AG illustrated

October 2011
Volume 8, Issue 5

The Wonderful World of Disney

Gonsalves Loves Her Auburn Tigers and Her Animal Kingdom Cats, Too *by* JAMIE CREAMER

TIGER BEAT—Left, a tiger on the Maharajah Jungle Trek in Disney's Animal Kingdom keeps watch as Meaghan Gonsalves, a College of Ag alumna who works as an animal keeper associate in the theme park, poses for a photo taken by Glen Duncan for Walt Disney World. Above, Gonsalves explains to guests how Animal Kingdom's four meerkats are conditioned to follow a target.

As recently as two years ago, the only thing Meaghan Gonsalves knew about meerkats was that the wisecracking, animated "Lion King" character named Timon was one. And if somebody said tigers, she said Auburn.

But these days, real meerkats and tigers—not to mention gerenuks, komodo dragons, banteng cattle, Malayan flying foxes and a host of other foreign beasts of the earth—are all in a day's work for the 2010 Auburn University Department of Animal Sciences alumna, who is living her dream as a cast member at Disney's Animal Kingdom.

(Note: All 62,000 people who work at Walt Disney World are cast members.)

In Disney's cast member classifications, Gonsalves is an animal keeper associate II with the Animal Kingdom Trails Team. As such, she cares for the myriad species of exotics that continually fascinate the millions of guests who embark on the Pangani Forest Exploration Trail in the Kingdom's Africa area and the Maharajah Jungle Trek in Asia.

And in that, Gonsalves has found her niche.

"There have always been two distinct parts to my personality—the animal and environment enthusiast and the people person," the Auburn equine science grad says. "I love making people smile just as much as I love working toward the conservation of our animals and environment. Disney's Animal Kingdom is the perfect fit for me because every day, I have the wonderful opportunity to work with and care for animals and at the same time to be a part of creating the magic for all of the guests, and for the animals, too."

What's amazing, she says, is that even though she's now on the inside of Disney looking out, and even though she's there working 10-hour shifts four days a week, the place is as enchanting now as it was when the Davie, Fla., native was a child and first set foot inside the Magic Kingdom.

"Working here just amplifies how magical Disney is," she says.

Such is the case with Animal Kingdom, which Gonsalves first experienced as a guest in the early 2000s. She was awestruck then by the lush, natural landscapes and the menagerie of unrecognizable creatures, great and small, that dwelt in them, and as a cast member in the Kingdom today, she still finds it all fascinating.

"Every one of the exhibits is inspired by the geographic locations the animals are from, to help them feel like they're in their natural habitat and to help the guests feel like they're immersed in it with them," she says. "It's incredible. Now I sometimes forget I'm not really in Asia when I'm working with the tigers.

"Animal Kingdom and the interesting, diverse animals in it," she says, "are some of Disney's most amazing 'imagineering.' "

Though Gonsalves' home in suburban Fort Lauderdale is a quick three-hour drive southeast of Lake Buena Vista and the wonderful world of Disney, her route to a role as cast member at the world's largest and most-visited recreational resort first brought her nine hours farther north to Auburn, where, in the fall of 2007, she enrolled as a freshman majoring in equine science.

Horses, you see, are Gonsalves' passion and have been since she was 6 and experienced horseback riding for the first time. Such was her fervor for horses that as an adolescent and teen, she worked after school, every weekend and every summer at a local horse boarding/breeding facility, where she taught riding lessons, handled daily husbandry duties and trained horses. She was wild about horses and a college degree in the equestrian field was her goal.

The equine programs at most of the colleges she looked at were business oriented, but Gonsalves wasn't interested in that. She wanted to study the science of horses—their physiology, reproduction, behavior and nutrition—and Auburn's equine science program, unlike the others, would allow her to do that. It took but one visit to the Loveliest Village in her senior year of high school for Gonsalves to know she'd found her school.

"I knew the minute I was there that there was no other place for me," she says. The campus, the atmosphere, the friendliness and the community all were a part of that, but faculty, staff and students she met in the College of Ag on that initial visit were what sealed the deal. And when she returned to Auburn that fall as a student, the college didn't let her down.

"When I got to Auburn, I honestly can't remember a transition period where I was homesick or lonely," she says. "All I remember is immediately becoming a part of the greatest family Auburn has to offer: the College of Agriculture. With the love and support of that family, nothing that came my way seemed undoable."

The energetic and outgoing Gonsalves loved her classes, loved her teachers and was a stellar student destined to excel professionally riding and training horses. But as her final semester at Auburn approached, that strong vision she'd had of having a career that revolved around horses began to lose its allure.

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AUBURN AGRICULTURE
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View from AGhill

As fall unfolds and harvest is well under way, farmers around the country are evaluating the impact of the season's weather, their production practices and their management decisions on yield and profitability. While some of the food we produce in Alabama will be sold locally, most will enter the global food system, where it will travel on average more than 1,000 miles before landing on a consumer's table in the U.S., and even farther for international consumers.

The food system employs nearly 24 million people, or 17 percent of America's work force. The value of the food system is more than $2 trillion annually, and in the U.S., the food system constitutes more than 12 percent of the gross domestic product. As the world strives to become more economically efficient, we have observed much consolidation and integration within the food system.

As we evaluate the role of the College of Agriculture in the 21st century, it is encouraging to note that the size of the food system continues to increase as the world population grows. The food system, driven by efficiency and profits, is changing rapidly to become more global and more integrated. The world has a tremendous need for new breakthrough technologies to increase overall food productivity, as well as discoveries that make our farmers incrementally more efficient and reduce their impact on the environment. The world also has a great need for innovative workers to fill the jobs of baby boomers, who are retiring at a rapid rate. All these factors point to a bright future for colleges of agriculture during the next century. However, to be successful, we must adapt to the ever-changing economics and generational attitudes towards food systems jobs that are facing us.

This fall, the College of Agriculture will complete a new strategic plan. Part of that plan will call upon us to invest in efforts that make a difference in developing technology and producing the next generation of food systems leaders. As an example of this, in September, we celebrated the opening of the Center for Aquatic Resource Management at the E.W. Shell Fisheries Center on Highway 147 in Auburn. This two-building complex was constructed to continue the world-renowned work of the fisheries and allied aquacultures department to increase fish-based food production and improve recreational fishing management. During the past decades, this program developed sex reversal technology for tilapia, which increased production by 50 percent. It also developed raceway production technology that promises to triple the production of catfish per pond acre. Another example is the construction of our new feed mill, which is under way north of the Auburn campus. While the feed mill will provide researchers with state-of-the-art equipment for developing new animal and fish diets, it will also provide us with the capability to prepare a new generation of students to work in the feed industry.

These are breakthrough technologies and cutting-edge facilities that the world has come to expect from colleges of agriculture in the land-grant system. We hope they are just a sample of what the future will hold for Auburn's College of Agriculture.

This will be an exciting year in the College of Agriculture as we spend time planning for that future. I hope we can count on you to be a part of our efforts!

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

(THE WONDERFUL WORLD OF DISNEY, *from page 1*)

"I came to realize that lifelong dedication to competing, training and traveling (to shows and competitions) already was starting to take a toll," she says. "I no longer saw my horses as my pets; they had become a job, and I didn't much like the idea of having to ride horses to make a paycheck. I wanted to make horses fun again."

But what to do? Here she was, a college senior, and suddenly, she had lost her direction. Vet school was one option, but she couldn't get excited about that, and though graduate school sounded appealing, "that was mainly because it meant I could stay at Auburn," she says. And besides, she didn't know what she would get a master's degree in anyway.

"Before dedicating the time and money to that, I decided to take some time off to explore other options," she says.

That's how, in June 2010, she wound up at Disney World with a six-month animal-nutrition internship in the resort's more than 400-acre Animal Kingdom. In that role, she worked three, 10-hour days a week in the Kingdom's kitchen, helping prepare meals for the carnivores, small mammals, birds and primates that are among the park's 1,700-plus animals representing 250 species. The fourth day, she worked in the lab, where she had the opportunity to develop her own nutrition-based research project. For that, Gonsalves chose to study gerenuks—small, giraffe-necked East-African antelope that, until Disney, she'd never known existed but about whom "so little is known that they truly intrigued me."

By the time her internship ended, Gonsalves had landed the job as animal keeper on the Trails Team, a position that has her interacting directly with the Kingdom's trails-dwelling beasts. Hers is mostly a behind-the-scenes job that encompasses checking out the animals each morning, shifting them from their night quarters into the exhibit areas each morning and back to their housing each night, freshening the exhibit areas and stalls, serving the animals dinner and securing them at night.

But Gonsalves' favorite part of the day is working with individual animals to condition them to participate in their own health care so that any health concerns can be detected early. Using a series of visual and audio cues, she's able to coax a tiger to open its mouth or show her a paw or shoulder for review.

"You condition exotics just like you train domestics—positive reinforcement, consistency and timing and capturing the behavior when it's offered," she says. "With some animals, we're able to get fairly close to them, but with the tigers, I'm always on the other side of a protective barrier when I give them food as a reward."

Gonsalves calls her internship at Disney "the best decision I ever made," for three reasons. One, because she wound up with a great job; two, because it's convinced her she wants to pursue a master's in zoology; and, three, because "it's allowed horses to become a hobby for me once again!"

That she's thrilled to be a part of the magic of Disney is obvious, but even so, her love for Auburn shines through.

"Auburn is my home," she says. "It made me who I am. And no place I ever live will be able to replace what Auburn, the people there and the College of Agriculture mean to me."

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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 10 percent recycled and 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/adm/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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Student Spotlight

Never To Yield

Pre-Vet Major, Auburn Linebacker Finds Faith Conquers All

by JAMIE CREAMER

FROM PASTURE TO FIELD—Above, animal sciences/pre-vet senior Ashton Richardson checks on a 2-day-old calf at the Stanley P. Wilson Beef Teaching Center. Left, Richardson, No. 56, lines up on special teams during a 2010 Auburn game at Jordan-Hare Stadium in a photo taken by Athletics Department photographer Todd Van Emst.

Ashton Richardson knows what it's like to get the rug yanked out from under you, to have life go from cool, calm and copacetic one minute to chaotic, catastrophic and convoluted the next.

He's been through that at least three times in the past six years, and any one of those experiences could have soured his attitude toward life. But the animal sciences/pre-vet senior at Auburn just isn't that kind of guy. Quiet and unassuming though he may be, Richardson is made of strong stuff, bound together by a whole lot of faith.

The New Orleans native who grew up an LSU fan enrolled in Auburn fall semester 2008, with the help of academic scholarships from the College of Agriculture, and has maintained a 3.8 GPA despite the rigorous schedule that being a walk-on with the Auburn Tigers demands. And incidentally, the "walk-on" description ended just before the Tigers' 2011 season kicked off, when he was one of eight walk-ons to be awarded a full football scholarship.

But let's go back to New Orleans, where he lived the first time his world turned topsy-turvy in a big way. In the wee hours of the morning of Aug. 27, 2005, Hurricane Katrina roared through the Big Easy, and nine feet of floodwaters destroyed his family's home and possessions. They had fled the storm 80 miles inland to his grandmother's house in Baton Rouge, and with New Orleans in shambles, in Baton Rouge they stayed.

The young Richardson adjusted fairly well to the sudden uprooting, thanks largely to football. Then a high-school junior, Richardson lived and breathed football, and though initially upset about leaving his position as a St. Augustine High School Purple Knights linebacker in New Orleans, he was fine once he'd earned a spot as cornerback, safety and linebacker for Baton Rouge's St. Michael the Archangel High School Warriors, where he made First Team All-District his senior year.

Born a Bayou Bengals fan, Richardson grew up dreaming of playing for LSU. His dad, Al, had been a standout linebacker for the Fighting Tigers in the late 1970s and early '80s, and son grew up determined to follow in father's footsteps.

But in January 2008, inside the locker room at LSU's Tiger Stadium, that dream was shattered when he learned he hadn't made the team, for reasons he and his family have yet to fully understand. For Richardson, that blow was far more devastating than the one delivered by Katrina.

"It tore me completely up," Richardson says. "Football was pretty much my life, and here the team I'd always wanted to play for didn't want me."

It was, to put it mildly, demoralizing, so Richardson did all he knew to do.

"I prayed," he says, "and I asked God what was His plan? What was I supposed to do now?"

Apparently, what he *wasn't* supposed to do was hang up his cleats and brood. He loved football and wanted to play somewhere, and besides, really and truly, LSU wasn't the be-all, end-all in the world of SEC college football, nor was it the only SEC school with a pre-vet major and a vet school, a career choice prompted by his love of horses. So, the college freshman at LSU picked up his phone and started calling coaches at other SEC schools about playing for them as a walk-on. Auburn hadn't been anywhere near the top of his list, but after a series of "nos," Auburn's "yes" was the sweetest word he'd ever heard. A team was giving him a chance.

Though extremely close to his parents, Richardson had said nothing to them about his intense search for a team to play for until he'd applied and been accepted to Auburn's College of Agriculture.

"They weren't happy about it when I first told them, mainly because at LSU, I'd still have been at home, and Auburn meant me moving away," he says. "But they knew how bad I wanted to play football and how ecstatic I was about the chance Auburn was giving me, and they felt good about that."

Richardson sat out the 2008 season at Auburn, but in 2009, he played linebacker and on special teams in 13 games. A few games into the 2010 season, however, calamity struck again when he blew out his knee on a routine tackle, tearing his ACL, MCL and meniscus.

"I remember having a ton of emotions when they were carrying me off the field and a lot of regret, thinking how my football playing days were probably over," he says.

Once again, though, prayer—first with team chaplain Chet Williams and then one-on-one with God—pulled him through, and the encouragement from his coaches and teammates worked wonders for his spirit. His surgery went well, his recovery's slower than he'd hoped, but steady. Spring training was out, but he built up a strenuous workout routine that had him ready to hit the practice field with the team when preseason workouts began this summer.

"I can run fine; it's the stopping fast and side-to-side moves that I'm still having trouble with," he says.

He's been on the sidelines thus far in the 2011 season but says he has another year of eligibility and by the 2012 season should be back at full speed.

In retrospect, Richardson's convinced that Katrina, LSU's rejection and his serious knee injury at Auburn all have happened for a reason.

"I didn't start taking school seriously till Katrina hit and we had to move to Baton Rouge," Richardson says. "In New Orleans, I mostly hung out with my friends, but in Baton Rouge I didn't know anybody to hang out with, so I started studying a lot."

And though Richardson thought it was the end of the world in 2008 when LSU turned him down, he now counts that a blessing.

"Football was my world back then, and though I still love it and thank God for the opportunity to play it, I've come to realize since I've been at Auburn that there's a lot more to life than football," Richardson says. "It's about doing my best in a way that will help others."

Transferring to Auburn also has allowed him to mature and become more responsible—something that might not have happened had he stayed in Baton Rouge.

"I have the greatest parents in the world, but if I'd been at LSU, I probably would have relied on them to take care of just about everything for me," he says. "Coming here, I've had to do things on my own, make my own decisions and learn from my mistakes. I needed that."

Plus, if he hadn't come to Auburn, he'd have missed out on the College of Agriculture.

"I'd never been to Auburn till I came for SOS (a one-day orientation for transfer students), and the minute I walked on campus, I knew this place was different," he says. "By the time I left, the people I'd met in the College of Ag had made me feel like I already belonged."

Sure, he'd love to go pro one day. But just in case, he's planning on vet school.

Jobs, Money and Skills

by PAUL M. PATTERSON, ASSOCIATE DEAN FOR INSTRUCTION

Job markets and investment opportunities in the food and agricultural sector continue to be robust. Indeed, the colorful investor and frequent business talk-show guest Jim Rogers was quoted in the March 9, 2009, edition of Bloomberg News as saying: "The farmers are going to drive the Lamborghinis; the stockbrokers are going to drive taxis; the smart stockbrokers will drive tractors for the smart farmers."

A recently released USDA report, "Employment Opportunities for College Graduates in Food, Renewable Energy, and the Environment: United States, 2010-2015," supports Rogers' optimistic outlook on this sector and its employment opportunities. According to the report, between 2010 and 2015 in the U.S., some 54,400 jobs will be open for individuals with baccalaureate or higher degrees in food, renewable energy and environmental fields.

This is a 5 percent increase in demand when compared to 2005 through 2010. However, colleges of agriculture are still not graduating enough students and are projected to produce only about 29,300 graduates per year. Even with available graduates from other related fields, there is a projected shortfall in the number of qualified graduates, particularly in some fields, such as plant genetics, plant breeding, climate change, food safety and food security. The report also highlights jobs expected to have a growing number of positions through 2018, including environmental scientists, management analysts, market research analysts, public relations specialists, soil and plant scientists, technical writers, veterinarians, food scientists, financial analysts, animal scientists and others.

This strong employer demand suggests that salaries should increase or at least remain strong. A survey of recent baccalaureate graduates from the 2010-11 academic year conducted by colleges of agriculture at Auburn and 14 other universities found the average starting salary increased by 1.2 percent from a year ago. The highest starting salaries were earned by graduates from biosystems engineering programs, with an average of $47,444. This was followed by graduates from food science programs, $43,953, and from agricultural economics and business programs, $42,026.

Employer views on skills needed by graduates were also recorded in a survey recently released by the Association for Public and Land Grant Universities. This survey analyzed so-called soft skill clusters. Employers ranked them in importance from highest to lowest: (1) communications, (2) decision making/problem solving, (3) self-management, (4) teamwork, (5) professionalism, (6) experiences and (7) leadership. Employers said colleges of agriculture are doing a good job in equipping graduates with technical skills and knowledge of their disciplines. Development of soft skills is not as highly perceived, yet employers rank soft skills ahead of disciplinary knowledge and technical skills in importance. It is believed that disciplinary skills are expected of all job candidates, while soft skills are those that differentiate the best from the rest.

It is not surprising to see the communications cluster rated the highest among employers, as this is a common survey finding. Interestingly, the study provides rankings on specific communications skills. The top three communications skills employers value are, from the top, effective listening, accurate and concise communications and effective oral communications. Effective written communications ranked fifth in importance among employers.

Although experiences were considered important, employers ranked it sixth among the soft skills clusters. Within this cluster, employers ranked internships or related work experiences as the most important experience, followed by teamwork and leadership experiences. Employers want candidates with experiences that make them ready to work.

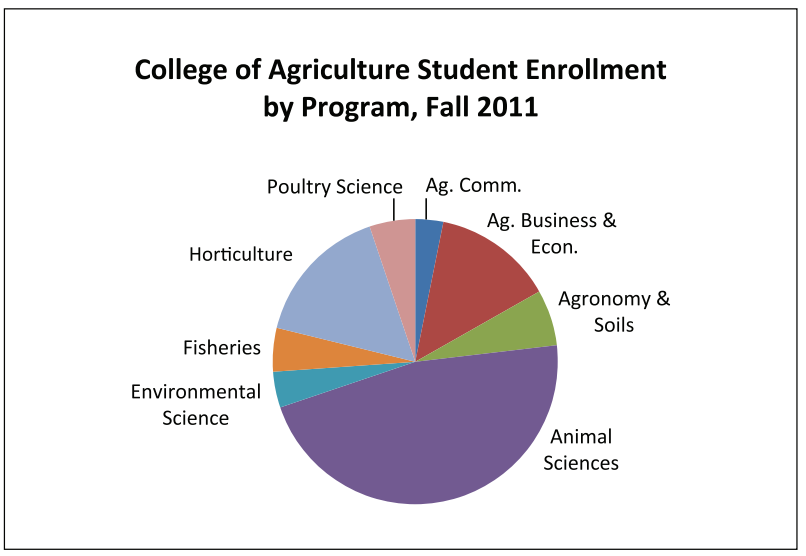
The College of Agriculture strives to prepare our students and make them ready for work. We want our graduates to stand as the best among the rest. We do not want them driving taxis.

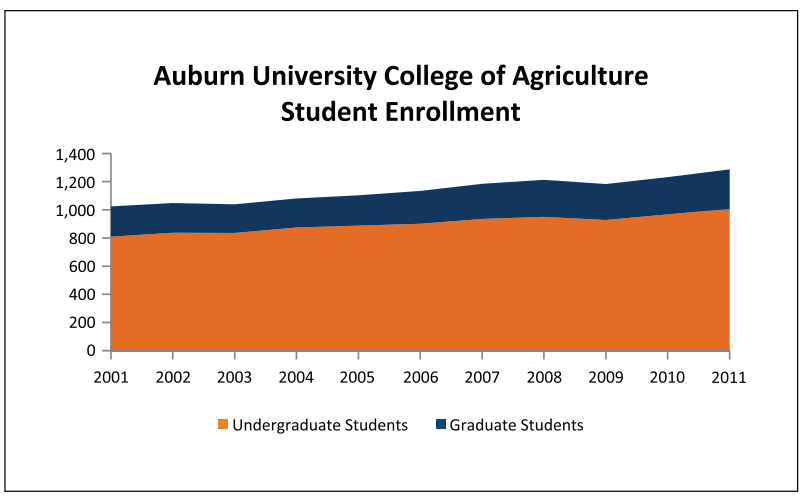
For more information, go to: www.ag.auburn.edu/go/208 or www.ag.auburn.edu/go/209. Reports on starting salaries are available from the College of Agriculture's Student Services Office, 334-844-3201 or mhr0001@auburn.edu.

College Enrollment Continues to Grow

by PAUL M. PATTERSON, ASSOCIATE DEAN FOR INSTRUCTION

Student enrollments in the College of Agriculture reached record levels again in fall 2011, continuing an upward trend that began in 2000. The official college enrollment is 1,006 undergraduate students and 281 graduate students, for a total of 1,287. This represents increases of 38 and 28 students among undergraduate and graduate students, respectively, from a year ago.





The undergraduate enrollment includes 41 students in the environmental science bachelor's degree program now administered by the Department of Agronomy and Soils and conducted in cooperation with Auburn's colleges of Engineering and Sciences and Mathematics. Food science programs also became part of the college during the last year and these students are counted in the undergraduate and graduate enrollment.

The reported enrollment does not include the record 133 undergraduate students enrolled in biosystems engineering. Faculty members in this department are in the College of Agriculture, but this accredited engineering program is administered through the College of Engineering. The official graduate enrollment number also does not include 18 graduate students in biosystems engineering and eight master's degree students in the interdisciplinary rural sociology program, in which College of Agriculture faculty serve as mentors.

The average ACT score for freshman students admitted to the college rose from 26.2 in fall 2010 to 26.9 in fall 2011. Residents' scores improved from 25.1 to 26.2 and nonresidents' from 26.9 to 27.2.

The Department of Animal Sciences continues to have the largest undergraduate enrollment in the college with 469 students, up slightly from a year ago. Next are horticulture with 161 students and ag business and economics with 137 students. The world-renowned Department of Fisheries and Allied Aquacultures continues to have the college's largest graduate program with 86 master's and doctoral degree students. The Department of Agricultural Economics and Rural Sociology has 55 graduate students.

Undergraduate enrollment in the college is nearly balanced with regard to gender—501 men and 505 women—but women accounted for 65 percent of the incoming class of enrolled freshmen. African American and Hispanic students account for 3 and 2.3 percent of total student enrollment in the college, respectively. Among incoming freshmen, however, each group accounted for 3.9 percent of the enrolled students, suggesting that the student population in the college is becoming more diverse.

The College of Agriculture is actively seeking to grow its student enrollment. Our global society faces great future challenges related to food production and the environment in a world with a rapidly growing population. There is an urgent need to prepare the next generation of leaders and scientists to address these future challenges.

Faculty and Staff Accomplishments

Three poultry science faculty members were stars at the Poultry Science Association's 100th annual meeting in St. Louis, Mo., in July. **Ed Moran** was honored with the Merial Distinguished Poultry Industry Award and **Joe Hess** with the Phibro Extension Award. **Sacit "Sarge" Bilgili** was named a Poultry Science Association Fellow.

Deborah Solie, **Megan Ross**, **Paul Patterson**, **Ann Gulatte**, **Julie Morlock**—all in the College of Ag's dean's office—and **Max Runge** from the Department of Agricultural Economics and Rural Sociology, were also stars in their very own video that placed third in a spirit video contest sponsored by the Auburn University Bookstore. Go to www.ag.auburn.edu/go/202 to view their prize-winning acting.

Michael Williams

Michael Williams, professor of entomology and plant pathology, was recently named an honorary member of the Entomological Society of America. Honorary membership acknowledges those who have served the Entomological Society of America for at least 20 years and have made significant contributions to the society.

Three College of Ag faculty members received campus-wide recognition at the 2011 Auburn University Faculty Awards program in early October. **Henry Fadamiro** in the Department of Entomology and Plant Pathology was honored as an alumni professor, **Mark Dougherty** in the Department of Biosystems Engineering was cited as a member of the team that won the first-ever President's Outstanding Collaborative Unit Award and **Leonard Bell**, head of the food science program in the Department of Poultry Science, was honored as a winner of Auburn's Gerald and Emily Leischuck Endowed Presidential Award for Excellence in Teaching.

Jacek Wower, professor of animal sciences, was invited to write a point-of-view article for the publication RNA Biology, which also used two illustrations of Wower's research on the cover of its July/August issue. This is the fourth journal cover illustrating Wower's research. Go to www.ag.auburn.edu/go/203 to see the issue.

Alan Wilson and **Russell Wright**, both faculty members in the Department of Fisheries and Allied Aquacultures, are part of a research team that was awarded a $247,891 U.S. Geological Survey grant to study toxic blooms of cyanobacteria, commonly known as blue-green algae and shown to lead to the poisoning of drinking water supplies, aquatic food webs, livestock, pets and, in extreme cases, humans.

Sushil Adhikari in biosystems engineering received $124,298 in funding from the Department of Transportation-Southeastern SunGrant for a project addressing renewable hydrocarbon fuels from biomass.

Dennis Devries, professor of fisheries and allied aquacultures, was recently recognized for his work on the snail species *Tulotoma magnifica* that has been downlisted from endangered to threatened by the U.S. Fish and Wildlife Service. Devries has worked with this species since his arrival at Auburn and received a plaque on behalf of Auburn University for his role as one of the partners in these efforts. View a video from Outdoor Alabama regarding the ceremony at www.ag.auburn.edu/go/210, and learn more about the snail species at www.ag.auburn.edu/go/204.

MSNBC broadcasted live from Toomer's Corner on July 24 with **Gary Keever**, professor of horticulture, as the featured guest. View the show at www.ag.auburn.edu/go/207. His segment can be found about 2 minutes and 40 seconds into the clip.

An article reporting recent horse-weight-estimation research findings that Auburn equine sciences assistant professor **Betsy Wagner** and research associate **Patty Tyler**, both in the Department of Animal Sciences, have made was posted Sept. 15 at The Horse.com. The study's goal was to determine which of three commonly used techniques to estimate horse weight comes closest to an animal's true weight. Read the article at www.ag.auburn.edu/go/205.

Nada K. Nadarajah, senior research fellow of animal sciences, was an invited speaker for the Kerr Center for Sustainable Agriculture in Oklahoma in September at their annual Goat Field Day. Learn more at www.ag.auburn.edu/go/206.

Student Accomplishments

Michael Chislock

Michael Chislock, a Ph.D. student of fisheries and allied aquacultures working with associate professor **Alan Wilson**, has been awarded a three-year, $126,000 graduate fellowship from the Environmental Protection Agency. The prestigious research award is funded through the EPA's extremely competitive Science to Achieve Results, or STAR, program. In May, Chislock was recognized as one of Auburn University's 10 most outstanding master's students. He also worked summer semester as a graduate student mentor in the National Science Foundation-funded Research Experiences for Undergraduates warm-water aquatic ecology program led by Wilson.

Poultry science graduate students **Lindsay Stevens** and **Zac Williams** both won Graduate Research Awards and **A. Brooke Caudill**, also a graduate student, won the American Egg Board Research Award during the Poultry Science Association's 100th annual meeting held in St. Louis, Mo., in July.

Jatinder Aulakh, a Ph.D student working with **Andrew Price** of the National Soil Dynamics Laboratory and **Stephen Enloe** of the Department of Agronomy and Soils, finished third in the Southern region at the National Weed Science Competition, affectionately known as the Weed Olympics, in Knoxville, Tenn.

Tabitha Welch

Tabitha Welch, a graduate student in animal sciences, placed first in an Iron Chef competition at the national meeting of the American Meat Science Association. Welch, along with six other team members from all across the U.S., won with their creation of "turkey jerk." The competition is similar to the "Iron Chef" television show, where a secret ingredient—in this case turkey—is announced, and participants have a set time limit to turn it into a meal. The meeting was held this summer at Kansas State University in conjunction with Cargill Meat Solutions. There were 96 students representing 30 universities with 13 teams total in the competition.

Scholarship Donors and Recipients Recognized

The College of Agriculture held its annual scholarship recognition program on Aug. 20, awarding $520,426 in 2011-12 scholarship awards to 225 deserving students. During the ceremony, held in the Ham Wilson Livestock Arena, the college recognized the recipients of the 130 scholarship programs overseen by the College of Agriculture.

"Scholarships play an important role in helping students meet their financial needs while in college, and they enable us to recognize excellence in academic performance and leadership," says Paul Patterson, associate dean for instruction in the College of Agriculture. "The college is grateful for the generous support provided by many friends and supporters."

To see a list of all the College of Agriculture scholarships, their donors and the 2011-12 recipients, go www.ag.auburn.edu/students/scholarships/.

TOP STUDENT—Curran Gehring of Redmond, Wash., a master's student in the Department of Poultry Science, is this year's recipient of the prestigious Novus International Research Award. The award was established in 2004 by Novus International Inc., a leading developer of animal health and nutrition programs for the poultry, pork, beef, dairy, aquaculture and companion animal industries. The company established the annual cash award with a $200,000 endowment to support Auburn University College of Ag graduate students who have demonstrated research excellence in one or more of the areas of animal nutrition, metabolism, growth and development or health and disease. In addition to the award, Novus typically offers recipients paid intern positions within the company based on the needs of the company and the research expertise of the student.

After the Spill

'How Clean Is Clean?'

Agronomy Professor Looking for Ways To Rid Gulf of Pollutants *by* KATIE JACKSON

In spring 2010, Auburn soil microbiology professor Yucheng Feng was using the Exxon Valdez oil spill as an example to teach her soil microbiology class about bioremediation and biodegradation. Before the semester was over she had an example from much closer to home—the BP oil spill in the Gulf of Mexico.

Soon, Feng, whose research as a scientist in the Department of Agronomy and Soils focuses on the microbial processes involved in soil and water productivity and quality, was directly involved in the BP spill response.

When the call went out to Auburn faculty to help with the BP spill, Feng signed up, and in December 2010, she and her research team conducted their first sampling of sediment and seawater on the western side of Mobile Bay and began analyzing those samples, as well as others collected by Auburn geologists.

"Basically we are trying to answer the question: How clean is clean?" Feng says.

Though some of the components of the oil break down fairly quickly and easily through weathering and natural biodegradation, others have more complicated chemical structures and are much harder to break down. These are also the components that are more toxic to humans and other living organisms.

In their investigations, Feng and team are trying to determine what was left behind after that initial degradation of the BP oil and how these components can be further degraded. Specifically, they are looking at indigenous organisms, isolating and identifying microorganisms present in the natural Gulf environment are determining how successfully these organisms can degrade the more-resistant chemicals and what kind of degradation genes they carry.

"We are still in the discovery phase of this research," she added. "We have isolated the natural degrading organisms in the sediment samples. The next thing is to figure out how much of the chemicals can be broken down by these natural organisms and how much they are leaving behind. We also want to find out what happens to those chemicals that are left behind."

LEARNING FROM THE SPILL—Yucheng Feng is one of many Auburn scientists working on issues related to the BP oil spill. Results of her research may help determine how clean Gulf waters are and how to manage an oil spill should it happen again.

She also is working with Auburn civil engineering faculty to develop nanoparticles that may be able to remove the more resistant chemical residues.

Feng, who studied soil and agricultural chemistry for her undergraduate degree at Beijing Agricultural University in her native China, came to the U.S. in 1989 with a special interest in soil pollution and remediation. She conducted her research for her master's and doctoral degrees at Pennsylvania State University and for her post-doctoral research at Michigan State University on this issue. Since joining the Auburn College of Agriculture faculty in 1998, Feng has continued that research, concentrating especially on the environmental fate and impact of organic pollutants and other contaminants in soil and water.

Though Feng and her colleagues know they won't find answers overnight, they see this basic research as vital. "The ultimate goal is to find ways to make the Gulf Coast as clean as possible and prepare for the next spill," she said. "It is important to figure this out because, with as many oil wells as we have in the Gulf, it could happen again."

Lotus Taste-Testers Give Sample Dishes a Thumbs-Up *by* JAMIE CREAMER

The Auburn University Lotus Project research team in its first decade collected hundreds of distinct and diverse lotus cultivars from around the world. The team developed production techniques that could position Alabama farmers to be major players in the nation's growing ornamental lotus market, and is now exploring the ancient aquatic plant's potential as a food crop in the South.

LOTUS FOR YOUR STIR-FRY—No, the unusual item in this stir-fry isn't wagon-wheel pasta; it's thinly sliced lotus root. The stir-fry was among several lotus dishes volunteer taste-testers evaluated as part of the Auburn University Lotus Project.

And based on results from recent taste tests held in Auburn, the plant that is a staple in the diet of millions of people worldwide stands a very good chance of catching on here.

Though all parts of the lotus are edible, the authentic Chinese lotus dishes prepared for the volunteer lotus-sampling panelists featured the root—aka the rhizome, or underground stem—in the form of lotus chips, stir-fry, salad and soup as well as a lotus sauce for chicken tacos.

In the taste trials, the 69 participants were asked to rate each dish in terms of flavor, texture, aroma and appearance and how likely they would be to accept lotus as a food item, to recommend lotus dishes to others and to purchase fresh lotus or lotus products if they came across them in their supermarkets.

Analyses of the survey results indicate that producers of edible lotus would have a market for their crops. Among the dishes sampled, the spicy, oven-baked lotus chips got a thumbs-up from a majority of the 18- to 24-year-old taste testers, while the salad made with thinly sliced lotus root appealed to panelists 55 and older, but overall, the stir-fry got the highest marks. More than 93 percent of taste panelists said they would eat it again, 81 percent said they would recommend it to others and 67 percent said they would consider buying such a product if it were available.

Also significant in the findings was that a majority of panelists, almost 52 percent, said they would be willing to buy fresh lotus root and cook it at home.

Deacue Fields, ag economics associate professor at Auburn, and graduate research assistant Shannon Sand conducted the survey. Fields also is leading economic analyses of the production and marketing of lotus crops.

Horticulture associate professor Floyd Woods, lead investigator in the edible-lotus study and a post-harvest physiologist evaluating the plant's nutritional composition, says though introducing a new specialty food crop is always a challenging, long-term project. Lotus would have an edge because national demand for it is increasing, primarily via sales at international fresh markets popular among ethnic groups. Currently, all edible lotus sold in the U.S. is imported from China and South America; those imports totaled $5 million in 2009, up $1 million from '08.

Woods says that in interviews with produce managers at a number of international markets, freshness was a major issue with the imports, and that could mean ready markets for Alabama-produced lotus.

The multifaceted, interdisciplinary Auburn University Lotus Project began in 2000 with the goal of developing lotus—both the ornamental and the edible varieties—as an alternative crop that would open new economic opportunities for Alabama residents, particularly in the state's poverty-plagued Black Belt region.

Initially, lotus researchers, led by horticulture professor Ken Tilt, developed techniques by which Alabama growers can force greenhouse-produced lotus to grow and bloom in early spring, right at peak flower-buying time. That the production method works is evident at Ten Mile Creek Nursery in Samson, which since 2008 has been producing ornamental lotus for mass retail markets in the northeast, wholesale cut-flower markets in Atlanta and online sales.

For more about lotus research at Auburn, go to www.ag.auburn.edu and search for Lotus Project.

State's Isolated Wetlands To Be Mapped, Classified

by JAMIE CREAMER

Over the next three years, a team of scientists at Auburn University will create a map of Alabama's geographically isolated wetlands in an effort to better protect these environmentally beneficial and often-overlooked ecosystems from development and other land-use changes.

Funded by a $363,800 Wetland Program Development Grant from the Environmental Protection Agency, the researchers will use geographic information system technology to chart those wetlands throughout the state that are physically isolated in the sense that they are surrounded by dry land with no apparent connection to surface water.

By their nature, geographically isolated wetlands are extremely vulnerable to adverse impact from human development, says Sam Fowler, Auburn agricultural economics associate professor and director of the university's Water Resources Institute.

"These areas perform many of the same crucial ecosystem functions that other wetlands do," Fowler, principal investigator in the study, says. "Those functions include retaining stormwater runoff, recharging groundwater, improving water quality by trapping sediment and filtering nutrients and pollution and creating invaluable wildlife habitat.

"Isolated wetland systems support high levels of biodiversity, including significant numbers of species and ecological communities of conservation concern," Fowler says. "Obviously, the loss or degradation of these wetlands negatively impacts Alabama's native fauna, flora, soils and water quality."

In Alabama's State Wildlife Action Plan, isolated wetlands are identified as one of 15 priority wildlife habitats because they provide natural environments for 13 native wildlife species of greatest conservation need.

Once the scientists have mapped the isolated wetlands, they will conduct field surveys, not only to validate the mapping but also to evaluate and ecologically classify the wetland communities and identify reference wetlands and areas that are suitable conservation targets.

Fowler says the project will support the Alabama Department of Environmental Management's new wetlands management plan in that it will strengthen the state's ability to implement a comprehensive wetlands program by providing baseline data to fill information gaps.

Other members of the research team include Auburn geography associate professor Luke Marzen and Michael Barbour and Al Schotz, both with the Auburn University Environmental Institute's Alabama Natural Heritage Program.

GETTING BURNED—Leaves on an Alabama pecan tree shows symptoms of pecan leaf scorch, a disease caused by the bacterium *Xylella fastidiosa*. The pathogen also causes phony peach disease in peaches, Pierce's disease in grapes and plum leaf scorch in plums.

Scientists Study Bacterial Disease Progression in Plants

by JAMIE CREAMER

A vicious, disease-causing plant bacterium that costs fruit and nut producers across the U.S. millions of dollars in crop losses a year and that is best known for wiping out California grape and almond crops also infects peach, plum and pecan trees as well as grape vines in Alabama, not to mention peaches and, most recently, blueberries in Georgia.

Vectored by glassy-winged sharpshooters and other insects, the pathogen *Xylella fastidiosa* makes its way into a plant's xylem, which are channels that carry water and nutrients from the roots of the plant to the leaves, and, as it multiplies, forms what's called a biofilm. The prevailing theory among scientists is that the *X. fastidiosa* biofilm eventually fills the channels, cutting off a plant's water supply.

Auburn plant pathologist Leonardo De La Fuente and biological scientist Paul Cobine, however, are testing a different hypothesis: that some of the same minerals and metals that plants need to survive also are essential to the growth of *X. fastidiosa* bacteria and the formation of biofilm. That could mean that the bacteria's modus operandi is to rob their plant hosts of these vital nutrients.

In their research, the AAES scientists are tracking the complete mineral nutrient compositions of both healthy and *X. fastidiosa*–infected plants and the nutrient compositions of biofilm and examining how those compositions change once the bacteria infect the plants.

"In animals, it is known that the capture of minerals that are essential to the host animals' existence by pathogenic bacteria affects the progression of disease, but the role of mineral nutrients and trace elements in the development of plant diseases is often overlooked," De La Fuente says. "Our goal is to understand how *X. fastidiosa* infection impacts the mineral nutrient composition of plants and how that, in turn, affects disease development."

Currently, once a plant is infected, it rarely survives, and growers' only means of protecting their crops from the pathogen are pesticides that ward off glassy-winged sharpshooters. The researchers' identification of minerals that are necessary for the bacterium to thrive could lead to new fertilizer formulations that would fortify infected plants as well as other environmentally sound control methods for *X. fastidiosa*.

Toomer's Oaks: Cloned, and Not Forgotten

Scientists Investigate Reproducing Hallowed Trees

by JAMIE CREAMER

OH, SHOOT; A CLONE—Even as Auburn's hallowed Toomer's oaks continue to succumb to the deadly poison that was maliciously applied to them in late 2010, horticulture researchers are on a mission to successfully clone the trees while there's still time.

Chances are slim to none that the two aged live oaks at Auburn's Toomer's Corner will survive the massive dose of the deadly herbicide tebuthiuron maliciously applied to them in late 2010, but Auburn horticulture faculty are working to ensure that the hallowed trees live on…by cloning them.

The researchers' hope lies in the multitude of green sprouts emerging beneath the waning trees' canopies. No, they aren't seedlings; they are tender, young shoots that are growing directly from the oaks' rhizomes, or horizontal stems that run just below the earth's surface.

In a study that could lead to a collaborative research venture between Auburn and the University of Alabama, horticulture professor and Toomer's Oaks Task Force spokesman Gary Keever is collecting cuttings of these rhizomic shoots to determine whether the cuttings, despite the poisoning, will root successfully. If so, these young shoots ultimately could be used to clone Toomer's oaks clones in perpetuity.

"Oaks typically are propagated by seeds, so they have a mix of genes from both parent trees," Keever says. "But rhizomic shoots are vegetative tissue that are actually part of the tree, which means they're genetically identical to the oaks on the corner."

Yes, the shoots are basically new growth on two fatally poisoned oaks, but, Keever says, many either are not showing signs of poisoning or the signs are less pronounced.

"Research on live-oak propagation and cloning that has been done through the years has shown little to no success in rooting cuttings taken from the crown of old trees, and the Toomer's oaks are over a century old," he says. "But rhizomic shoots are young and vigorous and maintain the rooting potential of young trees because of a characteristic called juvenility. We're hoping to identify rooting methods where these cuttings can be rooted consistently in high percentages."

Though Keever and his team are focusing their cloning efforts on the two Toomer's oaks, the development of effective clonal propagation techniques could have an impact far beyond Auburn.

"Once we determine the procedures for the successful clonal propagation of the Toomer's oaks, those same techniques or others may be used to clone other historic trees on campus, like the white oak on the President's House lawn and the Founder's post oak in the arboretum, and significant trees across the state," he says.

That includes special trees at the University of Alabama in Tuscaloosa, and that's where the possible AU/UA joint research venture comes in. Auburn Graduate School Dean George Flowers and Graduate School Dean David Francko at Tuscaloosa have committed to help fund a graduate student position at their respective schools, with the students collaborating on the project to clone not only the oaks at Toomer's but equally significant trees on Alabama's campus. Their findings could lead one day to clonal propagation of the state's valuable Alabama Forestry Commission–designated Champion Trees as well as endangered species.

Ag Roundup, Taste of Alabama 2011 Set for Nov. 19 at Ag Heritage Park

Auburn University's largest tailgate party—the ever-popular Fall Roundup and Taste of Alabama Agriculture—will be held Nov. 19 at Ag Heritage Park just prior to the Auburn/Samford homecoming game.

Ag Roundup was initially organized more than 30 years ago as a reunion for alumni and friends of Auburn's College of Agriculture. The Taste of Alabama Agriculture component was added later to spotlight the diverse foods and products produced by Alabama farmers and to increase awareness of agriculture's importance to the state's economy.

Each year, Ag Roundup draws thousands of Auburn fans who, for the $5 entry fee, can sample everything from corn dogs, sausage, grilled burgers and fried catfish to rabbit, boiled peanuts, turnip greens and sweet potato fries.

In addition to the food, Roundup features live and silent auctions that raise money for College of Agriculture scholarships, informative displays from Auburn University departments and organizations and various commodity groups and music, children's activities and visits from the AU Pep Band and the AU Cheerleaders.

YUMMM—The crowds will be lining up for yummy foods at this year's Ag Roundup and Taste of Alabama Agriculture. Among the options will be, left, sweet potato chips and turnip greens. The event will also feature a wide range of meats such as beef, chicken, catfish, corn dogs, sausage and much more. One thing's for sure, no one has to leave for the Homecoming game hungry.

Ag Roundup/Taste of Alabama Agriculture begins three hours before the kickoff of the homecoming game. The event is cosponsored by the College of Agriculture and the AU Agricultural Alumni Association, with corporate partners Milo's Tea and John Deere.

Admission is $5; children 6 and under are admitted free. Tickets are available at the gate.

Ag-related businesses and organizations are invited to set up Ag Roundup exhibits free of charge. Each exhibitor will be provided about 15 feet of setup space, a table and chairs and can bring its own small (8- by 8-foot or 10- by 10-foot) tent. Product sales are not allowed, but product samples are. Donations of auction items are also welcome.

For more information, call 334-844-3204 or 334-844-3596 or send an email to rollome@auburn.edu.

In Memoriam

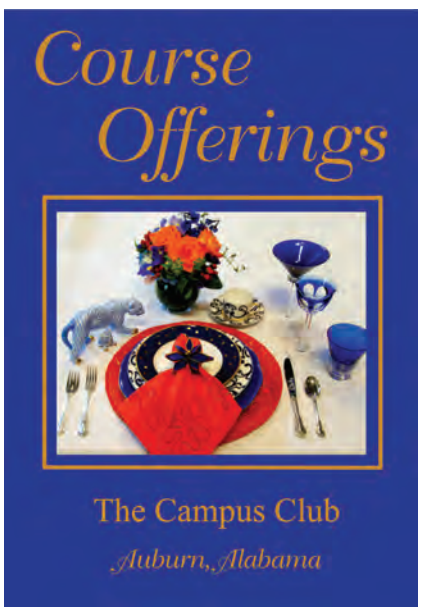
Emerson Medlock "Mike" Evans of Auburn, professor emeritus of agronomy and soils, passed away Aug. 19. Memorial gifts may be made in his honor to the Auburn First Baptist Church Music Ministry or their Renovation and Renewal fund.

Willie L. Strain, former head of Extension Communications, passed away Sept. 14. Donations in his honor may be made to the South East Alabama Sickle Cell Association.

Recipes Abound in Campus Club's New Fundraising Cookbook

A brand-new cookbook featuring more than 650 mouthwatering recipes contributed by members of the Auburn University Campus Club will make its debut Homecoming Saturday, Nov. 19, at the 2011 Fall Ag Roundup and Taste of Alabama Agriculture.

Dubbed "Course Offerings," the 500-page treasure will sell for $25, with proceeds going to support the Campus Club First Ladies Endowed Scholarship Fund that the organization established in 2005 to award scholarships to students majoring in horticulture or related disciplines scholarships in the names of each of Auburn's first ladies. In spring 2011, some 16 first ladies scholarships were presented.



'CAN I HAVE THAT RECIPE?'—The Auburn University Campus Club's hot-off-the-presses cookbook, "Course Offerings," will go on sale at this year's Ag Roundup on Nov. 19. The 500-page cookbook, which will sell for $25, includes 650-plus favorite and in-demand recipes from club members' personal recipe collections. Proceeds from sales of "Course Offerings" will benefit the Campus Club First Ladies Endowed Scholarship Fund.

Kathey Davidson, cookbook committee chairwoman, says the book was compiled based on the theme, "Can I have that recipe?"

"Campus Club members were asked to submit their most-requested recipes—the ones they get asked for every time they prepare the dish," she says.

Sections included between the padded covers of the cookbook's three-ring binder are appetizers and beverages, soups and salads, vegetables and side dishes, main dishes with meal plans and wine suggestions, breads and rolls, desserts, cookies and candies and miscellaneous. The index cross references recipes in several ways.

Club member Cathey Donald handled the task of editing "Course Offerings," Maury Matthews took the cover photograph and Davidson designed the cover. A limited number of first editions will be available.

In addition to sales of the cookbook at Ag Roundup, individuals can email aucampusclub@gmail.com for information on how to purchase a copy. Meanwhile, for a sneak peek inside "Course Offerings," see the recipe on page 12.

Ag Alumni Group Announces 2012 Hall of Honor Inductees

Five outstanding individuals in Alabama agriculture will be honored Feb. 23, 2012, when the Auburn University Agricultural Alumni Association holds its 2012 annual meeting and Hall of Honor Banquet at The Hotel and Dixon Conference Center in Auburn.

This year's inductees into the Hall of Honor, which pays tribute to living Alabamians for their contributions to Alabama agriculture, are Herman McElrath of Albertville representing the agribusiness sector, Homer R. (Rudy) Schmittou of Auburn representing the education/government sector and Ben F. Bowden of Eufaula representing the production sector. The late George Blake Jr. and William M. Warren, both former faculty members in the College of Agriculture, will be added to the list of Pioneer Award winners, who are honored posthumously for their contributions to the state's agriculture.

Tickets to the banquet and awards ceremony are $50 per person and should be purchased by Feb. 9, 2012.

The association also is offering corporate sponsorships that help fund the banquet. Platinum Corporate sponsorships are available for $2,000, with sponsors receiving eight complimentary banquet tickets, a commemorative plaque and recognition in the banquet program. Gold Corporate sponsorships are $1,000 and include four complimentary tickets, a commemorative plaque and recognition in the banquet program. Silver Corporate sponsorships are available for $500 and carry with them two complimentary tickets, a commemorative plaque and recognition in the banquet program. Bronze Corporate sponsors at the $250 level will receive one complimentary ticket and recognition in the banquet program.

For more information on banquet tickets and sponsorships, contact Elaine Rollo at 334-844-3204 or rollome@auburn.edu.

Horse Sense

Stable Thinking

Alums Offer Both at H&G Horse Quarters

by KATIE JACKSON

When it comes to teaching good sense, there's no better educator than a horse, a lesson learned by two College of Agriculture alumni and their families when they opened H&G Horse Quarters equestrian center just outside Auburn six years ago.

H&G's founders—Ambers and Jean Hanson and Walter and Dorothy Grimes—were not experienced equestrians (though Jean did ride her father's mule when she was a girl growing up in Cleburne County, much to her father's ire). However, in an effort to mentor young people, the couples have learned horse sense firsthand.

The Grimeses and Hansons met at Auburn in 1957 when they lived next door to one another. Dot, a native of South Carolina who had met Walter when he was stationed there in the military, and Jean became best friends literally over the fence that separated their properties. The husbands soon became buddies as well, a relationship that also shared a common denominator—the College of Agriculture.

RIBBONS AND RESPONSIBILITY—Girls, the gender most susceptible to the horse bug, of all ages have found a safe and nurturing place to spend their time and focus love for horses at H&G Horse Quarters, an equestrian center in Loachapoka, Ala., that was established by College of Agriculture alumni Ambers Hanson and Walter Grimes. H&G's girls, and even one young man, have chances to earn ribbons, but more importantly learn about responsibility.

Ambers, also a native of Cleburne County and the son of small family farmers, graduated from Auburn in 1952 with degrees in agricultural sciences and agricultural economics, then went to work for the Soil Conservation Service, now the Natural Resources Conservation Service, where he spent 30 years working primarily in Alabama before retiring in 1982.

Walter, the son of a Covington County farm family, graduated from Auburn in 1954 with a BS degree, a master's in 1956 and the Ph.D. in 1965. He went to work full time in 1963 for what is now Bayer CropScience, and he and Dorothy moved to Kansas City, Mo., in 1964, at which time the Hansons had also moved away to North Carolina.

"Somehow we managed to remain friends over the miles," says Jean, the closeness sustained in part because the couples co-owned land back in the Auburn area, which the Hansons, who had moved back to Auburn, managed while the Grimeses were living in Missouri.

When Walter retired from Bayer as senior vice president for research and development in 1996, he and Dorothy decided to return to Auburn to be closer to children, grandchildren and the Hansons. Once reunited in Lee County, the husbands began playing golf together but soon decided there was more to life, and to retirement, than golf. That's when Walter ran into Greg Williams, coach of Auburn University's Equestrian Team, who told him that Lee County sure needed a nice barn to board horses.

Thinking this might be a great use for the 65 acres they co-owned in Loachapoka, the couples explored the idea and decided to build a barn.

"The theory was that this could be a kind of mission for college girls to give them a place to hang out instead of going to the mall or bars," says Walter.

"We wanted to share this place with other people," adds Ambers, noting they were striving for a safe, drug-free, healthy, nurturing environment.

Since they opened in 2005, the scope of their facility has expanded—in addition to English, or hunt seat, riding lessons and boarding, they also offer camps, barn days and birthday parties and host horse shows, many of which are sanctioned by equestrian organizations—as is their infrastructure. With the purchase of some adjoining property, they now have 135 acres complete with riding and schooling rings, 22 stalls, lots of paddock space, riding trails, hayfields and enough space to provide temporary horse stalls and RV parking during their shows.

The evolution of H&G Horse Quarters has been driven by demand.

"We built the place for college girls but within a year elementary, junior-high and high-school girls were the predominant students," says Walter. Though 99.9 percent of their clients are female, there is one young man taking lessons—apparently a very astute young man who knows where the girls are.

This fall H&G's equine residents are from Alabama, Colorado, New Jersey, Indiana, Virginia, Maryland, Florida and even one from the Caribbean. Many belong to Auburn University students majoring in equine science and pre-veterinary or veterinary medicine and a few of whom are vying for slots on Auburn's equestrian team. In fact, the equestrian team connection runs deep at H&G, not just through Williams, the coach, but also through its lead trainer, Kelsey Horowitz, a member of the 2006 National Champion equestrian team.

That staff and H&G's string of 17-plus lesson horses and ponies are fulfilling a big part of H&G's mission—teaching horse sense. "You don't just come out here to ride, you begin the program learning about horses, tack, grooming and how to clean hooves," Walter says.

"We are teaching them responsibility for their horse, their tack, everything that is involved with horses," says Ambers, noting that those lessons can last a lifetime.

"We knew nothing about horses," says Dorothy, adding that she, Jean, Ambers and Walter have gained a great deal of horse sense themselves, which they now use to take exceptional care of the horses and the riders at H&G.

Granted, those horses and riders don't stay forever, and it can be hard to watch them go, but that, too, is part of the business. "With the younger girls, they stay here for four or five years or longer and then many will outgrow horses and move on," says Ambers.

"But some of them don't outgrow it," notes Jean. Those are the ones who are still riding in college or are making careers in the horse industry, which is, the couples note, a big contributor to Alabama's economy.

As for Jean, Dorothy, Ambers and Walter, they are all extremely pleased to be playing a part in that horse industry, and while they don't have plans to expand, they are never, ever bored. There is more to life and retirement than playing golf.

To learn more about H&G go to www.hghorsequarters.com/index.htm or visit their Facebook page at www.facebook.com/HGHorseQuarters.

College of Veterinary Medicine

Society for Theriogenology Honors Wolfe

Dwight Wolfe

Dwight Wolfe, professor in clinical sciences in Auburn's College of Veterinary Medicine, received the David E. Bartlett Award for his contributions to the field of theriogenology during the Society for Theriogenology's 2011 annual conference in August.

Wolfe's impact on the veterinary profession, especially theriogenology, has been far reaching. Theriogenology is the veterinary specialty that deals with animal reproduction.

Wolfe graduated from the University of Tennessee and obtained his doctorate of veterinary medicine in 1977 and his master of science in large animal surgery and medicine in 1982, both at Auburn. He became a diplomate of the American College of Theriogenologists in 1983 and is one of only four diplomates who has served as president of both the American College of Theriogenologists and the Society for Theriogenology.

Named Alabama Veterinarian of the Year in 2004, Wolfe was inducted into the Alabama Livestock Hall of Fame in 2006. The Alabama Veterinary Medical Association presented Wolfe its highest honor, the Distinguished Service Award, in 2009. The following year, he received the College of Veterinary Medicine Dean's Award for Teaching Excellence.

The D.F. Wolfe Teaching Hospital Barn at Auburn University is dedicated in his name.

The David E. Bartlett Award honors the veterinarian who helped coin the term theriogenology and founded the American College of Theriogenologists.

College of Human Sciences

Luncheon, Center Dedication Focus on Philanthropy

Jonna Chizik and Kristi Malzahn

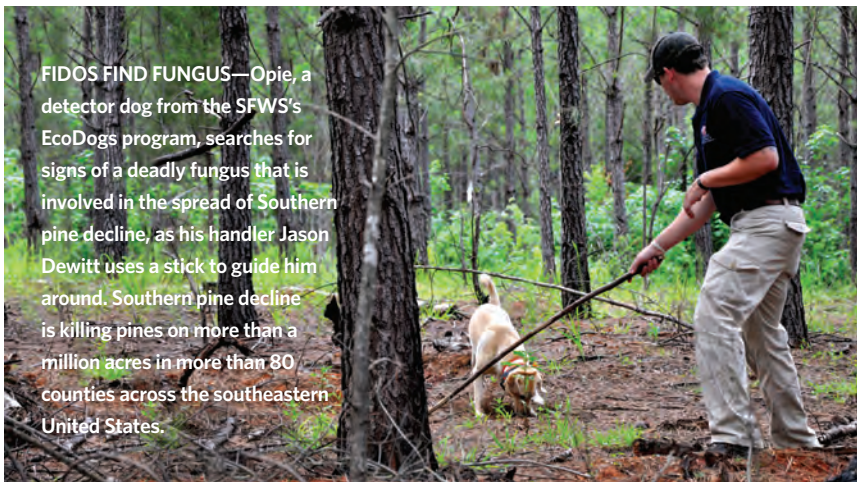
Two prominent figures in the Auburn family led the keynote address at the College of Human Sciences Women's Philanthropy Board fall luncheon in mid-October. "'All In'–Advancing Philanthropy," featured guest speakers Jonna Chizik, co-founder of the Chizik Family YouTurn Foundation Inc. and wife of Auburn head football coach Gene Chizik, and Kristi Malzahn, philanthropist and wife of offensive coordinator Gus Malzahn.

Following the luncheon, Auburn University Board of Trustees members, along with Auburn President Jay Gogue and wife Sally and College of Human Sciences administrators, gathered at the historic Halliday-Cary-Pick House near campus to dedicate the home as the national headquarters of the newly developed Cary Center for the Advancement of Philanthropy and Nonprofit Studies and of the Women's Philanthropy Board. The home, built in 1840, was given to the college to establish the new center by Frances Pick Dillard, a founding member of the Women's Philanthropy Board and steward of the family homestead.

"This magnificent gift of the Halliday-Cary-Pick House and subsequent creation of the Cary Center is a tremendous benefit for Auburn University and the Auburn community," June Henton, dean of the College of Human Sciences, says.

The Women's Philanthropy Board, launched almost a decade ago as a development and outreach activity of the college, focuses on enabling, educating and empowering participants to fulfill their leadership potential, achieve independence as financial donors and decision-makers and serve as mentors to the next generation of philanthropists. The WPB also helps broaden the base of financial support for the College of Human Sciences and since its inception has given more than $325,000 to support student scholarships, faculty awards and various programmatic grants in the college.

For more about the board and the new center, contact Sidney James Nakhjavan, director, at 334-844-3524, wpbchs1@auburn.edu or carycen@auburn.edu.



FIDOS FIND FUNGUS—Opie, a detector dog from the SFWS's EcoDogs program, searches for signs of a deadly fungus that is involved in the spread of Southern pine decline, as his handler Jason Dewitt uses a stick to guide him around. Southern pine decline is killing pines on more than a million acres in more than 80 counties across the southeastern United States.

School of Forestry and Wildlife Sciences

Dogs Enlisted in Battle Against Pine Tree Disease

Lori Eckhardt, associate professor in the School of Forestry and Wildlife Sciences, is training Auburn University detector dogs to sniff out a deadly fungus that is killing Southern pine trees.

The pathogenic fungus involved in Southern pine decline is vectored by beetles that burrow below ground and attack a tree's roots.

"The current way to detect the fungus is to dig up the roots, but this method is time consuming and disturbs the trees, causing them to release stress chemicals that can attract more beetles to the area," Eckhardt says. "Cutting down the trees doesn't help because the beetles stay underground. Airplanes are useful in helping us spot dying trees, but this just looks above ground. We have to look below ground for these beetles."

Here's where dogs come into the picture. Because dogs are noninvasive and do not disturb the beetles or spread the fungus, Auburn's detector dogs, from the SFWS' EcoDogs program, are being trained to sniff out the scent of two fungi, *Leptographium* and *Heterobasidion*, that are attacking tree roots.

Handlers are training the dogs to sit when and where they smell the fungi while scouting a pine stand. The handlers record each "hit," and that lets landowners know where the fungus is located and the percentage of trees infected.

The development of fungus-finding dogs is in the beginning stage, but Eckhardt and the dog trainers hope it will lead to a successful and feasible program in fighting Southern pine decline.

"This could be a very positive step," Eckhardt says. "It's not a cure, but we hope the dogs will help advance our management of the pine plantations and help in our research to stop the disease."

For more information on the EcoDogs program, visit ecodogs.auburn.edu.

College of Sciences and Mathematics

Professors Awarded NSF Funding

Edward Thomas

Four researchers in the College of Sciences and Mathematics' departments of Physics, Biological Sciences and Chemistry and Biochemistry have secured almost $3 million in grants from the National Science Foundation for research projects ranging from the construction of a device to study magnetic forces to understanding invertebrate population distributions in the Antarctic to detecting proteins related to diabetes and obesity.

Edward Thomas, physics professor and director of the Plasma Sciences Laboratory, received an NSF award for $2.1 million to build a magnetized dusty plasma device. Magnetic forces in the device's fully magnetized plasma environment are comparable to electric, gravitational or other interparticle interaction forces and will allow Thomas to study the coupling between neutral atoms, ions, electrons and charged microparticles. The award is through the NSF's Major Research Instrumentation program and is one of the largest MRI projects ever awarded to Auburn University.

Alumni Professor Kenneth Halanych and associate professor Scott Santos, both in biological sciences, were awarded a four-year, $489,305 NSF grant to assess the genetics of Antarctic sea-dwelling invertebrates and how these species are distributed along geographic gradients. The information will help the scientists determine whether these species form broadly distributed populations with considerable genetic exchange or, alternatively, form structured populations, indicating periods of isolation and divergence.

Christopher Easley, assistant professor in chemistry and biochemistry, will use his three-year, $383,786 NSF grant to develop simpler and more sensitive methods for detecting peptides and proteins secreted by small numbers of pancreatic islets, or fat cells, in research related to diabetes and obesity.

New Extension System Director Lemme Takes the Helm

Gary Lemme

Gary Lemme, a soil scientist and former dean of South Dakota State University's College of Agriculture and Biological Sciences, has been named director of the Alabama Cooperative Extension System. Lemme, whose first day on the job was Oct. 1, replaces retiring Extension Director Gaines Smith.

Lemme becomes the third director of Alabama's Extension system, which was created in 1995 with the union of the Extension programs at Alabama A&M and Auburn universities. As the primary outreach organization for the two universities' land-grant mission, ACES works to provide real-life solutions and help improve the lives of all Alabamians.

Both Auburn President Jay Gogue and A&M President Andrew Hugine say they are confident that Lemme brings to the job the type of leadership and expertise that is crucial to Extension as it continues to adapt to the changing needs and demands of its clients. Smith, who is retiring after four and a half decades with Extension, says that, with Lemme, Extension professionals have a strong new leader.

"While I have thoroughly enjoyed my 45-year career, I can retire knowing that I am turning the reins over to a director who is committed to Extension's mission and goals," says Smith, who is working closely with Lemme to ensure a smooth transition in leadership.

Most recently, the new Alabama Extension chief was a professor in the Department of Plant Science at SDSU, the institution from which he received his bachelor's and master's degrees. He completed his doctoral work at the University of Nebraska. In addition to his tenure at his alma mater, Lemme has held a variety of leadership positions at several land-grant institutions including Michigan State University, the University of Minnesota and the University of Hawaii.

He says he is excited to join the ACES family.

"I look forward to working with the Extension professionals as we optimize Extension resources at both universities," he says. "The unique joint system of Alabama Extension is one reason I was attracted to the position. Two land-grant institutions working in concert through Extension can provide citizens with a vast and diverse body of knowledge."

In particular, he notes that environmental stewardship, economic development and quality of life issues are areas where Extension can lead and make a difference in the lives of everyone in Alabama.

SIMPLY AN HONOR—Long-time Alabama Cooperative Extension System Director Gaines Smith pauses in front of new lettering that identifies a facility at the Alabama 4-H Center near Columbiana as the W. Gaines Smith Environmental Science Education Building. Smith, an Autauga County native, says he is overwhelmed by the honor the Alabama 4-H Club Foundation Inc. has given him, noting, "I could never have dreamed of this occasion when I started my 4-H experience at Hicks Memorial School in 1952." Smith has been with Extension for 45 years, holding leadership positions at the county, district, regional and state levels. In the ceremony renaming the educational building, Progressive Farmer editor and publisher and immediate past chairman of the foundation's board of directors Jack Odle said the $5.5-million facility would not exist if not for Smith's unshakeable belief in the needs of Alabama's youth. The building opened in 2007 as the first gold-certified Leadership in Energy and Environmental Design environmental education building in the eastern U.S.

Free Workshop Looks at Organic Farming's Future

A free organic farming workshop that will address challenges to the future growth of the organic produce industry in Alabama will be held Friday and Saturday, Oct. 28 and 29, at Tuskegee University's Kellogg Hotel and Conference Center.

The goal of the All-Alabama Organic Farming Workshop is for participants to identify marketing, policy, production and research challenges that organic growers face in Alabama and then work together on solutions that will help alleviate those constraints.

The general public is invited to attend, and organizers are hoping for a diverse audience that includes farmers, scientists, chefs, retailers, restaurant owners, farmers market managers, policymakers and representatives of key institutions such as local school boards, hospitals and nursing homes.

GROWING ORGANIC—Identifying the challenges confronting Alabama's organic farming industry and developing ways to meet those hurdles is the goal of a fall organic farming workshop at Tuskegee University.

Funded by USDA's Organic Farming Program, the workshop is being sponsored by Tuskegee, Auburn and Alabama A&M universities along with the Alabama Sustainable Agriculture Network and the Federation of Southern Cooperatives.

Preregistration is not required. Find more details about the conference on ASAN's website at www.asanonline.org or by contacting Jan Garrett at 334-844-2124 or garrecj@auburn.edu.

New Tree Publication Promotes Fall, Winter Planting

The 2011 spring tornadoes left a path of devastation across Alabama, including the destruction of many large, mature shade trees, but a new Alabama Cooperative Extension System publication is now available to help homeowners make good decisions about replanting trees.

The publication, "Tree Selection, Planting and Care," was originally the idea of Cullman County Extension coordinator Tony Glover, who, with funding from the Alabama Nursery and Landscape Association, printed the colorful brochures and saw to it that they were inserted into the September power bills of some 8,500 Cullman County households.

Meanwhile, while working with Glover to create the flyer for Cullman County, Extension's News and Public Affairs staff decided to provide the same publication to residents throughout the state, and just in time for this year's tree-planting season.

"Fall and winter are the best times to plant trees because lower temperatures create less stress on the trees and because the trees don't need as much water," Glover says. "We're glad to get the information out now so people will have time to do some research and decide which kinds of trees they want to plant."

In Alabama, trees can be planted all fall and winter. "As long as the ground isn't frozen, any time between October and February should be fine," he says.

Though trees are attractive in any landscape, they're about more than beauty, Glover says.

"Trees give us a sense of history and well-being, make our communities more livable, provide habitat for wildlife and shade our homes, helping us save money on utility bills," Glover says.

The publication is on Extension's website at www.aces.edu. Search for ANR-1405, and select Printable Copy (pdf). Printed copies are also available through many county Extension offices or can be ordered through the online ACES Store at store.aces.edu.

CROCHET AWAY—Talladega County 4-H volunteer Josie Morris, standing, watches as 4-H'ers, from left, Sera Rohrmayer, Azzi Rohrmayer and Christy Rohrmayer crochet hair ornaments. The crochet lesson was a skills-training activity that was part of an entrepreneurship workshop Morris conducted to teach the students the steps involved in generating extra money in today's slow economy by starting small, home-based businesses. Morris shared information on business plans, best management practices, recordkeeping and marketing. The hair accessories were examples of the kinds of products 4-H members could make and offer through a small business.

Calendar of Events

October • 2011

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November • 2011

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December • 2011

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Oct. 28-29

All-Alabama Organic Farming Workshop

Kellogg Hotel and Conference Center
Tuskegee University

This free event will address challenges to the future growth of the organic farming industry in Alabama.

Contact: www.asanonline.org or Jan Garrett at 334-844-2124 or garrecj@auburn.edu

Nov. 3

Gebisa Ejita

E.T. York Distinguished Lecturer
7 p.m.
The Hotel at Auburn University and Dixon Conference Center Ballroom - *Auburn*

Gebisa Ejita, winner of the 2009 World Food Prize and Distinguished Professor of plant breeding & genetics and international agriculture at Purdue University, will present the fall 2011 York Distinguished Lecturer Series.

Contact: Deborah Solie at 334-844-8900 or das0002@auburn.edu

Nov. 19

Ag Roundup and Taste of Alabama Agriculture

9 a.m. (or three hours before kickoff)
Ag Heritage Park - *Auburn*

This annual event is a giant tailgate party held prior to the AU/Samford homecoming football game.

Contact: Elaine Rollo at rollome@auburn.edu or 334-844-3204

Nov. 21-25

AU's Thanksgiving Holiday

Dec. 12

College of Ag Graduation Breakfast

Ham Wilson Arena
Auburn University - *Auburn*

Fall 2011 College of Agriculture graduates and their families are honored at this breakfast 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

Dec. 19-Jan. 2, 2012

AU's Holiday Break

Jan. 9, 2012

AU Classes begin

Feb. 23, 2012

Hall of Honor Banquet

6:15 p.m.
The Hotel at Auburn University and Dixon Conference Center - *Auburn*

This event, held in conjunction with the Auburn University Agricultural Alumni Association's annual meeting, will honor five Alabamians who have made significant contributions to agriculture. Tickets to the banquet are $50 per person. Corporate sponsorship opportunities also are available.

Contact: Elaine Rollo at 334-844-3204 or rollome@auburn.edu

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" button or use your mobile device to scan the code below.

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Recipe File

Truly Different

These Cupcakes Stand Out from the Rest

The name says it all in this recipe, which is but one of 650-plus outstanding ones included in the Auburn University Campus Club's new fundraising cookbook, "Course Offerings." Campus Club member Rosemary McMahon, who submitted the Truly Different Cupcakes recipe to the cookbook, says it's one she has shared with just about everybody who has ever tasted the rich, moist chocolate cupcakes. And here's a tip: The cupcakes travel well, which makes them a perfect choice for tailgate parties—if your family doesn't get to them first.

Proceeds from sales of the $25 cookbook will go toward the Campus Club First Ladies Endowed Scholarship Fund for Auburn horticulture students. For more about the cookbook, see the article on page 8.

Truly Different Cupcakes

4 (1-ounce) squares semisweet chocolate
2 sticks margarine
1½ cups chopped pecans
¼ teaspoon butter flavoring
1¾ cups sugar
4 large eggs
1 cup unsifted plain flour
1 teaspoon vanilla

Melt chocolate and margarine together in a saucepan over low heat. Add pecans and stir until nuts are coated. Stir in butter flavoring. In a mixing bowl, blend together the sugar, eggs, flour and vanilla. Do not beat. Stir in chocolate mixture, but do not beat. Spoon batter into regular paper-lined muffin tins, and bake at 325 degrees for 30 to 35 minutes, or spoon one tablespoon batter into miniature paper-lined muffin tins, and bake at 325 degrees for 15 minutes.

Makes 24 regular or 48 miniature cupcakes.