition and economics.

A distinguishing characteristic of the new initiative is that, through academic and Extension programs, technology transfer and community meetings, innovations and discoveries researchers develop will be communicated to farmers, processors, suppliers, distributors, government and consumers.

A NEW ROLE—Patricia Curtis, professor in the Department of Poultry Science, is directing a new, campus-wide food systems initiative aimed at making food safer.

In addition, for Auburn students who are seeking degrees in disciplines related to food safety, the initiative will enhance their educational experiences, both in classrooms and in research labs.

Index Will Help Cities Take Steps To Ease Droughts' Impact

By JAMIE CREAMER

In the Southeast, where droughts are as much a part of summer as gnats, public water-supply shortages are a major concern for municipalities. But in a National Oceanic Atmosphere Administration-funded research project led by Auburn biosystems engineer Puneet Srivastava, scientists are using seasonal-to-interannual climate variability and forecasts to develop a technology that will help cities, towns and communities prepare in advance for those inevitable long dry spells.

HIGH AND DRY—A water-monitor index researchers are developing will help water managers in Auburn and other small and mid-size cities evaluate and prepare for droughts.

The tool they are working to create is a municipal water-deficit index that water-system managers in small and mid-size cities could use to monitor the severity of a drought, forecast when it will end and adjust their management plans in ways that could ease the drought's impact on their systems and their customers.

"If city officials know how intense a drought is going to get and how long before they can expect some relief, they could take measures months ahead to mitigate the drought's impact, such as start imposing mild restrictions on customers' water usage well before extreme drought conditions," Srivastava says.

Srivistava and a team of researchers from Auburn, NOAA's Climate Prediction Center and the universities of Florida and Georgia are collaborating on the study, which specifically targets cities that have populations under 100,000 and rely on surface water for their supply. The city water systems of Auburn and Griffin, Ga., are participating in the project.

Drought is considered to be greatly influenced by the El Niño–Southern Oscillation climate pattern, particularly the La Niña phase. Warm and dry conditions between October and April accompany La Niña conditions, and in the Southeast, where states depend on water recharge during cool weather, the result is extreme multiyear drought.

"La Niña typically returns every two to seven years, which is why drought is a recurring phenomenon in the Southeast and why drought preparedness is essential for city water systems," Srivastava says.

In addition to developing the index, the scientists will evaluate water managers' climate information needs, perceptions and attitudes and identify currently used drought mitigation policies and innovative local, county and state-level policy options.

New Auburn-Developed, Wildlife-Attracting Chinese Chestnuts Debut on Market This Fall

By JAMIE CREAMER

An Auburn University research project that began more than 75 years ago has yielded six new Chinese chestnut varieties and two dwarf cultivars that have been selectively bred to drop an abundance of high-quality nuts in succession from late August through November, providing a continuous high-energy food source for wildlife throughout the fall.

GET THE PICTURE?—Auburn horticulture professor and veteran Alabama Ag Experiment Station researcher Billy Dozier takes close-up shots of a young bur-loaded AU Buck III Chinese chestnut tree growing in a research orchard in Camp Hill. Dozier took the photo about 10 years ago when long-time horticulture professor and chestnut research leader Joe Norton retired and Dozier took over the long-term project.

When the new cultivated varieties hit the market this fall, they will come as package deals. Four of them—AU Buck I, AU Buck II, AU Buck III and AU Buck IV—produce large crops of medium- to large-sized nuts and will be marketed together as the Chinese chestnut deer package. The other four—Gobbler I, Gobbler II and the two dwarfs, or seguins, AU Premier and AU Encore—bear smaller chestnuts that are ideal for wild turkey and together will comprise the turkey package.

"These cultivars have been developed for wildlife purposes," veteran Auburn horticulture professor and researcher Billy Dozier says. "They have staggered chestnut-drop dates, so if you plant all the trees in a package together in a group, you'll have a constant supply of chestnuts on the ground all the way from about the end of August on up till the end of November every year."

Auburn's Office of Technology Transfer, which serves as the link between Auburn researchers and the commercial marketplace, has licensed the patented cultivars to The Wildlife Group, and that Macon County nursery will introduce limited supplies of both the deer and the turkey Chinese chestnut packages to the market later this year.

Though each of the cultivars has been developed for its specific desirable traits, all share several important characteristics that make them an excellent option for landowners looking to enhance wildlife habitat on their property. They are prolific, highly adaptable, blight-resistant trees that grow quickly and produce large crops year after year. Plus, they need little to no maintenance.

"They're easy to grow," Dozier says. "We don't use and never have used fungicides or insecticides on any of our chestnut trees, and through all these decades, we haven't found a disease or pest yet that bothers them."

With the exception of AU Premier and AU Encore, the new varieties grow to heights of 30 to 40 feet. As seguin cultivars, the Premier and Encore average only 15 to 19 feet in height. The chestnuts produced by the different trees vary in size, but Dozier describes the taste of all the cultivars as "excellent, very sweet."

Wildlife apparently agree.

"We couldn't get accurate yields on these cultivars because of extremely heavy wildlife feeding, so we rated the trees for crop load instead," he says. They did so by installing six-foot-tall chicken wire cages around individual trees, placing tarps beneath the canopies just prior to nut drop and then collecting the nuts from those above-ground tarps every day until the last nuts fell.

The eight cultivars are third-generation descendents of Chinese chestnuts that U.S. Department of Agriculture scientists and Auburn horticulture personnel gathered in China's Hubei province in the early 1930s and planted on a horticulture research farm on the Auburn campus for breeding research.

The breeding project was motivated in large part by a fungus—specifically, a ferocious chestnut blight fungus that had accidentally been imported from Asia in 1900 and, by 1940, had destroyed the 4 billion American chestnut trees that had dominated U.S. forests for centuries. Chinese chestnuts, however, were immune to the disease, and thus became a subject of interest to the research world. Most of the research focused on breeding the Chinese species' blight-resistance gene into American chestnuts, but at Auburn, the goal was to develop new, improved varieties of the foreign tree.

From the initial planting at Auburn, researchers selected about 2,000 seedlings from the top-performing female trees and, using controlled mass pollination techniques, produced the second generation of Chinese chestnuts at the Alabama Agricultural Experiment Station's Piedmont Research Unit in Camp Hill. Researchers released three cultivars—AU Cropper, AU Leader and AU Homestead—from that generation in the early 1980s. In 1990, the best seedlings from those three varieties were chosen, and scientists established the third generation via the mass pollination method. The newly patented "wildlife" cultivars, then, all are offspring of either Cropper, Leader or Homestead.

Wayne Bassett of The Wildlife Group said the two four-cultivar packages will be available later this year, though supplies may be limited. The four, year-old individually grafted seedlings in the two packages will come in three-gallon containers and stand from 12 to 24 inches tall. The trees grow vigorously and should be producing nuts within two to three years, he said.

Though bred for wildlife purposes, the nuts that the new cultivars produce are excellent for human consumption, too. Dozier says, however, that he will start the patent-application process soon on another cultivar that produces exceptional chestnuts. Selling the nuts fresh from the farm or to local grocers and restaurants could provide a new source of income for growers.

PREPARING TO LAND—AU Buck II Chinese chestnuts are ready to drop from the spiny burs in which they developed. The Buck IIs are good-sized nuts that are too large for turkeys but perfect for deer. They are part of a four-tree package Auburn researchers have developed to provide wildlife a constant supply of chestnuts throughout the fall.

STUDY GIVES POULTRY PROCESSORS A CHOICE IN KILLING BACTERIA

By JILL CLAIR, Ag Communications senior, *and* JAMIE CREAMER

Come July, the USDA will begin enforcing new pathogen reduction standards at poultry processing plants, and research conducted by Auburn University poultry scientist Shelly McKee has shown that the use of peracetic acid as an antimicrobial in the chilling stage of poultry processing is highly effective in killing the bacteria targeted in the tighter standards.

The new federal performance standards are aimed at reducing the prevalence of Salmonella and Campylobacter bacteria—two pathogens that can cause food poisoning in humans—during poultry processing. The regulations strengthen existing Salmonella reduction standards but are the first ever for Campylobacter.

In her Alabama Ag Experiment Station–funded study, McKee tested several antimicrobials to determine how effective they were at reducing pathogens in the chilling phase of poultry processing. Chillers are at the end of the processing line and are used to quickly reduce the temperatures of processed birds.

Her results indicate that, when used to treat the water in the chillers, peracetic acid reduced the bacterial count on processed poultry by a higher percentage than chlorine, which many processing plants use. What's more, peracetic acid does not harm humans or the environment.

McKee published her research in 2008, and in a 2010 survey of 145 poultry companies, the majority said they were using environmentally friendly peracetic acid as the decontaminant in their chillers. This was a significant change from another survey conducted in 2006 that showed chlorine was the predominant chemical used for poultry applications. McKee presented these results earlier this year during a Salmonella and Campylobacter Reduction Conference held as part of the International Poultry Expo in Atlanta.

"This is an example of how research can effect a positive change out in the industry," McKee says.

In addition to the decline in chlorine use, a growing number of poultry companies have begun to install small, 400-gallon chillers, called finishing chillers, after their large, 50,000-gallon chillers and are adding antimicrobials to the water in the smaller chillers instead of the larger units.

"If you're trying to be friendly to the environment, you don't want to treat 50,000 gallons of water," McKee says. "You can treat the water in the smaller chiller as a finishing decontamination step without as much chemical."

McKee conducted her earlier research in the large chillers, but a private company has donated a finishing chiller to Auburn for research purposes and has asked McKee to determine whether environmentally friendly antimicrobials are as effective in reducing bacteria in 400 gallons of water as they are in the 50,000. That study will start in April.

The new USDA processing standards change the allowable level of Salmonella bacteria in broilers from 20 percent currently to 7.5 percent. McKee said companies have a lot of information on antimicrobials and their effectiveness against Salmonella, but more information is needed about ways to control Campylobacter since these are the first standards ever for the bacteria.

Editor's Note: In this and future issues of Ag Illustrated, we will highlight each of the College of Agriculture's eight academic departments. For our second installment, the Department of Fisheries and Allied Aquaculture is in the spotlight.

Spotlight

Fisheries and Allied Aquacultures

Making a Difference At Home and Afar

In the Beginning

Way back in the 1930s, when the Great Depression adversely affected virtually every family in Alabama and suspended much of Auburn University's agricultural research effort, an Auburn professor casting around for ways to improve the lives of Alabamians hit on an unlikely source of hope: Alabama's fish ponds.

That professor was Homer Swingle, an entomologist by training who also loved to fish and whose knowledge of fisheries was limited to what he had learned from the banks or a boat on Alabama's ponds and waterways. Though his fisheries training was not formal, Swingle was a visionary who recognized that improving the fishing in farm ponds could help put food on the tables of Alabamians and also provide them with a recreational outlet in those hard times.

With that in mind, Swingle and some of his Auburn colleagues began building ponds at Auburn and conducting experiments on how to best manage ponds and fish. By 1938 that research was published and soon became the basis for fish management systems nationwide.

Department Head – David Rouse

55 undergraduates

80 graduate students

23 faculty members

Undergraduate Degree Options:
Aquaculture
Aquatic Resource Management
Fisheries Management
Fisheries Pre-Professional

Auburn's national reputation in fisheries spread rapidly as the Soil Conservation Service and other federal agencies adopted Auburn recommendations on fish pond and recreational fish management. By 1946, Auburn was teaching its first formal courses in inland fisheries and aquaculture.The Department of Fisheries and Allied Aquacultures was established in the early 1970s.

Soon, thanks to a trip that Swingle took to the Philippines in the early 1950s, Auburn began developing an international reputation, and today the world-class department is considered the top fisheries and allied aquacultures program in the United States and possibly the world.

A Strong Foundation

According to David Rouse, head of the Department of Fisheries and Allied Aquacultures, the reason for his department's amazing accomplishments lies in its meshing of the land-grant system missions.

"I believe the key strengths of the department from the beginning have been our strong research and outreach programs," he says. "These two areas support each other by bringing an awareness of the key issues from the outside back to campus where our researchers can focus on real needs."

Among the technological breakthroughs that Auburn can claim credit for is the early work in management of recreational fish ponds, development of the first fish feeds for warm water fish, development of technology for pond aerators and development of methods to control unwanted reproduction of tilapia, which made it possible for tilapia to become one of the top cultured fish species in the world.

GETTING THEIR FEET WET—A group of Auburn University Fisheries and Allied Aquaculture students spent much of their Christmas break visiting aquaculture facilities in Vietnam.

"Recent work with hybrid catfish, fish vaccines and some new innovative culture systems seem destined to have major impacts on aquaculture as well," says Rouse. And then there is the extensive work being done on sport and wild fish issues and issues related to water and the aquatic environment, which helps protect and preserve our natural resources.

And that, says Rouse, translates into a remarkable teaching program as well. "Both research and outreach programs support our teaching program by bringing tremendous real-world experiences to the classroom."

Acting Locally and Globally

To that end, the department strives to help the citizens of Alabama and the world. In the beginning, Auburn's efforts focused on how to both produce more fish in Alabama and protect the fisheries resources in the state. As the program became more national and international, it has expanded Auburn's horizons and also benefited Alabama.

"International work really became a part of who we are by the mid-1960s," says Rouse. "Since 1967 faculty and staff have been on 40 long-term assignments (ranging in length from three to seven years) in 15 countries. We also have more than 200 person-years of short-term projects in 105 countries."

HANDS-ON EXPERIENCE—The Fisheries and Allied Aquaculture program gives students a chance for hands on experience in raising fish and maintaining ponds. The fish ponds at North Auburn campus are good examples of this dedication to preparing students to work in the aquaculture field.

In the last few years, FAA faculty and staff have provided technical assistance in about 20 countries each year through 50 to 70 trips totaling some 1,000 person-days per year.

While Auburn has helped people in many countries better feed and support themselves, that work has also greatly benefitted people here in Alabama.

"The travel experience of our faculty and staff provides a very broad background that we can bring back into our classrooms and it helps us develop ideas for our stakeholders in Alabama," he says. "I think it also shapes the way our researchers begin to look at problem-solving here at home. They are often asked to assess regional and even country-wide problems overseas so they are forced to think broadly. That broad thinking has helped us as we look at our own problems in Alabama."

Rouse noted that the international experience Auburn professors bring to the classroom helps students see the world differently as well. And many Auburn students in fisheries have opportunities for world travel as they pursue their degrees, such as recent student trips to Vietnam, China, Spain and the Canary Islands.

Not only do Auburn faculty, staff and students travel the world, the world also comes to Auburn to study. Currently, graduate students in Auburn's fisheries and allied aquacultures department hail from across the United States as well as from Africa, Asia, Central and South America and the Middle East. Those international students are a huge asset to Auburn's program.

"It's good to get our students overseas, but it also has been educationally enriching for our students to have so much of the overseas fisheries world come to Auburn," he says. "Our world is increasingly interconnected and it will only continue that way, so our international activities become even more important in the future."

A Challenging but Bright Future

Auburn's top-notch international reputation keeps growing, and Rouse believes the need for what his department does will also continue to grow.

"With our increasing populations in the U.S. and the world, we're putting more and more pressure on our aquatic systems and our need for food," he says. "We are a department that really focuses on water and its wise uses, whether it is for recreation or food production, and these will be areas of great need in the future.

"I believe our department is positioned with excellent people and facilities to make even greater impacts in the future," he adds.

To learn more about the Department of Fisheries and Allied Aquacultures visit www.ag.auburn.edu/fish or contact the department at 203 Swingle Hall, Auburn, AL 36849 or 334-844-4786.

School of Forestry and Wildlife Sciences

Toomer's Oaks Seedlings Assure Auburn Tradition Will Continue *By* CHARLES MARTIN

While the future of Auburn's 130-year-old Toomer's oaks is uncertain, Auburn has had a plan since 2001 to grow potential replacements and to supply alumni and fans with their own Toomer's oaks seedlings.

"Due to the age of the trees, we knew a day would come that new trees might be needed," says Scott Enebak, professor of forestry and wildlife sciences. "We were anticipating sometime around 2020 at the earliest, but unfortunately the recent poisoning may create a new timetable. We are doing all we can to save the trees, but if the worst happens, we have a plan in place."

SEEDLINGS SURVIVE—Scott Enebak, professor of forestry and wildlife sciences, checks on the health of seedlings grown from the famed Toomer's oaks. Acorns from the trees are hand-picked once a year, then planted and cared for by SFWS students until they are ready to be sold to alumni and fans throughout the world. To see where Toomer's oak offspring can be found, visit www.sfws.auburn.edu/oaks/OakLocations.php.

In 2002, students collected acorns from the Toomer's oaks, raised seedlings and planted them in a small orchard on Auburn forest property. Today, 46 offspring of the famed trees are 15 feet tall and almost 3 inches in diameter.

"There were two goals for these trees," Enebak says. "Some of the trees could be used to replace the existing Toomer's oaks when they reach the end of their normal life cycle, and the orchard could be used to produce acorns to provide a continuous supply of new Toomer's oaks."

The visionary plan also created the Toomer's Oaks Seedlings program that benefits the Toomer's Endowed Scholarship Program for forestry students. Each fall, students in the Forestry Club, Wildlife Society and Xi Sigma Pi forestry honor society use a lift cart to collect acorns at Toomer's Corner, grow the seedlings in a greenhouse and sell them to alumni and fans around the country. More than 2,000 of these baby Toomer's oaks have been sold over the years.

College of Sciences and Mathematics

Beautiful Bog In The Arboretum

Rare species of pitcher plants, such as the native Alabama canebrake pitcher plant, *Sarracenia rubra* subsp *alabamensis*, will be featured in the Donald E. Davis Arboretum's newly installed bog that will house eight species of these native carnivorous plants. This carnivorous plant, which is currently found in only three counties in Alabama, is federally listed as endangered. The bog will also feature *Sarracenia oreophila*, another rare species of pitcher plant, as well as an outdoor classroom building where Auburn students and the community can learn more about the endangered plants. Surrounding the new bog will be a mix of native grasses and wild flowers commonly found in natural pitcher plant habitats. The arboretum's collection of canebrake pitcher plants will contribute to the conservation of the species. It was donated by Ron Determann of the Atlanta Botanical Gardens, who grew the plants from seeds. The Atlanta Botanical Gardens is a member of the Georgia Plant Conservation Alliance, a leader in plant conservation efforts in the state of Georgia and beyond.

PITCHER PLANT PRESERVE—The native Alabama canebrake pitcher plant along with other rare species of pitcher plants and native grasses and wild flowers will be featured in the Davis Arboretum's newly installed bog.

College of Veterinary Medicine

Senior Dairy Rotation Evokes Auburn Spirit

Alabama may not be a major player in the U.S. dairy industry, but the College of Veterinary Medicine is still charged with training veterinarians in the skills necessary to service that and other segments of the food animal industry.

As part of the fourth-year curriculum, senior veterinary students are immersed in the world of dairying, learning skills such as milking, feeding, calf raising, breeding management, vaccinating, pasture management and a host of other activities that a working dairy requires, including naming the female calves.

Auburn's championship football season inspired students in their selection of names this year with calves named "Miss Cam" for Heisman Trophy winner Cam Newton, "Lutzy" for tight end Philip Lutzenkirchen, "Gussie" for offensive coordinator and quarterback coach Gus Malzahn and "Miss Gena" for Head Football Coach Gene Chizik.

Chizik was a special guest at the seniors' final clinical conference in February and was presented the roster of names given to this year's female calves.

"It is an honor to have a cow named after you," says Angelica Reyes, Class of 2011 member, who presented the roster to Chizik.

His response? "There is no place like Auburn. The passion, the tradition and the pride. The reason is because of you—the students, the fans and the family," says Chizik. And, he told the students, he feels this way about Auburn even "without you naming a cow after me!"

MEETING HIS MATCH—AU Head Football Coach Gene Chizik meets his namesake, "Miss Gena," when he was special guest at the CVM's clinicopathological conference presentation in late February.

College of Human Sciences

Henton Awarded Honorary Degree

June Henton, dean of Auburn University's College of Human Sciences, was recognized as an anti-hunger activist and presented with an honorary doctor of laws degree at the Feb. 24 convocation at the University of Guelph in Ontario, Canada. Henton was one of five individuals honored by the university during winter convocation, including Canada's former governor general Michaëlle Jean.

Henton was in Guelph as part of the Auburn delegation's attendance of the 2011 Hunger Summit, the sixth annual conference for members of the Universities Fighting World Hunger alliance.

Under Henton's leadership, Auburn partnered with the World Food Programme in 2004 to establish a War on Hunger campaign for the Auburn campus. Two years later, Henton led Auburn's cooperative efforts with the World Food Programme to develop a global initiative, Universities Fighting World Hunger. More than 160 colleges and universities worldwide have since joined in the fight against hunger and malnutrition at home and abroad.

In her 25-year tenure as dean at Auburn, Henton has been an instrumental force in the creation of a number of initiatives and programs for the College of Human Sciences, including the Elmer and Glenda Harris Early Learning Center in Birmingham, the Women's Philanthropy Board, International Quality of Life Awards, Joseph S. Bruno Auburn Abroad in Italy, and the partnership between the Hotel and Restaurant Management program with the West Paces Hotel Group.

ANTI-HUNGER ACTIVIST—Representatives from the University of Guelph in Ontario, Canada, who presented June Henton, dean of Auburn University's College of Human Sciences, with an honorary doctor of laws degree for her anti-hunger activism included, from left, President and Vice-Chancellor Alastair Summerlee, Henton, Chancellor Pamela Wallin and Gavin Armstrong, the student who nominated Henton.

Classic Fun

14th Annual Ag Classic Set for April 27-28

Good food, great fun and a little friendly competition are on the agenda for the 14th annual Ag Classic tournament to be held April 27-28 in Auburn.

Ag Classic, a springtime tradition for the College of Ag, helps strengthen support for Auburn agriculture, foster relationships among Auburn friends and supporters and raise money for College of Ag scholarships and programs.

This year's events includes two golf tournaments—one on April 27 beginning at noon and another on April 28 beginning with a putting competition at 8 a.m.—and a fishing tournament on April 28 starting at 7:30 a.m. at Auburn fisheries pond S6. In addition, a social hour, dinner and auction will be held April 27 at the Alabama Farmers Pavilion at Ag Heritage Park.

The deadline to register is April 22 and forms are available at www.ag.auburn.edu/agclassic or by contacting Katie Hardy at 334-844-1475 or hardykc@auburn.edu.

TAKES AIM — A golfer in the 2010 Ag Classic takes aim at his target.

THE RIGHT HOOK — In addition to great golf, Ag Classic hosts a fishing tournament as well. So if you don't want to bring your golf clubs, bring your fishing rods instead.

AG LEADERS HONORED—Three individuals who have had a significant impact on agriculture and agribusiness in Alabama were inducted Feb. 22 into the Auburn University Agricultural Alumni Association's Hall of Honor. Pictured at the award ceremony are (standing from left): Bill Batchelor, dean of the College of Agriculture; inductees Jerry Newby of Athens and Dallas Hartzog of Webb; and Richard Holladay, president of the Ag Alumni Association. Seated is inductee Harold Pate of Lowndesboro. Also honored at the event were Pioneer Award winners Buck Appleton and John Cottier, both of whom were honored posthumously for their lifetime contributions to Alabama agriculture and agribusiness.

Ground Broken on New Feed Mill Facility at Auburn University

Ground was broken March 30 on a new $6.3 million facility at Auburn University that will help animal industries in Alabama and beyond provide the best feed possible.

High-quality, nutritious feed is key to the success of any poultry, livestock or fish farming operation. Despite the essential roles that nutrition and feed play in supporting animal industries, few U.S. universities have focused their attention on this subject. Auburn University, which has strong academic programs in the animal sciences, including a comprehensive Department of Poultry Science, recognized that need several years ago and began formulating plans for a cutting-edge animal nutrition facility.

Those plans have come to fruition as construction now begins for the Auburn University Poultry and Animal Nutrition Center located north of Auburn off Auburn Lakes Road.

"This new facility significantly advances Auburn's teaching, research and extension efforts in the critical areas of feed science, technology and manufacturing," says Don Conner, head of Auburn's poultry science department.

To ensure the needed capabilities were incorporated into this facility, a technical advisory committee of industry personnel provided critical input on technical specifications. This group, comprised of poultry nutritionists and feed milling personnel, evaluated every design aspect to ensure that both the design and equipment are optimal for meeting the industry's needs now and well into the future.

A unique modular facility design is being used to allow for flexibility needed in a research and educational feed mill. At the heart of this facility is equipment representing industry standards, which is imperative in terms of ensuring that this facility will effectively serve the needs of the industry. Major feed mill equipment suppliers are helping equip this facility. The feed mill will be the first poultry science facility at Auburn's north campus, with a target completion date of December 2011.

"Today is a milestone in achieving a much-needed research and teaching poultry and animal nutrition center. This facility will be a flagship academic-industry feed mill facility for the Southeast," says Conner. "It will provide a unique opportunity to advance all of our academic programs to enable Auburn to better serve our clientele."

The Auburn University Board of Trustees recognized the long-standing partnership between Auburn University's poultry science department and the state's poultry industry, as well as the leadership the Alabama Poultry and Egg Association provides in supporting this feed mill project. On June 18, 2010, the board passed a resolution naming the main building of this center as the Alabama Poultry and Egg Association Feed Mill and Animal Nutrition Building.

The new facility will offer the technology and equipment to meet research needs, expand Auburn's outreach efforts via industry short courses for the feed and poultry industries, provide Auburn students with hands-on training in feed manufacturing and science, enhance outreach and proprietary research programs via contracting/leasing arrangements between Auburn and private companies and provide feed for Auburn University's research and teaching animals.

The center is funded through Auburn University monies, private donations and in-kind equipment donations. Fund raising efforts are continuing. For more information on the feed mill, contact Conner at connede@auburn.edu or 334-844-2639 or visit www.ag.auburn.edu/poul to learn more about Auburn's Poultry Science Department.

Don't Guess: Get a Test!

The Auburn University Soil Testing Lab, located in the Alfa Agricultural Services Building on The Auburn campus and established in 1953, offers soil testing services for home gardeners and farmers. A soil test determines the pH level and the plant available essential nutrients in the soil, which helps ensure the health and productivity of crops, ornamental and annual plants and lawns.

Turn around for routine soil test is 24 hours.

Results can be sent by email or postal mail.

Cost: $7 per sample for routine analysis

To learn more call 334-844-3959 or visit www.aces.edu/anr/soilab

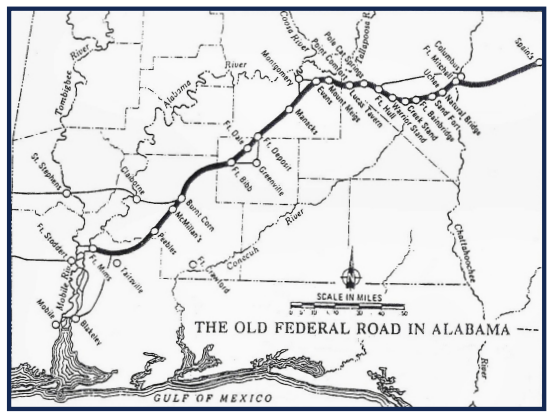
The Soil Testing Lab allows growers to maximize their crop yield while helping homeowners choose the right plants for their home or garden.

Extension Initiative Focuses on Alabama's Old Federal Road

A 19th-century thoroughfare that played a significant role in Alabama's history will mark the route for a series of rural development projects to be undertaken in a new Alabama Cooperative Extension System economic-enhancement initiative.

The Old Federal Road Initiative aims to enhance economic development in the south Alabama counties located along the once–heavily traveled road. Supported by a $250,000 allocation from the Alabama Legislature, the initiative has awarded 11 mini-grants to individuals and teams from Auburn's main and Montgomery campuses and from Extension for a variety of promising development projects.

The initiative and the mini-grants are being administered by Auburn University's Economic and Community Development Institute, a partnership between the university and Extension. Joe Sumners, ECDI chief, crafted the new initiative, modeling it after the successful Rural Alabama Initiative grant program that the institute launched in 2007 and that to date has funded nearly 100 economic and community enhancement projects across the state.



THE ROAD LESS TRAVELED—A new Extension initiative focuses on economic revival along the route of the Old Federal Road, a historic thoroughfare in south Alabama.

Director of the overall Old Federal Road Initiative is Richard Guthrie, dean emeritus of the College of Agriculture at Auburn.

The funded projects include documenting the route of the Old Federal Road and historic sites along the road; identifying tourism, recreation and economic development opportunities for sites along the road; creating strategies to take advantage of economic opportunities on sites along the road; and educating tourists, local citizens, legislators and economic developers about the Old Federal Road.

All of the projects will enhance collaboration among university faculty and local partners in rural development activities in counties along the Old Federal Road.

"We appreciate the Legislature entrusting Extension with this worthwhile project," says Gaines Smith, Extension director. "I am pleased at the response shown for the Old Federal Road Initiative and believe that the 11 projects selected have tremendous potential for the state, both economically and historically."

Construction of what now is known as the Old Federal Road began in 1811 with the goal of connecting Fort Stoddert, located at the Mobile River's Mount Vernon Landing, to Fort Wilkinson near Milledgeville, Ga. Once the road reached the Chattahoochee River, it was merged with an earlier postal riders' horse path that linked New Orleans, La., to Athens, Ga.

In addition to serving as a major military road to connect early American forts in the Creek Lands and the Mississippi Territory, the road also became a key travel route for thousands of pioneers moving to the area once known as the Old Southwest. In that role, the road played a role in a population boom in Alabama between 1810 and 1820, with Alabama's population growing faster than either Mississippi's or Louisiana's.

The road also was used to oust the region's Creek Indians from their native lands following the War of 1812 until their forced emigration in 1837-38.

A list of the 11 projects funded by the Old Federal Road Initiative can be found online. Go to www.aces.edu and search for "old federal road mini-grants."

HONORING 4-H SUPPORTERS—Twenty outstanding Alabama individuals, businesses and organizations that have supported and had a significant impact on the state's 4-H and Youth Development program were inducted into the Alabama 4-H Wall of Fame during a recent ceremony at the Alabama 4-H Center in Shelby County. The inductees included the Alabama Farmers Cooperative Inc., Bonnie Plants and Auburn Bank; longtime 4-H volunteers Harriett Hall of Jefferson County, William and Vivian Garrett of Shelby County, Barbour County's Barbara Crapps and Barbara Shipman and DeBorah Darring and Jerry Gibson, both of Mobile County; Extension retirees Hazel Harpe of Conecuh County, Harry Houston of Morgan County, Les Pair of Calhoun County and, posthumously, Kaye Conley of Morgan County; and the DeKalb County VFW Fairgrounds, Mark Espy Sr. of Headland, Auburn's Richard Guthrie and State Rep. Mike Hubbard, Clarice Hardy of Randolph County, Carolyn Taylor of Redstone Arsenal Child Youth and School Services and Ruth Sherman Underwood of Baldwin County.

Local Farmers Markets Offer Bounty of Benefits

Local farmers markets offer the ultimate venues for small-scale Alabama growers to peddle their fruits and vegetables and for consumers to stock up on the absolute freshest produce. But two Alabama Cooperative Extension System employees say farmers markets' benefits don't stop there.

Jimmy Jones, Henry County Alabama Cooperative Extension System coordinator and chairman of the Headland farmers market committee, says that in addition to assisting local vegetable growers, farmers markets are a plus for local business.

"It really is a win/win scenario all around," says Jones, who stresses that, contrary to popular opinion, markets don't undermine businesses or local retail grocery outlets.

"It actually augments them," he says, adding that the local groceries have actually cited enhanced business from consumers who purchase grocery items to go along with the fruits and vegetables purchased at the farmers market. "It's keeping money in local circulation, and it's helping small-town America."

Kerry Smith, the Alabama Cooperative Extension System's home grounds co-leader, sees yet another positive resulting from the emerging statewide presence of farmers markets.

"It's increasing the value of food, but not necessarily in terms of its dollar value," she says. "It's driving home the reality of food—where it comes from and that there are people out there equipped to grow it for consumers."

Smith believes farmers markets and the home-gardening phenomenon in general also have the potential to encourage healthier eating habits.

SWEET AS A PEACH—Freshly picked Alabama peaches are available just about all summer long at farmers markets across the state.

"Often in retail environments, people tend to walk past fresh produce," she says. "But with farmers markets, you get a person behind the produce who can talk about it.

"Consumers often come away with a deeper appreciation of how the produce affects them, but equally important, they're also provided with a better grasp of the whole value behind fresh-grown fruits and vegetables," she says.

Extension professionals are a valuable resource for communities interested in establishing a farmers market. Jones, for instance, worked with other Headland community leaders to secure a Rural Community and Development Grant from the U.S. Department of Agriculture to cover some of the costs of building and marketing the farmers market.

Jones says he and other Extension educators throughout the state have worked with producers and local civic leaders to experiment with different approaches to markets.

His committee established a rule from the outset that only produce and products grown within the Wiregrass region could be sold at the Headland market. Headland is one of about eight to 10 markets functioning throughout the Wiregrass region.

Also, as a standard practice to avoid undercutting, the markets coordinate times among each other. Headland's market is currently open Fridays from 3 to 7 p.m. Others open Saturday and at other times during the week.

"Most people in Headland are hourly workers, who typically get paid on Friday, and the reason we decided to open our market on that day," he says, adding that stay-at-home and working mothers concerned about wholesome food for their family have also emerged as avid customers.

"A lot of thought already has gone into this, and it's as much about serving consumers with quality produce as it is about providing a place for small vegetable growers to sell their products," Jones says.

ESSENCE OF SUMMER—Nothing says summer in the South like a ripe, juicy tomato, and you're guaranteed to find plenty of them at a farmers market near you.

Calendar of Events

April • 2011

s	m	t	w	t	f	s
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
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May • 2011

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29	30	31				

June • 2011

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26	27	28	29	30		

April 16-17
A-Day Weekend Plant Sale
Samford Avenue/South College Street
Auburn
9 a.m. till dark April 16; 8 a.m. to 5 p.m. April 17

This annual A-Day weekend plant sale is sponsored by the Auburn chapter of PLANET, a student organization for landscape horticulture majors, and the Campus Club. It features bedding plants, shrubs, groundcovers, roses, climbing vines, trees, herb and vegetable plants as well as Auburn-developed 'MaterDirt for tomatoes and 'TuniaPeat, a custom potting medium for bedding plants.

Contact: Mary Lou Matthews at 821-2161 or mandml@att.net

April 19
Alabama Dairy Field Day
E.V. Smith Research Center
Shorter

This day-long event will feature a wide range of information on dairying. A $10 registration fee will be charged for those wishing to eat lunch.

Contact: Boyd Brady at 334-844-1562 (office) 334-321-8826 (cell) or bradybo@auburn.edu

April 19
3rd Annual Egg-Stravaganza!
Ag Heritage Park--Ag Pavilion
Auburn
5-8 P.M.

This free event, sponsored by the Poultry Science Club, offers a barbeque dinner, children's egg hunt and the now famous Egg-Stravagant Olympics for College of Agriculture faculty and staff and their families!

Contact: Amanda Martin at amartin@auburn.edu or 334-844-2881 or visit www.ag.auburn.edu/poultry.

April 27-28
14th Annual Ag Classic
Auburn

Ag Classic has become one of the greatest traditions within the College of Agriculture providing alumni and friends a reason to visit Auburn, share in a little friendly competition and mostly enjoy lots of fun and fellowship. In addition to fishing, and golf tournament events, Ag Classic includes a social hour, dinner and auction.

Contact: Katie Hardy at 334-844-1475 or hardykc@auburn.edu or go to www.ag.auburn.edu/agclassic

May 9
Spring Graduation Luncheon
Ham Wilson Livestock Arena
Auburn
1 p.m.

College of Agriculture graduates and their families are honored at this luncheon hosted by the AU Agricultural Alumni Association and sponsored by the Alabama Poultry and Egg Association.

Contact: Ann Gulatte at 334-844-2345 or gulatam@auburn.edu

May 19
Summer Classes Begin

May 26-Aug. 25
The Market at Ag Heritage Park
Auburn
Thursdays
3-6 p.m.

The Market at Ag Heritage Park is a growers-only farmers market featuring fresh local produce, goat cheese, honey, stone-ground grains, plants, baked goods, educational exhibits, cooking and gardening demonstrations and much more. It is open to the entire community and is held each Thursday through Aug 25.

May 30
Memorial Day Holiday

June 9, 16 and 23
Summer P.E.E.P.S. Camps
Auburn

The Poultry and Egg Experiences for Prospective Students (P.E.E.P.S.) Camp is an exceptional summer camp/workshop experience for rising first- through seventh-graders. The camp helps students learn about the connections between and importance of agriculture, food, science, and poultry. Cost of each camp is $25 per participant and the even includes tours of the Southeastern Raptor Center, Jordan-Hare Stadium and College of Veterinary Medicine; lunch and snacks, a tee-shirt and a certificate of achievement. June 9 is for rising 1st and 2nd graders, June 16th for rising 3rd and 4th graders and June 23rd is for rising 5th-7th graders.

Contact: Amanda Martin at amartin@auburn.edu, 334-844-2881 or visit www.ag.auburn.edu/poul/prospective-students/Teachers/SummerCamp.php

For more information on these and many other upcoming College of Ag and AAES, events go to www.ag.auburn.edu and click on the "Calendar" link.

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AG illustrated

Recipe File

International Flavors

Antonio Garza de Yta is quite the Renaissance man. Not only is he the administrator for the Department of Fisheries and Allied Aquaculture's Certification for Aquaculture Professionals program, he also speaks numerous languages, has literally traveled the world and is an exceptional cook. Perhaps "chef" is a better word to describe his culinary talents since, though some of his cooking skills are self taught, Garza de Yta studied "high Italian cuisine" in the Dante Alighieri Academy in Mexico City with Chef Livia Barzziza di Mianni. The recipe below is a sampling from his impressive collection that is amazingly easy to make and exquisitely delicious to eat.

Antonio Garza de Yta

PENNE ALL'ARRABBIATA

1/2 pound bacon
4 tablespoons olive oil
3 tablespoons minced garlic
12 dried pepperoncini *
34 ounces (1 liter) tomato puree
2 pounds uncooked penne pasta
1/3 pound shredded parmesan cheese

Chop the uncooked bacon in small pieces. Warm the oil in a pot with the garlic and the pepperoncini. Add the chopped bacon and fry till crisp and browned. In a large pan over medium heat, combine bacon mixture, tomato puree and salt and simmer, uncovered, for 30-40 minutes. Cook pasta al dente. Drain the pasta; add pasta and parmesan cheese to sauce and stir till heated through. Serve hot. Makes 10 servings.

**Pepperoncini are small Italian dried peppers; 12 provide a mildly spicy flavor but more can be added for a spicier dish.*

To see other recipes from Ag Illustrated and our college of ag family, go to www.ag.auburn.edu/recipes.