



ONE TOUGH CUSTOMER—Richard Guthrie was a formidable force at fullback for the Union Springs High School Tigers, but he was even more indomitable as an end for the Auburn Tigers. Guthrie entered Auburn University in 1958 on a football scholarship and, especially in the 1960 and '61 seasons, saw major playing time on both sides of the ball, thanks to a limited-substitution rule that governed college football at the time and that basically meant a team's offensive unit was also its defensive unit. Guthrie's athleticism extended well beyond the gridiron, too: He lettered in football, baseball, basketball and track in high school and, at Auburn, found the time and energy to letter in track as well as in football.

The Home Stretch

Guthrie to Exit Ag Hill, and This Time He Means It
by JAMIE CREAMER

football-playing days ended late in his senior season, when he tore up a knee during practice.)

Though football took front and center, Guthrie realized he also was at Auburn to get a degree. That he would study agriculture was never a question, but what his major course of study would be was. He'd come from a dairying background, and his older brother, Larry, had chosen to go the dairy-science route, but "my mind wasn't set on dairy," he says. He wound up going with agricultural science as a major, but near the end of his freshman year, a professor in a crop production course he was taking suggested he change to agronomy and soils, and the young Guthrie, who was still in major football mode, basically shrugged and said OK. It was that easy.

Guthrie found soil science fascinating. He was awarded his bachelor's degree at the end of spring quarter 1962 and was ready to take on the world—and a wife. She was Kay Couvrette, a business education major from Selma whom he'd met and fallen for at Auburn.

The couple married in June and headed straight to Dothan, where Guthrie would go to work as a soil scientist with the U.S. Department of Agriculture's Soil Conservation Service, now called the National Resources Conservation Service.

Entering the real world, Guthrie recalls, was a rude awakening.

"I got there and discovered right off the bat that I didn't know anything," he says. "I didn't

(continued on page 2)

THE FIRST TIME RICHARD Guthrie retired from Auburn University, back in 2003, his heart just wasn't in it.

The timing was all wrong. As associate dean of the College of Agriculture's international programs, his mission was to globalize agriculture at Auburn, to broaden students' and faculty members' understanding of the world around them. In his 15 years as associate dean, he had developed international agriculture into a vital component of the college.

He was still going strong, too, and retirement wasn't anywhere on his radar screen—until Auburn, in a university-wide downsizing move, offered him a buyout package he literally could not afford to refuse.

He left, he recalls "with very mixed emotions."

But later this spring, when Richard Guthrie retires from Auburn University for the second time, it will be a whole other story.

"I am ready, ready, ready; no doubts whatsoever," says Guthrie, who will step down as College of Agriculture dean and Alabama Agricultural Experiment Station director as soon as a new dean/director is in place. "It's been fun, and I love Auburn and the college and everybody here, but it's time to go."

And this time, wild horses won't be able to drag him out of retirement.

Those wild horses weren't necessary in 2005, when, at the request of university officials and with the strong support of College of Ag faculty, alumni and friends, Guthrie came out of retirement and returned to Ag Hill to lead the college and Experiment Station through what had been a turbulent administrative transition.

From her vantage point as executive support specialist for the college's three previous deans, Kelley Terry realized soon after Guthrie came in as dean and director that he had been a wise choice.

"Many people in the college and around the state knew and respected him and enjoyed working with him," Terry says. "Having him in the dean's office had a calming effect. He was an ideal person to help the college transition."

Guthrie, who after his first retirement had remained involved with the college's international program as well as with Auburn's capital fundraising campaign, says that when the dean/director offer came, he didn't hesitate in accepting.

"To have the opportunity to help when the College of Ag needed me was a tremendous honor," says Guthrie. "Serving in this position has topped off my career in a way I never could have dreamed of."

Richard Lafayette Guthrie was born and raised in Bullock County, the middle of John and Nell Guthrie's three children, and grew up milking cows, herding beef cattle and feeding chickens on his parents' mainly dairy farm near Union Springs. He was an avid 4-H'er, a stellar school student and a phenomenal athlete, and in 1958, the latter earned him a football scholarship to Auburn.

Then, as now, that was a very big deal, especially given that the Auburn Tigers had won the national championship the year before. The strapping young Guthrie arrived at the loveliest village on the plains that fall ready to give Auburn Head Coach Ralph "Shug" Jordan 115 percent.

"I was here to play football," says Guthrie, and he did, logging plenty of time on the field as an offensive and defensive end. (Side note: His

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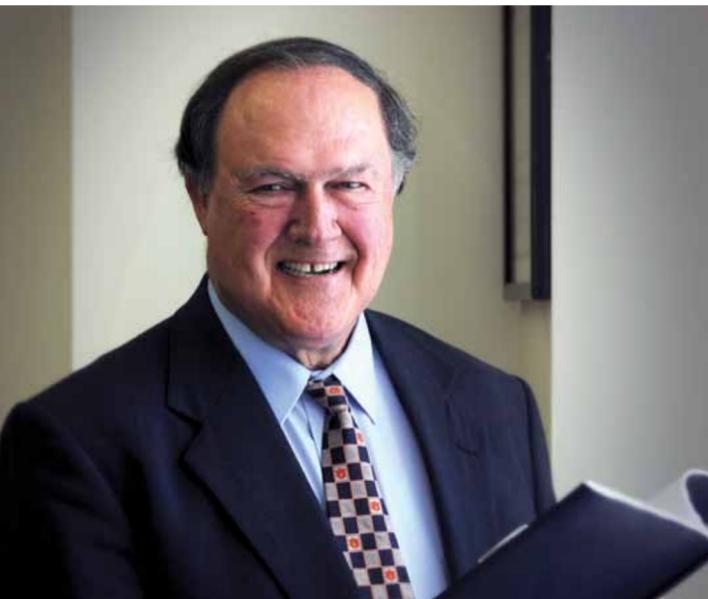
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View from AGhill



The annual AU Agricultural Alumni Association's Hall of Honor banquet is one of the most anticipated events of the year in Auburn. This year featured the induction of three esteemed agricultural leaders into the Hall of Honor: Raymond Jones, from the agricultural production sector; Billy Powell, from the agricultural business/organization sector; and Bill Hardy, from the government/education sector. (See photo, page 3).

All three gentlemen have made outstanding contributions to Alabama agriculture for many years and truly epitomize the description "leaders in the field." But one of them, Raymond Jones, who is probably best known in ag circles for his skills as a cattleman, has talents that extend beyond the pasture fence, such as serving as chief executive officer of G.W. Jones and Sons Engineering Company in Huntsville and being an engaging author.

Ray has shared with me two books that he authored, one on his love affair with turkey hunting and the most recent one—*A Farm in Jones Valley*—which tells the story of his family farm that still exists in the midst of a city.

Jones Valley farm is actually "The Farm" that his father and uncle purchased in 1939 and developed in the area now surrounded by the city of Huntsville. The book is an autobiography, but Ray also writes in detail about his father, uncle, mother, daughters, son, grandchildren and the numerous families and individuals who lived and worked on the Jones' farm and in the engineering firm.

Ray's love of agriculture inspired him to maintain the farm in a location where all the neighboring land has been turned into subdivisions. Not only does the farm continue to operate as a cattle farm, but Ray, his wife Libby, both daughters and his son live on the farm as well.

As we move through changes in agriculture in Alabama, it is quite refreshing to become a friend of Ray Jones and his family, who truly believe in and love agriculture.

Richard Guthrie
DEAN, COLLEGE OF AGRICULTURE
DIRECTOR, ALABAMA AGRICULTURAL EXPERIMENT STATION

(THE HOME STRETCH, from page 1)

have any idea what I was doing or what I was supposed to be doing."

That became apparent to his supervisors early on, when they sent him out to do routine soil surveys. Now, soil surveying was a required course for soil science majors at Auburn, but it was only offered every other year, and though Guthrie had registered for it his senior year, it was canceled at the last minute because not enough students had signed up. Guthrie had been allowed to substitute with another course that, unfortunately, had nothing to do with soil surveying.

"They (his SCS supervisors) said 'survey,' and the only surveying I knew was land surveying, where you go out with your equipment and your tape measure and your level and take all your measurements and angles," Guthrie says. "I learned pretty quickly that soil surveying meant taking field samples and classifying soils."

That embarrassing incident gave Guthrie pause.

"I realized right off that there was so much more to learn, and that the more I learned, the better off I'd be," he says. So six months after he and his bride had left Auburn, they returned to the Loveliest Village and he entered graduate school. He completed his master's in soil science in 1965 and three years later earned his doctorate from Cornell University.

Even as he pursued his advanced degrees, Guthrie had kept working for the SCS, and over the next 15 years, he remained with and moved up in the agency. Most every promotion entailed packing up his wife and their three young daughters—Ann, Kathy and Luci—and mov-

ing, from Alabama to Nebraska to Missouri to Texas to Washington, D.C.

"Kay and I moved 19 times in our first 20 years of marriage," Guthrie admits.

While with the federal agency, Guthrie maintained a strong research program, and gradually, the young fellow who in 1959 had nonchalantly switched his major to soil science and who in 1962 had experienced a rocky entrance into the real world built a reputation as an outstanding scientist and an authority on soil mapping and soil classification.

Through it all, however, the Guthries dreamed of one day returning to Auburn, and the dream came true in 1983 when Guthrie landed a job as College of Agriculture professor and Department of Agronomy and Soils head.

Two years later, he was named acting dean of the college and served in that post until 1988, when he was appointed associate dean of international programs. His dedication to that latter role has been invaluable in bringing the world to the College of Agriculture at Auburn and taking the College of Agriculture to the world.

It was over this past Thanksgiving break that Guthrie decided it was time to retire—and this time, for good—though he has agreed to stay until a new dean/director is in place.

Guthrie says he leaves his post feeling good about the state of the college and the AAES. And when the sequel to *Inside Ag Hill: The People and Events that Shaped Auburn's Agricultural History from 1872 to 1999* is written, he says, "I just hope I'm remembered as a good dean and a good director." ☞



WHERE THERE'S A WILL—Kay and Richard Guthrie dote on grandson William Richard Davis. Guthrie's a self-proclaimed "genealogy freak," and he does play golf, but he says, for him, retirement's going to revolve around Will.

New Guthrie Award to Honor Faculty Who Think Globally

In recognition of the pivotal role retiring Auburn University College of Agriculture Dean Richard Guthrie has played in developing, leading and supporting the college's international programs, a number of his friends and colleagues have established the Richard L. Guthrie Award for Achievement in International Agriculture.

The Guthrie Award will be presented annually to a College of Ag faculty member who, through his or her teaching, research and outreach activities, has advanced or is advancing international programs in the college. The first recipient of the award is Guthrie himself; the presentation was made Wednesday, April 28, at the Alabama Farmers Pavilion during the 2010 Ag Classic dinner. (See Ag Classic story on page 3.)

Over the course of his quarter century as a faculty member and administrator in Auburn's College of Ag, Guthrie has traveled to 26 countries as a global ambassador for Auburn agriculture. He served as associate dean of international programs in the College of Agriculture for 15 of his 25 years at Auburn and for two decades was liaison between the college and China's Hubei Academy of Agricultural Sciences in an academic interchange agreement.

Guthrie's commitment to strong international agriculture programs has presented, and will continue to present, students and faculty in the College of Ag a world of opportunities to experience other cultures, broaden their worldviews, gain global perspectives and enrich their lives.

For information on contributing to the Guthrie Award, contact the College of Agriculture's development office at 334-844-1475 or hardykc@auburn.edu.



Ag Classic Offered Fun, Fellowship

The number 13 may be a lucky number this year for golfers, sharpshooters and anglers alike. That's because this is the year of the 13th annual Ag Classic, which was held April 28-29 in the Auburn area.

Ag Classic has become one of the most popular events 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, clay shooting and golf tournament events, Ag Classic included a social hour, dinner and auction on April 28 at the Alabama Farmers Pavilion at Ag Heritage Park.

With the exception of the fishing tournament, proceeds from the 2010 Ag Classic will support the newly established Richard L. Guthrie Award for Achievement in International Agriculture. (See New Guthrie Award, page 2.)

For more information about Ag Classic or the award, contact Katie Hardy at 334-844-1475 or hardykc@auburn.edu or go to www.ag.auburn.edu/adm/development/agclassic/ and look at the brochure pictured above.



AG LEADERS HONORED—Three individuals who have had a significant impact on agriculture and agribusiness in Alabama were recently inducted into the Auburn University Agricultural Alumni Association's Hall of Honor. Pictured at the award ceremony, from left, are: College of Ag Dean Richard Guthrie; inductee Ray Jones of Huntsville, who was chosen for his work in the production agriculture sector; inductee Bill Hardy, who was chosen for his work in the education/government sector; inductee Billy Powell, who was honored for his work in the agribusiness sector; and Ag Alumni Association President Richard Holladay. Jones is a cattleman and businessman, Hardy is professor in Auburn University's Department of Agricultural Economics and Rural Sociology and Powell is executive director of the Alabama Cattlemen's Association. Also honored at the event were Pioneer Awards winners Jamey Clary of Akron and Ross Debter of Horton, both of whom were recognized posthumously for their lifetime contributions to Alabama agriculture and agribusiness.

Where Are They Now? College of Ag Alum News

Kyle Faulk, a 2002 Department of Horticulture graduate, was featured on Alabama Public Television's On the Job series recently. Faulk and his brother, Grant, an '02 graduate in building science, own Lakewood Landscape Group in Dothan and were chosen for a "day in the life" episode that focused on their business. The show aired in February but can be seen online at <http://onthejobtv.org/site/2010/02/show-236/>.

Kyle Faulk sent an e-mail to horticulture department head Dave Williams telling him about the interview and said, "We are very fortunate to have this kind of exposure," adding that he and Grant gave Auburn some air time during the show's interview.



Kyle Faulk and Grant Faulk

"It is very evident to me, looking back on my time in the horticulture program, that each one of you really care about your students and about developing them to contribute to our industry in a positive way," he said in the e-mail. Though he admits he may not have fully applied himself to school while at Auburn, he nonetheless graduated with a deep understanding of horticulture. "That is a testament to each one of you and the material you are teaching," he added. "Keep up the good work! You are having a huge impact on the Southeast, one graduating class at a time."



Ellyn Grisham Hix

Ellyn Grisham Hix, who earned her bachelor's degree in animal sciences in 1982 and her master's in ag economics in 1985, may have taken a career path that led her away from agriculture, but she will always be indebted to the college that put her on the proper path.

Hix is director of user services in the Auburn University Office of Information Technology, which oversees the university's information technology needs and provides a wide range of computer and technology services for faculty, staff and students.

At a recent Faculty Staff Campaign kickoff breakfast (she is serving as campaign co-chair), she recalled the profound influence that College of Ag faculty—Ralph Harris, Rob Martin and Bill Hardy most especially—had on her career choices.

Though she came to school in agriculture with the initial goal of becoming a veterinarian, Ellyn discovered the beauty of pigs and was seriously considering a career in the swine industry. An internship in Kansas, suggested by Harris, showed Ellyn that, while she loved (and still loves) pigs, spending all day, every day with them might not be the best way to go.

Instead she went on to graduate school in ag economics and began working with computers. Upon graduation she went to work for the Alabama Cooperative Extension System providing computer support for county offices statewide. Then, in 1986, she was stolen away by what was then the Division of University Computing (now called OIT) providing computer support to all of campus where she since worked her way up the ranks to her current position.

To learn more about these and other alumni go to www.ag.auburn.edu/alumni/now.



FROM THE ASHES—The front façade of Comer (left) appeared to have suffered less damage than the rear (above). After the October 1920 fire, two plans were proposed for Comer Hall's restoration. One called for wings to be added on the east and west ends of the building to house the Alabama Cooperative Extension Service and the Alabama Agricultural Experiment Station. This plan was scrapped in favor of restoring Comer Hall essentially as it was before the fire, using the surviving walls, which were 30 inches thick at the base, to reduce costs.

Comer Hall Trivia

Comer 100 (1910-2010)

Cool Facts Celebrating Comer Hall by LEIGH HINTON

THE CORNERSTONE OF AGRICULTURE AT AUBURN UNIVERSITY, COMER HALL, is much more than just a building on the south side of the Auburn campus. It is a unique piece of Auburn's history and a colorful reminder of agriculture's past 100 years on the Plains. How much do you know about Comer Hall?

Radio Station and Bomb Shelter

During its 100 years of service, Comer Hall has housed most ag departments, labs of several kinds, various plant and animal collections, the Agricultural Library, classrooms, offices of many College of Agriculture faculty and staff and various agricultural agencies. Radio station WAPI, "The Voice of Alabama," was located for a time on the third floor of Comer Hall and broadcast news, weather and educational materials related to agriculture and home economics. During the Cuban Missile Crisis in the 1960s part of the basement was equipped as a fallout shelter, complete with food, water and portable sanitation facilities.

Remember the Moose

For almost 40 years, two mounted trophies—an elk head and a moose head—hung in the main floor entrance lobby of Comer Hall. They were presented to the college in 1923 by then-Alabama Gov. Braxton Braggs Comer, for whom Comer Hall is named—when he spoke at the building's dedication. The moose was often seen with a student-placed cigarette or cigar jutting from its

mouth. Today, the moose hangs in the lobby of Funchess Hall along with newer trophy friends: a grizzly bear and a swordfish. The elk has gone missing. If you know the elk's whereabouts, please e-mail agcomm@auburn.edu.

Peanut Gallery

In 1951, temporary balconies were added in the high-ceilinged east and west hallways of Comer Hall's main floor to provide offices for growing numbers of faculty. This balcony space was affectionately called the "Peanut Gallery" by the agronomy and soils faculty housed there. Soils faculty were located in the west end balconies while crops faculty occupied balconies in the east end, near Funchess Hall. During hot summers, the hallways and balconies were cooled by large exhaust fans, which provided limited relief from heat but often scattered loose papers.

Up in Flames

Nobody knows for sure what started the fire that swept through Comer Hall early one Sunday morning in October 1920. An electrical problem?

Lightning? But when the alarm went out, volunteers from town attempted to douse the flames with a hose connected to the town's water supply. It turned out that the hose wasn't long enough and the rest, as they say, is history. Not only was the main ag building destroyed but also lost were valuable records, documents, specimens and equipment. Students were able to save some books, which they carefully carried down the stairs, and typewriters, which they threw out the windows.

Funny Dog Tricks

Meetings of the Agriculture Club—the first of its kind in Alabama—were held in a large Comer Hall classroom with a stage. While the purpose of the club, founded in 1907, was to "create interest in agricultural science and give members training in public speaking," Ag Club meetings were not all serious business. In the 1930s and 1940s, meetings featured string bands and skits that mimicked professors. Among other acts was dairy professor A.D. Burke's dog that performed tricks to entertain the audience.

Greetings from 1985

On the front lawn of Comer Hall is a large stone that honors the centennial (1883 to 1983) of the Alabama Agricultural Experiment Station, one of the many agricultural agencies that has been, and continues to be, housed in Comer Hall. Buried under the stone, which was dubbed Buchanan's Boulder for then-AAES Director Gale Buchanan, is a time capsule scheduled to be opened in September 2085. **CS**

Sources for information in this article include The Auburn University Digital Library (<http://diglib.auburn.edu/>) and *Inside Ag Hill: The People and Events That Shaped Auburn's Agricultural History from 1872 through 1999*. To order a copy of *Inside Ag Hill*, visit www.ag.auburn.edu/onlinestore.

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Animal Sciences 334-844-4160 | www.ag.auburn.edu/ansc
Biosystems Engineering 334-844-4180 | www.eng.auburn.edu/programs/bsen
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Poultry Science 334-844-4133 | www.ag.auburn.edu/poul

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College of Sciences and Mathematics 334-844-5737 | www.auburn.edu/cosam
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Teachable Moments

Science Exposure

Research Alters Undergraduate Lives

by KATIE JACKSON

When Brandon Smith came to Auburn University from his hometown of Slocomb, he planned to return home when he graduated and become a high-school agricultural education teacher. An undergraduate research project, however, drastically changed those plans, perhaps a bit to his mother's dismay.

Smith, a junior double-majoring in agronomy and soils and animal sciences, is one of several College of Ag undergraduates assisting faculty members with research projects, an opportunity that provides the students scientific experience long before they go to—or maybe even consider—graduate school. It is an experience that, for many, is life-altering.

Take Landon Marks, Amanda Hazi and Katherine Millhouse, for example. These three animal sciences/pre-veterinary medicine students are helping animal sciences associate professor Betsy Wagner conduct a nutritional study on horses, an opportunity that initially offered part-time student employment, but ended up affecting their career paths.

Hazi, a junior from Palm Beach Garden, Fla., was "dead-set on attending vet school and opening my own equine private practice," she says. Then she became involved in research.

"Now, I realize that I would much rather be in the lab every day, all day, working toward a goal that I have set and trying to answer new questions." Hazi now plans to earn her DVM degree, then go on to graduate school and work on immune system diseases in horses.

Marks, a senior from Cullman who also had plans to be a veterinarian, says the research opened his eyes to new, broader opportunities.

"Teaching has always been a passion of mine, but animals have always been a greater passion," he says, adding he never dreamed anything could sway him from becoming a veterinarian. "Getting involved in the research changed my mind," he says. The research experience showed Marks a way to link the two together and he now plans to get a Ph.D. in animal breeding and genetics so he can both teach and conduct research.

Millhouse, a fifth-year senior from Birmingham, earned a degree in animal sciences/pre-vet in 2009 and will graduate with a second degree in zoology this spring. She first worked with Wagner last summer on a horse weight estimation project, then she joined the nutrition study.

According to Millhouse, by seeing the research side of veterinary medicine, "I am definitely open to exploring those options if I become a veterinarian." She has also gained personally from the experience. "These research projects really increased my drive and motivation to explore all options of animal care," she says. "The nutrition project made me more disciplined when it came to waking up at 5:30 in the morning to feed and clean the horses' stalls, as well as staying up all night to check the horses' catheters every two hours."

For Matthew Bailey, a senior in poultry science from Opelika, working in poultry science assistant professor Ken Macklin's lab helped him find the right career path. "I always found biological sciences, such as microbiology, to be interesting but I never really considered it as a career option. In fact, when I was younger, I was more interested in engineering," he says. Bailey now plans to go to graduate school in microbiology or parasitology and perhaps earn his Ph.D.



AN EDUCATION IN SCIENCE—Conducting research is not usually an option for undergraduates, but several College of Ag students are experiencing research first-hand and finding that the experience has changed their lives and certainly their career choices. Among the students who are doing research with College of Ag professors are, clockwise from left, Brandon Smith, Matthew Bailey (pictured with his mentoring professor Ken Macklin, an assistant professor of poultry science) and Jessica Chapman.

Yet another animal sciences/pre-vet student—junior Jessica Chapman from Lake Zurich, Ill.—joined a team of students working on a multidisciplinary swine lactation study when she was a freshman. Chapman is now working with Terry Brandebourg, assistant professor in animal sciences, on a project exploring how fat cells and the immune system affect growth in food animals.

"Before I started working with research, I was already a very driven and organized person, but since getting involved with these projects I have become even more motivated to do well," she says. "Research has shown me that I really can make a difference, and that is a very good feeling! It makes working hard exciting."

And then there's Smith, whose life may have been altered the most by his research experience. He is working on a ryegrass grazing and quality study with agronomy and soils professors Beth Guertel and Edzard van Santen and animal sciences professor Russ Muntfering.

"Doing this research has changed my life and my entire career focus," he says. Instead of being an ag ed teacher, Smith now plans to get his Ph.D. so he can teach and do extension and applied research work for the rest of his life. "I may not be back in Slocomb ever, and if I am, it may be after I retire"—a decision that has had an impact on his close-knit family.

"They've come around to the idea and they are ecstatic that I have found the niche I was looking for," he says of their reaction, though he adds, "I don't say a whole lot about it around Mama."

All these students heartily recommend undergraduate research experiences to their fellow students, and finding such an opportunity is as easy as contacting the Student Services office at 334-844-4768 or visiting the staff in 103 Comer Hall.

Discover more about each of these students' accomplishments and dreams by visiting www.ag.auburn.edu/student/stories. **CS**



Student Accomplishments

Seven Department of Horticulture students brought a suitcase full of awards back to Auburn earlier this month after competing in collegiate-level horticulture judging and plant-identification contests held during the Southern Region of the American Society of Horticultural Sciences' 2010 annual meeting in Orlando. Representing Auburn were **Morgan Burgess, Ben Cleveland, Amy Holliday, Judson LeCompte, Martin Maddox, Matt Phillips and Kerry Stober**. The Auburn team placed first in greenhouse floral and foliage plants, second in fruit and nut crops and third overall. And in individual competition, Holliday claimed first place in both woody ornamentals and fruit and nut crops, second place in the greenhouse floral and foliage plants category and third place overall; LeCompte took second-place honors in greenhouse floral and foliage plants; Stober placed third in woody ornamentals; and Cleveland third in the greenhouse floral and foliage plants category. The competition, called the J. Benton Storey Horticulture Contest, began in 1987, but this was Auburn's first year to enter. Teams from eight other colleges and universities around the Southeast also participated.

Agronomy and soils master's students **Kimberly Freeland Starr and Mark Doroh** have been named winners of the 2010 Dr. A.L. Smith Scholarship Award, an honor given annually to two outstanding agronomy and soils graduate students based on their grades, teaching, research and number of research publications and presentations. Starr is working on her doctorate under the guidance of agronomy and soils associate professor **Yucheng Feng**. Doroh is pursuing his master's under the direction of agronomy and soils assistant professor **Scott McElroy**.



RIDING FOR A CAUSE—Fifteen local equestrians spent a chilly but fun February Saturday in the saddle to raise more than \$700 for St. Jude Children's Research Hospital. The event, Saddle Up for St. Jude, was a trail ride at Tuskegee National Forest sponsored by the Auburn University Horseman's Club, many members of which are College of Ag students. More than 21 donors helped make this year's successful ride possible, including several local businesses, and organizers are already planning next year's ride.

College of Ag Adds 10 New Endowed Professorships

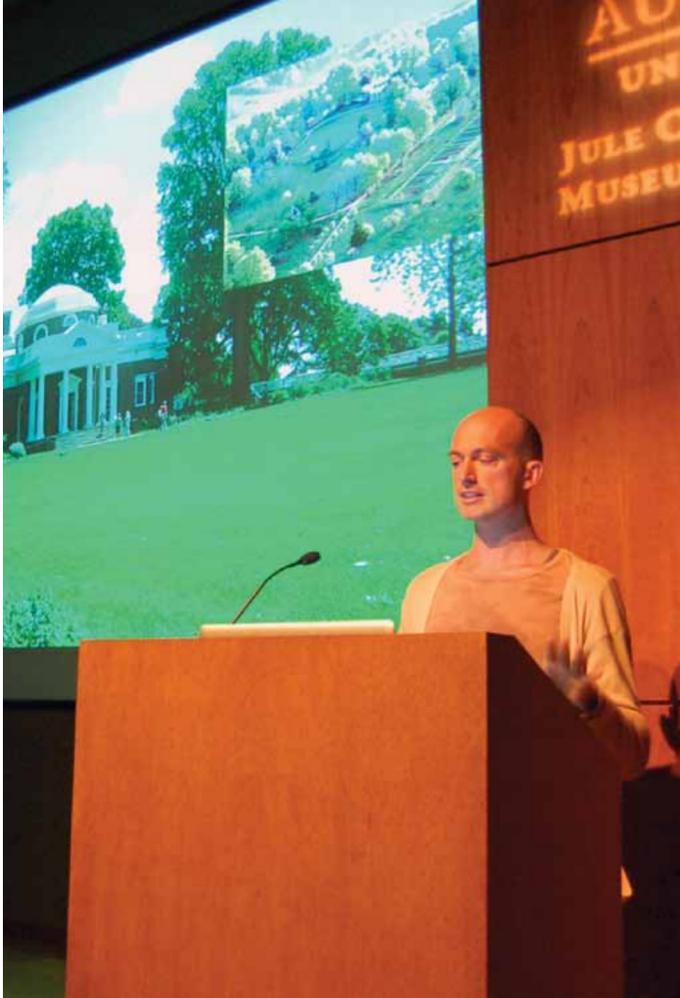
by JAMIE CREAMER

In the fall of 2008, Auburn University President Jay Gogue unveiled an ambitious, year-long initiative in which 81 new endowed professorships would be established campus-wide as tools to attract exceptional teachers and researchers to Auburn and to reward and retain the outstanding faculty already here. Seven of those professorships were to be in the College of Agriculture.

By the time the campaign wrapped up Sept. 30, 2009, College of Ag alumni and supporters had endowed, not seven, but 10 new professorships in the college, including seven in the Department of Horticulture, two in the Department of Entomology and Plant Pathology and one college-wide. Mark Wilton and Wes Cumbie, the college's development officers, credit horticulture and entomology and plant pathology faculty members with helping secure the professorships in their departments.

Endowed professorships are the most esteemed faculty honors afforded by Auburn and are awarded to faculty who are outstanding scholars, educators and researchers in their fields of study and who are passionate about stimulating young minds. Faculty who are named to professorships receive prestige, recognition and—the real morale-boosters—salary enhancements.

Establishing a professorship at Auburn normally requires a gift of \$300,000,



SHARING IDEAS—Artist, designer, gardener and activist Fritz Haeg was on campus in March to deliver the spring York Distinguished Lecturer presentation. Haeg, who authored the book *Edible Estates: Attack on the Front Lawn*, advocates replacing traditional front lawns and yards with edible landscapes and finding ways to alter landscape aesthetics and land use choices so that homeowners can better connect to their environment and their neighbors. An overflow crowd was on hand for his lecture—entitled “Welcoming the Wild”—at Jule Collins Smith Museum of Fine Art in Auburn on March 23. While on campus, Haeg also met with students and faculty from the colleges of Agriculture and Liberal Arts as well as with campus garden planners.

In Memoriam

Robert Durbin, 55, of Tallassee, who served as director of the E.V. Smith Research Center Field Crops Research Unit, died March 5.

Costas Kouskolekas, a retired professor of entomology, died at his home Feb. 11.

but for those that were created during Gogue's initiative, the university agreed to add \$7,500 annually in perpetuity to their earnings. Subsequently, donors were allowed to set up these professorships with gifts of \$150,000.

The 10 new endowed professorships in the College of Agriculture include: the Joseph Kloepper Endowed Professorship in the Department of Entomology and Plant Pathology, the Endowed Professorship in the Department of Entomology and Plant Pathology, the Ronald L. Shumack Endowed Professorship in the Department of Horticulture, the William A. Jr. and Cecelia Dozier Endowed Professorship in the Department of Horticulture, the Dwight and Ruth Ann Nunn Bond Professorship in the Department of Horticulture, the Thomas H. Dodd Jr. Professorship in the Department of Horticulture, the Jimmy and Chris Pursell Endowed Professorship in the Department of Horticulture, the Barbara and Charles Bohmann Endowed Professorship in the Department of Horticulture, the Harry G. Ponder Endowed Professorship in the Department of Horticulture, and the Mike and Leann Rowe Endowed Professorship in the College of Agriculture.

More information about these professorships is available at www.ag.auburn.edu/adm/comm/news/2010.

Teaching and Demonstration Gardens Designated at Auburn University

by KATIE JACKSON

Gardens are about to grow at Auburn University that will educate and benefit Auburn students as well as the public.

The new gardens—to be called the Auburn University Teaching and Demonstration Gardens—will be located at a site known as “the old agronomy research farm” on the campus of Auburn University. This area, located between Woodfield and Lem Morrison drives and adjacent to Donahue Drive, has since 1975 been used for a hodge-podge of research and teaching projects, parking for football games and a convenient grassy area for sunbathing in spring. (Students affectionately call it “the beach.”)

Richard Guthrie, dean of the College of Agriculture and director of the Alabama Agricultural Experiment Station, has formed a committee to oversee development of this area into the new Auburn University Teaching and Demonstration Gardens.

The site encompasses the Old Rotation Experiment (circa 1896, the world's oldest continuous cotton experiment and an official Alabama Historic Site); the Crops Garden, a collection of familiar and exotic crops from around the world; the All-American Teaching Garden, which includes flowers and ornamentals; the Organic Vegetable Garden; a community garden plot that has for several years provided fresh produce to the local food bank; and a collection of trees and ornamentals that are planted on the site. The adjacent Davis Arboretum, managed by the College of Sciences and Mathematics, will complement the new gardens.

Auburn University's long-range campus plan identified this site as green space to be used as a “plant science” area only. Plans for the Teaching and Demonstration Garden clearly fulfill that goal. The mission will be similar to the mission of the University of Tennessee Gardens: “. . . to foster appreciation, education, and stewardship of plants through garden displays, collections, educational programs, and research trials.”

Jane Farr, director of the Plant Science Research Center located across Woodfield Drive from the garden area, will supervise the new garden site. According to Farr, the first goal is to tidy up the site with new, coordinated fencing, signs to identify projects and improved trails for visitor access. Charles Mitchell, professor of agronomy and soils, is chairman of a projects review committee that is seeking new projects and will review proposals.

This new Teaching and Demonstration Garden will be self-supporting, so outside funding will be critical toward maintaining existing projects and initiating new ones. The result will be that, in the near future, students, alumni and visitors to Auburn's campus won't have far to walk to see examples of the latest developments in crop science, biofuels, gardening, fruits and vegetables and landscaping as well as the outstanding collection of native trees and shrubs in the Arboretum and a bit of agricultural history.

For more information about the gardens, contact Farr at hochaje@auburn.edu or 334-844-4403, Mitchell at mitchc1@auburn.edu or 334-844-5489 or Jim Bannon at bannojs@auburn.edu or 334-844-5611.

Faculty and Staff Accomplishments



Don Crow

Don Crow joined the College of Ag Office of Development in February, coming to Ag Hill from the central Auburn University development office. He will work primarily with corporate donors.

Dennis Shannon, professor of agronomy and soils who was on the ground when the Jan. 12 earthquake struck Haiti, was in Washington D.C., in February to give a presentation to the Board for International Food and Agriculture on Auburn's experience in Haiti. He is serving on the BIFAD Task Force on Haiti, and will be involved in helping develop recommendations on university involvement in Haiti.

STREAM OF CONSCIOUSNESS—Bill Deutsch, Eric Reutebuch and Wendy Seesock, all with the Alabama Water Watch program in the fisheries and allied aquacultures department, are helping educate the driving public about area creeks and streams. All three are working with the Saugahatchee Watershed Management Plan (SWaMP) group and officials throughout Lee and Tallapoosa counties to erect stream crossing signs that name creeks and tributaries and also designate the river into which they flow. Eventually 37 signs will be erected throughout the area to teach people how local water supplies connect to major rivers. Pictured at one of the stream sign dedications are, from left, Deutsch, Joey Hundley of the Lee County Highway Department, Seesock, Lee County Engineer Neal Hall and Reutebuch. Reutebuch and Seesock are co-coordinators of SWaMP.



Julie Morlock

Julie Morlock, who recently moved to Auburn from the Chicago area, began work as the new executive support specialist to the dean on March 1, replacing Kelley Terry, who is now a contract and grants specialist for the Alabama Ag Experiment Station and the Department of Biosystems Engineering.

Henry Fadamiro, associate professor of entomology and plant pathology, has been named a fellow of the Royal Entomological Society of London, the oldest and most esteemed entomological society in the world. He also was appointed co-editor of *Physiological Entomology*, a publication of the Royal Entomological Society, in January and is the first U.S. editor to be appointed in the 34-year history of that publication. Results of Fadamiro's study on a destructive citrus red mite that is affecting Satsuma mandarins were also published in March online in the journal *Biological Control*.

Alpha Zeta Spotlight

College of Ag Clubs, Organizations Offer Something for Everyone



Alpha Zeta, the oldest collegiate society for students and professionals in the agricultural and natural resource fields, has made a special name for itself in the Auburn area, thanks to its gardening plots. Those plots, which are rented each year to faculty, staff, students and local residents, have become a favorite place for vegetable and fruit gardeners to put down roots each year. But that's just one of the many things that Alpha Zeta does. The group is dedicated to scholarship, leadership, integrity and service. Alpha Zeta is open to men and women enrolled in agricultural curricula at Auburn University who are in the upper 20 percent of their major academically. To learn more about the group, contact Steve Schmidt, Alpha Zeta adviser, at schmisp@auburn.edu, or Amy Bohan at aeb0005@auburn.edu.

TILLING TIME—Alpha Zeta garden plots, such as this one tended last year by Auburn communications and journalism professor Ed Williams, are located off the Samford Avenue extension in Auburn and are perennial favorites of local residents. But AZ members do much more than offer land for tilling. They also take part in conferences and professional development seminars and host an annual national service project to help farmers and agriculture communities recovering from disasters or those simply in need. For example, in 2006, a group of Alpha Zeta members traveled to southeastern Louisiana to help with Hurricane Katrina recovery efforts.

To learn more about the group, contact Steve Schmidt, Alpha Zeta adviser, at schmisp@auburn.edu, or Amy Bohan at aeb0005@auburn.edu.

Innovation in Action

Burrowing Bugs

Researchers Cross Disciplines in Study of Insects' Impact on Soil Hydrology

by JAMIE CREAMER

The National Science Foundation has awarded an eclectic trio of Auburn University scientists \$300,000 to determine how tunnel-digging insects affect the physical structure of soil and, subsequently, the way water moves through it.

And although the top objective of the three-year study is to expand scientists' basic understanding of soil hydrological processes, it also could yield new data to help sod farmers, sports-field managers, golf course superintendents and homeowners across the South get the upper hand on a major nemesis: the turf-destroying mole cricket.

Teaming up on the project are Auburn soil physicist Navin Twarakavi from the Department of Agronomy and Soils, environmental engineer Prabhakar Clement from the Department of Civil Engineering and entomologist David Held from the Department of Entomology and Plant Pathology.

Competition for NSF grants is intense, and Twarakavi, who is leading the Auburn project, says the cross-disciplinary approach of the study undoubtedly scored the team's proposal brownie points with the agency.

"The NSF looks very favorably on research proposals that bring together scientists from different disciplines and fields of study," Twarakavi says, "and they did note on ours that it was the first proposal they had received that had an entomologist collaborating on a soil hydrology study."

At the heart of the multifaceted project are soil macropores, which basically are subsurface pathways in soils through which water flows. In laboratory and field experiments, the scientists will examine how these macropores—or biopores, as those created by living organisms are called—develop



SOLID EVIDENCE—The small mounds of dirt so clearly visible on this coastal golf course are proof positive that the course is heavily infested with tunnel-digging, turf-destroying mole crickets. Scientists at Auburn are investigating not only how the tunnels that crickets dig affect water's movement through the soil but also whether the insects' burrowing behaviors provide clues for improved control techniques.

and evolve when mole crickets enter the picture and how those spaces alter key soil-water interactions, including infiltration, runoff and contaminant transportation processes.

In addition to broadening the scientific world's knowledge of how water flows and impurities are transported through soils in which substantial macropores are present, the study should yield new findings as to how biopores created by insects differ from artificial macropores typically used in laboratory experiments, especially in terms of flow processes.

And from the entomological perspective, the study will shed light on the burrowing behaviors of mole crickets and could lead to the development of more efficient pesticide delivery strategies for controlling the pests. Currently, turfgrass managers spend hundreds of dollars per acre to keep the pests in check.

The study was the brainchild of Twarakavi, a firm supporter of the principle that all natural processes are inexplicably linked and ideally are studied together.

Scientist's Genetic Discovery Could Aid in Efforts to Prevent, Cure Alzheimer's Disease

In a scientific investigation that is entering its second decade, Auburn University biological scientist and Alabama Agricultural Experiment Station researcher Marie Wooten has discovered a protein molecule in the brain that could prove key in the search for a cure for Alzheimer's disease.

Called p62, the protein apparently plays a critical role in receptor trafficking, a process that keeps neurons, or nerve cells, healthy and capable of transmitting signals and information among themselves. Wooten's research shows that when p62 is removed from the brains of laboratory mice, the rodents become obese and develop Alzheimer's-like symptoms such as memory impairment.

Now, the National Institute of Neurological Disorders and Stroke, which has supported her previous work, has awarded her a four-year, \$1.3-million grant to further explore the basic functions of p62 and to determine whether increased levels of p62 in the brain actually protect mice from Alzheimer's. She is to genetically engineer mice with high levels of the protein. The mice also will be mated to mice that have human genes implicated in Alzheimer's disease.

Wooten and her team will follow the mice as they age and compare the incidences of Alzheimer's-like symptoms in the p62-enhanced mice with those in normal mice and in mice with reduced p62 levels.

"If the increased p62 protein keeps the mice from getting the disease or delays the onset, then

we can start looking into ways to apply the findings in combating the disease in humans," Wooten says. "We also hypothesize that, given p62's role as a trafficking molecule for receptors, the mice with extra p62 may be 'smart mice,' possessing an ability to learn quicker and retain information longer."

Wooten, who is collaborating with Alzheimer's disease research centers at the University of Alabama at Birmingham and Emory University and with faculty in Auburn's Scott-Ritchey Research Center, says the next step in her research would be to examine levels of p62 in the human population, looking at individuals with mild cognitive impairment and moderate to severe Alzheimer's as a function of age.

"We would like to pinpoint a biomarker or early indicator so we could determine the likelihood of Alzheimer's when examining living persons," she said. "Currently, Alzheimer's only can be accurately confirmed in humans by examining the brain after death. The brain will have protein-fragment tangles and deposits that are believed to have blocked communication between the neurons."

Results from that study would indicate whether it would be feasible to develop drug compounds to enhance the amount of p62 in the brain.



THE p62 CONNECTION—Auburn biological sciences professor Marie Wooten has discovered a protein molecule in the brain that is associated with memory loss. Her further research shows that laboratory mice with elevated p62 levels could be less susceptible to Alzheimer's disease.

Wildlife Scientist To Help Stage Comeback for Canebrakes

by JAMIE CREAMER

As he journeyed through the Southeast in the late 1700s, American naturalist and botanist William Bartram was awestruck by the vast stands of rivercane that dominated bottomlands throughout the region. The expansive canebrakes, he wrote, "rolled to the horizon like an ocean" and "exceeded anything I have ever seen."

Today, though, Bartram would be hard pressed to find even a quarter-acre stand of rivercane in the southeastern U.S. because in the 200-plus years since his visit, the native bamboo has ceded more than 95 percent of its original territory to farms, forests, pastures and development.

Canebrakes, which serve not only as stream buffers and stream-bank stabilizers but as critical wildlife habitat as well, now are deemed highly endangered ecosystems, and a move is afoot among natural resource agencies and conservation groups to restore tens of thousands of acres of river cane to its rightful places.

Auburn wildlife scientist Mark Smith is part of that concerted effort, and in a new study funded by the Alabama Agricultural Experiment Station, he aims to determine the most practical, successful, cost-effective techniques for reestablishing rivercane ecosystems.

Obviously, restoring immense thickets of native bamboo in the Southeast requires vast supplies of seedlings, which are not currently available. Within the past two years, though, researchers have developed the technology to produce seedlings via micropropagation, a technique in which thousands of new plants can be regenerated from a single mother plant.

In the first phase of his three-year research project, Smith is working with Roundstone Native Seed, a Kentucky-based native plant producer, to move rivercane micropropagation techniques to the mass-production level. Specifically, he will determine the survival, growth and

development of cane tissue cultures throughout the propagation process and document the true costs of production.

In phase two, the research will move from the laboratory to the field, with the planting of seedlings in three five-acre test plots in north Alabama.



TAKING ROOTSTOCK—Workers load rivercane plants freshly dug from a north Alabama site onto a trailer bound for greenhouses at Roundstone Native Seed in Kentucky as part of a rivercane restoration study AAES wildlife scientist Mark Smith is leading. At Roundstone, technicians are splicing off small sections of the plants' rhizomes and cultivating those sections into small seedlings that eventually will be planted in test plots. Rivercane plants flower and produce seeds only once every 25 or so years, so restoring vast thickets of the native bamboo using seed would be out of the question.

"There's a lot we don't know about establishing rivercane, such as how to prepare the planting sites, how closely to plant the seedlings, how to control competition from other native as well as invasive plant species and the management practices that are necessary to maintain these unique plant communities," Smith says.

Smith stresses that rivercane, the plant, is not an endangered species.

"It can, in fact, be found in small patches here and there throughout Alabama and the Southeast," he says. "It is the large 'thickets,' tens to hundreds of acres in size or larger, that we're missing on the Southeastern landscape."

Smith's research will provide key technical information for cost-effectively restoring valuable rivercane ecosystems to the region.



TUNNEL VISION—These beautiful orange bell peppers that are almost ripe are growing in a high tunnel at the Alabama Agricultural Experiment Station's E.V. Smith Research Center in Shorter as part of Auburn University

horticulturist Wheeler Foshee's long-term research on high-tunnel vegetable and cut-flower production in Alabama. Foshee began the project in 2003 and since has been compiling valuable data designed to help farmers who are interested in high-tunnel production make sound decisions regarding crop selection, production and marketing. High tunnels are arched, plastic-covered, greenhouse-like structures that allow growers to extend the traditional growing and selling seasons for certain horticultural crops and, because early- and late-season tomatoes, peppers and other produce command premium prices in the marketplace, increase their income potential. In trials conducted by Foshee and area Extension research horticulturist Bobby Boozer in Chilton County, the high-tunnel crops that have the most profit potential for Alabama farmers and gardeners include tomatoes, colored bell peppers, blackberries, watermelon and, for the cut-flower market, snapdragons and dianthus. Foshee points out, however, that while they can be an attractive source of income, high tunnels demand an extremely high level of management and are by no means get-rich-quick-and-easy ventures. Photo inset, the red, white, blue and black materials that cover groups of high-tunnel colored bell pepper plants at E.V. Smith are shade cloths, which can lower temperatures in the hot summertime and allow the peppers to develop full color. This particular study will help determine whether certain colors of shade cloth cool plants more effectively than others.



Plankton Study Could Help Resolve Pond-Scum Problems

by JAMIE CREAMER

As a freshwater ecologist, Auburn University fisheries assistant professor and Alabama Agricultural Experiment Station scientist Alan Wilson concentrates his research on two microscopic aquatic communities: free-floating aquatic plants, called phytoplankton, which are the base of aquatic food webs; and their animal counterparts, crustacean herbivores, or zooplankton. Specifically, he studies how ecological interactions between these organisms influence water quality, community structure and ecosystem function in lakes and ponds.

Of special interest to Wilson are cyanobacteria, commonly known as blue-green algae or pond scum, and other phytoplankton species that form dense blooms in freshwater habitats characterized by high concentrations of nutrients such as phosphorus. Cyanobacterial blooms can be harmful to fish, pets, livestock and humans.

In a collaborative research project funded by a \$400,000 grant from the National Science Foundation, Wilson and colleague Orlando Sarnelle of Michigan State University are conducting small-scale laboratory experiments to study how a diet



SCUM BUCKET—A member of Alan Wilson's research team collects a bucketful of blue-green algae—also known as cyanobacteria or pond scum—from an aquaculture pond in west Alabama. In ponds and lakes with high levels of nutrients, cyanobacteria can form toxic blooms harmful to fish, man and beast. Wilson's latest research could lead to the development of management strategies for controlling blue-green algae using biological agents instead of aquatic herbicides.

rich in toxic cyanobacteria affects growth in *Daphnia pulicaria*, a large-bodied zooplankton species.

Meanwhile, in large-scale field trials at Auburn's E.W. Shell Fisheries Center, they are working to determine how *D. pulicaria* influence the diversity and abundance of toxic cyanobacteria in nature.

Previous studies have suggested that large zooplankton, including *D. pulicaria*, cannot thrive on toxic cyanobacteria, but Wilson and Sarnelle challenge that blanket assessment, theorizing that traits can vary among animals of the same species and that *D. pulicaria* collected from lakes with high concentrations of cyanobacteria are more tolerant of toxic phytoplankton in the diet than *D. pulicaria* collected from low-nutrient lakes with little or no cyanobacteria because they have adapted to them.

His research thus far supports those theories and indicates that, given their adaptations to toxic prey, cyanobacteria-tolerant *D. pulicaria* should be better able to control cyanobacteria in nature.

In addition to providing new information about predator adaptation and trait variations within species in aquatic communities, the project could contribute to the development of management strategies aimed at reducing phytoplankton blooms in lakes by increasing the populations of cyanobacteria-tolerant *D. pulicaria* rather than by applying aquatic herbicides.

For more information about the study, contact Wilson at wilson@auburn.edu or go to <http://wilsonlab.com/>.



CREATIVE POWER OF CONTROLLED BURN—Les Goertzen, assistant professor of biological sciences, starts a controlled burn in the the Black Belt section of the Davis Arboretum. Assisting in the controlled burn were arboretum staff, committee members and student workers from horticulture, biological sciences, fisheries, forestry and landscape architecture.

College of Sciences and Mathematics
Burning the Black Belt

The diverse Alabama habitats found in the College of Sciences and Mathematics' Donald E. Davis Arboretum require a myriad of management techniques and skills. One such technique, applied in the Black Belt section of the arboretum for the first time in early March, is controlled burning.

The Black Belt section of the arboretum contains the fertile black-clay soil that gave the Black Belt region of Alabama its name. Growing in this area are grasses and native wildflowers representative of the Black Belt prairies.

"Setting a small, controlled fire, which is called controlled burning, can help us get rid of overgrowth, nonnative species and dead grasses so that native species have the proper conditions they need to grow," says arboretum curator Dee Smith.

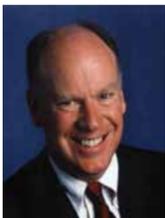
Les Goertzen, assistant professor of biological sciences, agrees.

"So many native plants have evolved and adapted to a natural fire regime that fire is necessary for enhanced germination and growth of native wildflowers," says Goertzen, who uses the Black Belt section of the arboretum to teach his students in systematic botany about Alabama's native wildflowers. "We will see a big difference in a month or so in the diversity of native species popping up in this area."

Anemones, wild onion, verbasicum, mints, buttercups, blue bells and spiderwort are examples of the native wildflowers that will enjoy enhanced growth in the arboretum due to controlled burning.

College of Human Sciences

Kiplinger Keynote Speaker at WPB Spring Symposium



Knight Kiplinger

The Women's Philanthropy Board in the College of Human Sciences held its eighth annual Spring Symposium on April 26 with a focus on thriving in the "New Normal" and maximizing your philanthropic footprint. Economic journalist and business forecaster

Knight Kiplinger—editor-in-chief of *Kiplinger's Personal Finance Magazine*, *Kiplinger.com* and the *Kiplinger Letter*—presented the keynote address.

Other business and government leaders who spoke at the symposium included Irene Collins, commissioner, Alabama Department of Senior Services; Stephanie Brown, managing director and general counsel, LPL Financial; Joanna Krotz, author of *The Intelligent Guide to Giving: Make a Difference in the World and in Your Own Life*; Katie Libbe, vice president, Consumer Marketing and Solutions, Allianz Life Insurance Company of America; and Joe Zidle, investment strategist, Banc of America, Merrill Lynch Global Research.

The symposium took place from 8 a.m. to 2 p.m. at The Hotel at Auburn University and Dixon Conference Center. To learn more, contact Sidney James Nakhjavan, director of the Women's Philanthropy Board, at 334-844-3524 or wpbchs1@auburn.edu.

Auburn Freshman Awarded S.C. License to Learn Scholarship



Davis Myers

College of Human Sciences' hotel and restaurant management major Davis Myers of Spartanburg, S.C., has been named the first recipient of the South Carolina License to Learn Scholarship, funded by sales from the state's first-ever Auburn University license

tag. Up to 94 percent of the fee from the sale of each tag goes into the South Carolina License to Learn Scholarship Endowment Fund that raises monies for freshman scholarships for students specifically from South Carolina. Efforts to create the tag, were led by the Palmetto Auburn Club.

College of Veterinary Medicine

AgERT Course Trains First Responders for Agricultural Emergencies

In collaboration with the Department of Homeland Security's Center for Domestic Preparedness, the Auburn University College of Veterinary Medicine is training members of the emergency response community in basic skills required to deal with an agricultural infectious disease event.

Known as AgERT, or Agricultural Emergency Response Training, this 40-hour course provides federal, state and local veterinarians as well as traditional first responders including fire, law and emergency management personnel with instruction on epidemiology, foreign animal disease recognition, animal restraint and euthanasia and methods of mass carcass disposal. The course culminates with a scenario-based, hands-on practical exercise at the college in which participants plan and execute a response to a hazardous event in an agricultural setting.

"After taking the course, responders are able to support each other in an agriculture incident, ensuring a more efficient and secure response," says Julie Gard, associate professor in the CVM's department of clinical sciences and one of four AgERT instructors in the CVM.

The AgERT program—the only one offered by the Department of Homeland Security—provides training each year for more than 400 first responders from across the nation and has trained agricultural and traditional responders from all 50 states, four U.S. territories, the Navaho nation, Canada and Mexico.



READYING RESPONDERS—AgERT trains first responders on the proper selection and use of personal protective equipment and other critical skills needed to perform during an agroterrorism event.



WHAT A NOSE—Blaze, a yellow Labrador retriever, and one of two dogs in the SFWS's rare-animal-detection program, is trained to sniff out the scat, or feces, of spotted skunks. Her brother, Bishop, a black Lab, is trained to indicate on striped skunk scat. The program is expanding and plans are to have dogs trained to locate mountain lion scat and black bear scat so that more can be learned about those rare animals as well.

School of Forestry and Wildlife Sciences
Scenting Dogs Sniff Out Rare Animals

With their keen sense of smell, dogs have been used throughout the years to sniff out everything from bombs to missing persons. Thanks to School of Forestry and Wildlife Sciences assistant professor Todd Steury, skunks can now be added to that mix.

As part of his research focus, Steury studies some of the state's hard-to-find carnivores, including striped and Eastern spotted skunks and long-tailed weasels, in order to learn more about the habitat requirements of each species and to determine why the animals' populations seem to be declining. In order to study the species, they first have to be located, which can prove challenging for an animal that is rarely seen.

With help from Auburn's Canine Detection Center, part of the College of Veterinary Medicine, and guidance from Steury, two dogs have been trained to sniff out particular animal species.

"The advantage to using dogs is that you can find things that you otherwise wouldn't be able to find," Steury says. "Dogs are almost 100 percent successful at being able to locate what you're looking for."

Specifically, the dogs are trained to search for the animals' fecal matter, or scat. A lot can be learned from an animal's fecal matter, Steury says, and by running DNA tests, even more information can be obtained. Anything from what the animal ate to its gender and whether or not it has been under stress (as indicated through certain hormones) can all be

determined. This information will eventually be used to develop a habitat assessment and help manage habitats to maintain the species.

Climate Group Helps Farmers Manage Risks

Farming is risky business, and on no front more so than the weather. Fortunately for today's farmers, though, resources are available that can help them better manage the uncertain climate and reduce the impact that weather extremes have on crop quality and yield.

"Climate is a factor that certainly plays a big role in limiting yield," says Brenda Ortiz, an Alabama Cooperative Extension System agronomist and Auburn University assistant professor of agronomy and soils. "Farmers can't control climate and weather, but they can adjust management practices according to what is going to happen."

Thanks to advances in climate sciences and technologies, scientists now can anticipate changes in prevailing weather patterns months in advance, and farmers in Alabama and across the southeastern U.S. are staying on top of such forecasts through the Southeast Climate Consortium.

The SECC (www.seclimate.org) is a team of scientists from a number of disciplines and institutions committed to providing scientifically sound information and decision-support tools farmers can use to identify climate variability and its magnitude and to adjust their management decisions accordingly.

Ortiz travels extensively through the state, introducing producers to these new insights and SECC climate-management tools they can access for free at <http://agroclimate.org/tools/> and underscoring the priceless role they could play in formulating crop management decisions.

"We're trying to educate not only farmers but also Extension educators and crop consultants on how to take advantage of these tools," she says.

Using climate data and the corresponding tools associated with El Niño and La Niña weather patterns, for instance, producers can determine how their yields ultimately will be affected as well as when and where crops should be optimally planted.

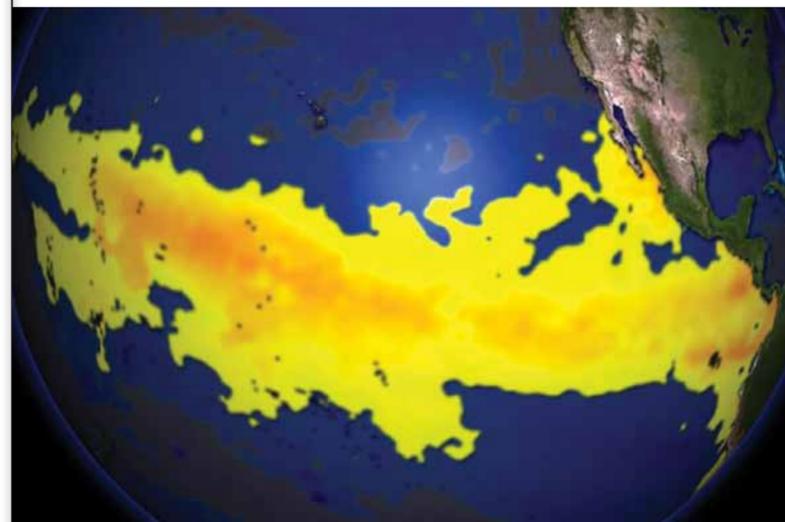
"In the case of La Niña, for example, they may choose to plant a crop that is less susceptible to drought or, in the case of El Niño weather patterns, crops that are more tolerant to excessive rainfall," Ortiz says.

One especially important AgroClimate resource is the climate risk tool, which provides historical information about rainfall and temperature based on climate phases. The feature also provides historic weather data for the past five years.

Another valuable tool, especially for corn producers, is the yield risk tool. By specifying factors such as county, main soil type and whether the cropland is irrigated or nonirrigated, producers

are able to identify potentially optimal planting dates.

Collectively, the tools can help farmers plan their strategies up to six months in advance of specific conditions. Based on the planting dates they choose, they also can get a clear idea of when their crops will be ready for harvest.



PACIFIC PHENOMENON—This February 2010 image from National Oceanic and Atmospheric Administration satellites shows the El Niño that is expected to continue in the Pacific basin through the spring. El Niño is characterized by unusually warm waters in the Pacific; here, the red areas in the Central and Eastern Pacific indicate the warmest temperatures.

Profit Essential to Sustainable Ag

Early in his career as an Extension agricultural economist at North Carolina and Oklahoma State universities, John Ikerd preached profitability. The overriding goal of farming, he would advise producers, was to turn a profit, no matter what it took. Today, Ikerd is widely known as a passionate advocate for sustainable agriculture, touting it as the wave of the future and a key to improving the quality of life for farming and rural communities.

Alabama Cooperative Extension System ag economist Max Runge at Auburn appreciates the issues that Ikerd and other sustainability proponents advance, but he says the reality is that you can't have sustainability unless there's profitability.

"If it's not profitable, it's not going to be sustainable because producers are not going to be willing to do it," Runge says.

Therein lies the big dilemma of sustainable farming, Runge says. Lots of people want a sustainable farming model—a growing number of advocates and policymakers are demanding it, in fact—but such a model will not be achievable so long as farmers are unable to earn a living from it, he says.

In his push for sustainable agriculture, Ikerd expresses strong concerns about the overreliance on petroleum and water in modern-day agriculture, and Runge echoes those concerns. Still, he says, how farmers end up dealing with static supplies of both commodities in the midst of overpopulation will have to be addressed within the larger dynamic of profitability, a dynamic that for decades has helped define what is sustainable and unsustainable over the long haul.

"In terms of our overall income, the percentage of what we spend on food has gone down tremendously in the last 80 years," he says. "Then, we were spending slightly less than 20 percent of our income on food; today that has been reduced to less than 7 percent."

Moreover, the percentage that Americans pay for food is considerably lower than other western countries. Germans spend about 11 percent of their income on food, while the French spend more than 15 percent.

For his part, Runge is confident that sustainable practices, such as organic farming, will continue to make inroads into U.S. farming within the next few decades. Several growers in Alabama already have adopted organic practices in varying degrees, and Runge suspects that number will increase as marketing conditions become more favorable.

"There are going to be people willing to grow organic-type foods, but it will only be to the extent that people are willing to pay for it," Runge says. "The final arbiter will always be the market."



ON BOARD—Extension animal scientist Frank Owsley, whose expertise is in swine nutrition and management and environmental stewardship in agriculture, now serves on a national board that promotes animal well-being.

Owsley Joins Animal-Care Organization's Board

Frank Owsley, an animal scientist with the Alabama Cooperative Extension System, has been named to the board of directors of the Professional Animal Auditor Certification Organization. Owsley, who is also an associate professor of animal sciences in Auburn University's College of Agriculture, was appointed to the board by the American Registry of Professional Animal Scientists.

Owsley serves as Extension's coordinator of food-animal quality-assurance programs, specifically beef and pork. The programs focus on animal care and well-being and provide beef and pork producers training in the relationship between animal care/handling and animal performance/profitability. In his work with quality-assurance programs, Owsley increases consumer awareness of normal production practices and their importance to good animal care.

The certification organization Owsley now helps govern is a coalition of five professional animal industry organizations including the American Association of Avian Pathologists, American Association of Bovine Practitioners, American Association of Swine Veterinarians, American Registry of Professional Animal Scientists and Federation of Animal Science Societies.

The Professional Animal Auditor Certification Organization's mission is to promote the humane treatment of animals through education and certification of animal auditors. It was formed in 2004 when leaders of the founding organizations identified a need to promote and advance sound animal auditing through standards for education, training and experience.

Calendar of Events

May • 2010

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June • 2010

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July • 2010

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24	25	26	27	28	29	30
31						

May 20

Summer Classes Begin

May 27-Aug. 26

The Market at Ag Heritage Park
Thursdays, 3-6 p.m.

Auburn

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 26.

Contact: Laura Herring at 334-321-1603 or herrilm@auburn.edu



PRODUCE A-PLenty—There will be plenty of fresh produce available throughout the summer at The Market at Ag Heritage Park, which opens May 27. For more information go to www.ag.auburn.edu/themarket.

May 31

Memorial Day Holiday

June 11

Blackberry Spotlight and High Tunnel Fruit
Production Workshop

Chilton Research and Extension Center
3-6 p.m.

This event will feature information on large- and small-scale blackberry production and results of research on high tunnel production of blackberries, strawberries and Satsumas.

Contact: Bobby Boozert at boozert@auburn.edu or 205-646-4123

July 5

Independence Day Holiday

July 23

Discover Your World: Auburn Edition

Auburn

This one-day program highlights opportunities in agriculture for students in grades 10 through 12. Through hands-on programming students learn about pre-vet, environmental quality, science, global positioning systems and much more.

Contact: Deborah Solie at das0002@auburn.edu or www.ag.auburn.edu/goplaces/events and click on "Summer Program"

Tardy but Still Timely

Just as we had this issue of *Ag Illustrated* ready to go to press, we experienced a small glitch with a new printer contract, which means this April issue may not reach you until early May. But the glitch is now fixed and we are back on track for the next issue, which will come out in June. We apologize for our tardiness this time, but the information is still timely and, we hope, entertaining and helpful to you. If you have questions, comments, story ideas, alumni updates or anything else to share with us, call 334-844-5887 or send an e-mail to agcomm@auburn.edu.

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AG Illustrated

Recipe File

Breakfast Delights Recipes Now Available Online

Among the many perks of working in the College of Ag are the potluck parties we hold that showcase the cooking talents of our staff, faculty and administrators. One such event was a breakfast held recently to congratulate Kelley Terry, who left her job as special projects coordinator in the dean's office to become a contract and grants specialist for the AAES and the Department of Biosystems Engineering. There were so many great breakfast dishes on the table that day that we decided to collect the recipes and post them on the College of Ag Web site, along with other recipes from past *Ag Illustrated* issues. Among them is the following dish, prepared by our student recruiter, Deborah Solie, who adapted it from a Paula Deen recipe. With blueberry season fast approaching, it should be just the thing for a spring or summer morning, though you'll find many other options at www.ag.auburn.edu/recipes. If you have a recipe you'd like to submit to our site, send it to creamjs@auburn.edu.



BERRY GOOD—Deborah Solie shows off her version of a blueberry coffee cake featured in this issue. This dish is not only tasty, but also a perfect opportunity to use fresh blueberries, which will be coming into season locally in May and June.

Granite Steps Country Blueberry Coffee Cake

- ½ cup (1 stick) butter, melted
- 1 12-ounce can pop-n-bake buttermilk biscuits
- ½ teaspoon cinnamon
- ½ cup packed light brown sugar
- 1 cup quick-cooking rolled oats
- 1 ½ cup fresh or frozen blueberries
- ½ cup granulated sugar

Preheat oven to 375 degrees. Generously grease a 9-inch square baking dish. In a small bowl, combine brown sugar and cinnamon and mix well with a fork. Separate biscuit dough into 10 biscuits. Cut each biscuit into quarters, dip each piece in melted butter and coat with brown sugar mixture. Arrange in a single layer in baking dish. Sprinkle with ½ cup of the oats. Combine blueberries and granulated sugar in a bowl and toss to coat. Spoon this mixture over oats and biscuits and sprinkle with remaining ½ cup oats. Drizzle melted butter on top. Bake for 20 minutes or until cake is golden brown and center is done. Cool for 20 minutes. Serve warm.