

AG illustrated

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Just Do It

New Ag Dean, AAES Director a Mover and Shaker

by JAMIE CREAMER



NOW, AND THEN—Bill Batchelor took over the reins as Auburn University College of Agriculture dean and Alabama Agricultural Experiment Station director July 15 and, in that dual role, aims to make Auburn agriculture a leader in addressing state, national and global issues. Batchelor came to Auburn from Mississippi State University, but he and his three brothers and one sister grew up in Marietta, Ga. In the 1967 photo above, the 3-year-old future dean stands to the right of older brother Barry, age 4, while younger brother Tim, age 2, sits beside Pat the bird dog.

“I had a lot of trouble with biology, made the only Cs in my life in biology,” he says.

His best subjects were math and physics, skills that would serve him well in the field of engineering, so he transferred from forestry to agricultural engineering. In his new major, he chose the electrical side of ag engineering over the soil and water option.

“I was excited about making the change, and I stayed excited about it,” he says.

A few quarters into his college education, Batchelor took his first-ever computer course, and he was astounded by “the thought that you could tell this computer what to do and it would do it.” His senior year at Georgia, he got hired as a student worker for one of the department’s professors—a professor who was exploring how emerging areas of computer science, such as computer simulation and artificial intelligence, could be applied to agriculture.

Batchelor found the field fascinating, so much so that as soon as he graduated with a bachelor’s degree in ag engineering in 1986, he went straight into graduate school. He earned his master’s in 1987 and immediately became a

(continued on page 4)

BILL BATCHELOR couldn’t have been more than 8 or 9 when he landed his first paying job, picking up sticks and limbs left in the wake of an ice storm that had hit his hometown in Georgia. His take-home pay was six Oreos.

A couple of years later, Batchelor decided to go into the grass-cutting business. But he wasn’t working for Oreos anymore.

“I had wisened up by then,” he says. “I was charging 50 cents an hour.”

When he turned 16, the local Pizza Inn hired him as dishwasher, and by the time he left there for a primo, higher-paying job as a stock clerk at Winn Dixie, he was making pizzas. Wherever he was employed, Batchelor worked hard, and he worked long.

“What I made went a long way toward paying for college,” he says. “I’d work days, nights, weekends—anytime they’d let me.”

Fast-forward 30 years, and in his new position as dean and director of the College of Agriculture and Alabama Agricultural Experiment Station, Batchelor’s still working days, nights and some weekends. From July 15, his first official day at Auburn, through at least the last of September, his calendar was packed with back-to-back-to-back meetings, events, conferences, out-of-town visits, breakfasts, lunches and dinners with faculty, staff, students, university administrators, alumni, farmers and stakeholders. That nonstop schedule had to be exhausting and, at times, frustrating or boring, didn’t it?

Not at all, Batchelor says.

“I’m one of those people who work 24 hours a day,” the 46-year-old says. “I always have been. It’s my lifestyle.”

Maybe that driven spirit has something to do with his birth order.

“I was the second of five children, and they say the second-born is the competitive one,” he says. “I wouldn’t say I’m competitive now; I would say I’m an aggressive person. I want to see things get done.

“My philosophy is, decide what you’re going to do, and then do it.”

So when he says that, by year’s end, both the college and the Experiment Station will have in place strategic plans that aim to make Auburn agriculture a leader in addressing global issues, and that, by next summer, these strategic plans, will swing into action, believe it.

Batchelor came to Auburn from Mississippi State University, but he grew up on the other side of Alabama, in the Atlanta suburb of Marietta. He lived in what he describes as a pocket of about 100 acres of land that his family and several others owned individually and in various acreages. Among those families, only the Batchelors had kids: four boys, one girl. Batchelor says it was “the life.”

“We had free roam of all that land,” he says. “We ruled the roost in our neighborhood.” They took full advantage of that freedom, too, spending almost as much of their childhood and teenage years outside as they did in. Batchelor so loved the great outdoors that he entered the University of Georgia in 1982 dead set on becoming a forest ranger. He soon discovered, though, that about half of the male incoming freshmen at UGA that fall were dead set on the same thing.

If that future glut of forest rangers didn’t quite convince him to rethink his choice of majors, biology did.

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View from AGhill

Harvest season is upon us. While many folks carry on with their lives, thankful for cooler weather and perhaps focused on football, harvest time is a special time in the agricultural community. Harvest is a time of assessment of the job we did. It is a time of reflection on what worked well and what didn't work so well in producing the crops. It is also a time to reflect on how progress in agriculture has changed the world.

In the not-too-distant past, the vast majority of people made their living producing food and fiber. It took most of society's labor to feed itself. The past century brought about many technological advancements that increased agricultural productivity, freeing up labor to create new industries around the world. What is lost over generations is the fundamental understanding of how improvements in agricultural efficiency were the catalyst for the most remarkable period of advancement in civilization's history. Today, less than 2 percent of the population produces an abundance of food for the world, freeing up the remainder of the population for economic development. Increased agricultural productivity, coupled with organized and efficient food processing and distribution systems, is critical to sustaining economic growth and political stability. While agriculture is the fundamental industry that supports the global economy, the next 50 years will bring new challenges for the agricultural community.

Global population is projected to increase by 50 percent to more than 9 billion people by 2050. At the same time, global economic policies encouraging free trade are leading to increased wealth in many of the countries projected to have large increases in population. Increased population coupled with increased wealth will lead to a dramatic increase in global food demand.

This defines one of the greatest challenges facing agriculture during the next 50 years—how to increase food production in a sustainable way. Increasing food production will require new advances in genetics and management technologies. It will also stress cropland and ecosystems. Protecting the land under increased production will be the second greatest challenge facing agriculture during the next 50 years. The final challenge is recruiting students into our programs with a passion to feed the world.



Auburn University is in a great position to address these challenges. During the next year we will be focused on developing a new strategic plan to address these challenges. We welcome your input and hope that you will be involved in any way you can to make us successful. War Eagle!

Bill Batchelor

DEAN, COLLEGE OF AGRICULTURE
DIRECTOR, ALABAMA AGRICULTURAL EXPERIMENT STATION

Nine Ag Faculty Awarded Endowed Professorships

by JAMIE CREAMER

Auburn President Jay Gogue has awarded endowed professorships to nine College of Agriculture faculty members in recognition of their exceptional performance in teaching, research and outreach. The endowments were established as part of a university-wide campaign to fund 81 new professorships in one year. Endowed and named professorships are the most esteemed faculty honors Auburn awards.

Following are recipients of the professorships, including seven in horticulture and two in entomology and plant pathology.

The Dr. Ronald L. Shumack Endowed Professorship in the Department of Horticulture has been awarded to horticulture professor **Harry Ponder**. Shumack is retired after nearly 50 years of service to Auburn and the horticulture field. At Auburn, he served as horticulture department professor and head and in top administrative positions for the College of Ag. Ponder has won major teaching awards at the university, state and national levels and is responsible for establishing the horticulture department's highly successful internship and job-placement programs.

Joe Klopper, professor of plant pathology, is the recipient of the Becker Underwood Endowed Professorship in the Department of Entomology and Plant Pathology. Klopper is an international authority in plant growth-promoting rhizobacteria, bacteria that enhance plant development, and his research initiatives have generated more than \$10 million in external grant funding since 1989. Becker Underwood is a global leader of innovative non-pesticide products.

Department of Horticulture professor **Charles Gilliam** now holds the Dr. William A. Jr. and Cecelia Dozier Endowed Professorship, which was established by the Doziers' children along with generous contributions from the Alabama Farmers Federation, the Lee County Farmers Federation and Dozier's colleagues in the horticulture department to honor Dozier for his almost 50 years of service at Auburn. Gilliam, a former horticulture department chair and graduate program director, has earned top regional awards for his ornamental horticultural research.

The Dwight and Ruth Ann Nunn Bond Professorship in the Department of Horticulture—the seventh endowment the Bonds have created at Auburn—has been awarded to **William Goff**, Extension specialist and

horticulture professor at Auburn. The Bonds, both Alabama Polytechnic Institute alumni, created the professorships to promote and strengthen the commitment to both service learning and the pecan industry. Goff has been involved with the pecan industry for more than 30 years, has written 300-plus articles about pecan production and has been recognized by the Louisiana pecan growers as the Outstanding U.S. Pecan Scientist.

A professorship that the Department of Entomology and Plant Pathology faculty established to encourage and reward excellence in the department has been awarded to entomology professor **Nannan Liu**. Liu is known internationally as an authority in insect toxicology and molecular biology and in her 13 years at Auburn has secured more than \$1.5 million in grant funding.

Recipient of the Jimmy and Chris Pursell Professorship in the Department of Horticulture is horticulture professor **Joe Eakes**. The Pursells established the endowment to acknowledge advancements in world-changing fertilizer technologies and to help Auburn build the foremost public horticulture program in the nation. Eakes's forte is landscape horticulture, and his outreach efforts have resulted in a unique project to overhaul the landscape at Fayetteville School near Sylacauga. That project has the Pursells' support, as do Eakes' current efforts to develop a public horticulture graduate program at Auburn.

Horticulture professor **William Dozier** is now the Dr. Harry G. Ponder Professor in the Department of Horticulture. The endowment to honor Ponder was created by gifts from friends, colleagues and current and former students and recognizes his key role in building the horticulture department's national reputation. Dozier has devoted much of his half century at Auburn to teaching students and growers about commercial fruit production.

The Dr. Thomas H. Dodd Jr. Endowed Professorship in horticulture has been awarded to professor **Gary Kever**. Dodd, now deceased, of Semmes was a pioneer in the nursery industry. Kever, who joined the department in 1982, has worked closely with the south Alabama nursery industry to improve plant production efficiency. His professional interests emphasize innovations in landscape gardening and design.

And finally, **Jeff Sibley** is the Barbara and Charles Bohmann Professor in the Department of Horticulture. Friends of the Bohmanns created the professorship to recognize their lifelong commitments to the advancement and enjoyment of horticulture as well as their long service to the Garden Clubs of Alabama Inc. In his 14 years on the Auburn horticulture faculty, Sibley has directed the graduate programs of 35 students and has been honored for his outstanding service as adviser, researcher and teacher.

College of Ag Plans Seven-Night Scholarship Cruise



The Auburn University College of Agriculture is inviting alumni and friends to be a part of the fun on its fourth annual scholarship cruise, slated for March 13-20 aboard Carnival Cruise Line's ship *Glory*. The 2011 cruise, the college's first seven-day sail, will depart from Miami and take passengers first to Nassau in the Bahamas and then on to St. Thomas, San Juan and Grand Turk.

As has been the case with the college's three previous scholarship cruises, \$50 from each passenger's fare, along with matching dollars from Carnival, will go toward a scholarship fund in the college. Thus far, the cruise venture has generated \$4,750 and funded one scholarship a year in 2008, 2009 and 2010.

Ag development officer Mark Wilton says he has reserved 30 cabins aboard the *Glory*, and he's counting on a sellout.

"If we book all 30 of those cabins, we'll raise \$6,000, and that will allow us to award two scholarships for the 2011-12 academic year," he says.

Of *Glory's* 1,487 staterooms—which Carnival describes as extra spacious—60 percent offer ocean views, and 60 percent of those have private balconies. Wilton says the ship is loaded with incredible features, including restaurants, a 214-foot waterslide, live performances, a casino, a dance club, a library, a sports park, a spa, shopping, age-appropriate activities for kids from 2 through 17 and a seaside theater that boasts a 12-by-22-foot LED screen.

The cost of the cruise, based on double occupancy, is \$935 per person for an inside cabin, \$975 per person for a cabin with an ocean view and \$1,125 each for a cabin with a balcony. The price includes meals, entertainment, 24-hour room service, prepaid gratuities, access to group shore excursions, the \$50 College of Ag donation, a hospitality meet and greet for all scholarship cruise passengers and a newly designed College of Ag T-shirt.

The final deadline to register for the *Glory* cruise is Dec. 12. Full payment will be required at that time.

To discover more about the cruise or to register, visit kytravels.com/alumni on the Web.

Auburn Agriculture Hall of Honor Inductees Named

Five men who have made significant contributions to Alabama agriculture will be honored Feb. 22, 2011, when they are inducted into the Auburn University Ag Alumni Association's Hall of Honor/Pioneer Award gallery.

Those slated for induction into the Hall of Honor, which honors living Alabamians for their achievements in and for Alabama agriculture, are Jerry Newby of Athens, Dallas Hartzog of Headland and Harold Pate of Lowndesboro.

Those winning Pioneer Awards, which are given posthumously to Alabama agricultural leaders, are John Cottier and B.W. "Buck" Appleton.

For more information on the Hall of Honor awards and upcoming banquet, contact Martha Patterson at 334-844-3595 or pattens@auburn.edu.

Ag Roundup, Taste of Alabama 2010 Planned for Nov. 6



FUN IN THE SUN—Students, alumni, faculty staff and even complete strangers can usually find lots of sun and always find plenty of fun and interesting exhibits and food at the annual Ag Roundup and Taste of Alabama Agriculture event to be held Nov. 6 (homecoming weekend) at Ag Heritage Park.

Auburn University's largest tailgate party—the ever-popular Fall Roundup and Taste of Alabama Agriculture to be held on Nov. 6 prior to the Auburn/Tennessee-Chattanooga homecoming game—is moving locations, but just around the corner.

This year's Roundup and Taste of Alabama will still be at Ag Heritage Park but is shifting locations to the greenspace surrounding the Alabama Farmers Pavilion off Donahue Drive near the intersection of Lem Morrison Drive.

According to Elaine Rollo, who leads the Roundup/Taste organizational effort, the new site provides more room and visibility for the event, which has grown by leaps and bounds since it began more than 30 years ago.

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

The event 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, goat, turnip greens and sweet potato fries.

In addition, live and silent auctions will be held to raise money for College of Agriculture scholarships, informative displays from Auburn University departments and organizations and various commodity groups will be set up and there will be live music, children's activities and visits from the AU Pep Band and the AU Cheerleaders.

Ag Roundup/Taste of Alabama Agriculture kicks off at 9 a.m. homecoming Saturday and wraps up at noon. 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 exhibits at Ag Roundup. There is no fee for participation and each exhibitor will be provided approximately 15 feet of setup space, a table and chairs. Exhibitors may also bring their own small tents (8- by 8-foot or 10- by 10-foot). No product sales are allowed, but samples of products may be offered. Donations of auction items are also welcome.

For more information, call 334-844-3204 or 334-844-3596 or send an e-mail to rollomc@auburn.edu.

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Check out our NEW online store at www.ag.auburn.edu/onlinestore.

The online store has a selection of T-shirts, hats and other items. Show your love for the College of Agriculture by purchasing a shirt or hat today!

STORE

ALL PROCEEDS GO TO SUPPORT STUDENT ACTIVITIES!

(JUST DO IT, from page 1)

UGA employee, working as an ag engineering instructor in the department.

He'd always enjoyed the research side of things, but it didn't take him long to realize that he loved teaching. So in 1990, he said

goodbye to UGA and went to the Sunshine State to start the University of Florida's Ph.D. program in ag engineering.

Accompanying Batchelor on his move from Athens to Gainesville was his new bride, Dawn. The two had met Oct. 28, 1988, on a blind date that Batchelor had agreed to only because he owed his best friend a favor. (And besides, it was to a Georgia Bulldogs football game.) Dawn, who hailed from the Atlanta suburb of Woodstock, was in nursing school at Kennesaw State University and was just in town for the game. The two had a nice time, and that was about it.

FAMILY TIME—Dawn Batchelor deserves a hats off for getting all members of the Batchelor party—including four boys who are involved in band and multiple sports in Auburn public schools and her husband, Bill, who has been working almost nonstop since becoming the new dean of Auburn's College of Agriculture and director of the Alabama Agriculture Experiment Station—together for a family photo. The Batchelor boys are, seated, from left, David, 17, and Adam, 14; and, standing, at left, Sam, 12, and, at right, Jacob, 13.

"It was not love at first sight, for either one of us," Batchelor says.

But at some point the relationship blossomed, and in March 1990, they were married.

In Gainesville, she worked at Shands Hospital, and he toward his doctorate. He was awarded his Ph.D. in 1993, and the couple moved to Blacksburg, Va., where he had accepted a post-doc position at Virginia Tech. Within a year, though, Iowa State offered him an assistant professorship in ag engineering, and he took it. At Iowa State, he was promoted to associate and then full professor and also gained administrative experience directing regional projects.

"I liked doing things administratively—creating a vision, organizing people, going after money and realizing that vision," he says.

In 2005, he accepted a job at Mississippi State, and the Batchelor family—which by then also included David, Adam, Jacob and Sam—headed south to Starkville. At MSU, Batchelor led the development of a Sustainable Energy Research Center and served as its director as well as director of MSU's Energy Institute. He planned to keep his family there for the long haul.

Then he heard about the Auburn job and started doing a little research.

"Auburn (agriculture) was ready to do something," he says. "It was ready for new leadership and definitely had the potential to be a leader in tackling global challenges—food and fiber production, energy production, sustainable and environmentally sound practices and human health and nutrition."

Ultimately, the Auburn job was offered, and, ultimately, he accepted.

"You have to make sure a job 'fits' before you can seriously consider taking it," he says. "Auburn was a definite fit." **CS**



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Success Story

A Dream Job

Teel Finds Future at Quail Hollow Gardens

by KATIE JACKSON

JAPANESE MAPLES HAVE MANY CHARMS, but who'd have guessed they could be such great matchmakers?

That's certainly the role they have played in Casey Teel's life, both personally and professionally.

A recent graduate of the Department of Horticulture (August 2010), Teel is manager of Quail Hollow Gardens (www.quailhollowgardens.com) in Macon County, a job he accepted months before he received his Auburn diploma and one that holds great promise for his future.

Teel, who grew up in an Andalusia family of Alabama fans, worked for a local landscape and nursery company his senior year in high school but initially planned to become an engineer. After two years at Lurleen B. Wallace Community College, where he discovered "I was no good at math," Teel decided that he'd rather become a horticulturist and, despite his Crimson Tide upbringing, he knew Auburn was the place to come for a horticulture degree.

He has not regretted that decision and, luckily, no one here held his former University of Alabama affections against him, least of all his boss at Quail Hollow, former Auburn University football coach Pat Dye.

Teel's relationship with Dye began when Jeff Sibley, a professor in horticulture, took Teel and others from his fall 2009 Nursery Management class on a field trip to Dye's Crooked Oaks plantation near Notasulga. Dye and his partner in life and business, Nancy McDonald, were establishing a Japanese maple garden and nursery there.

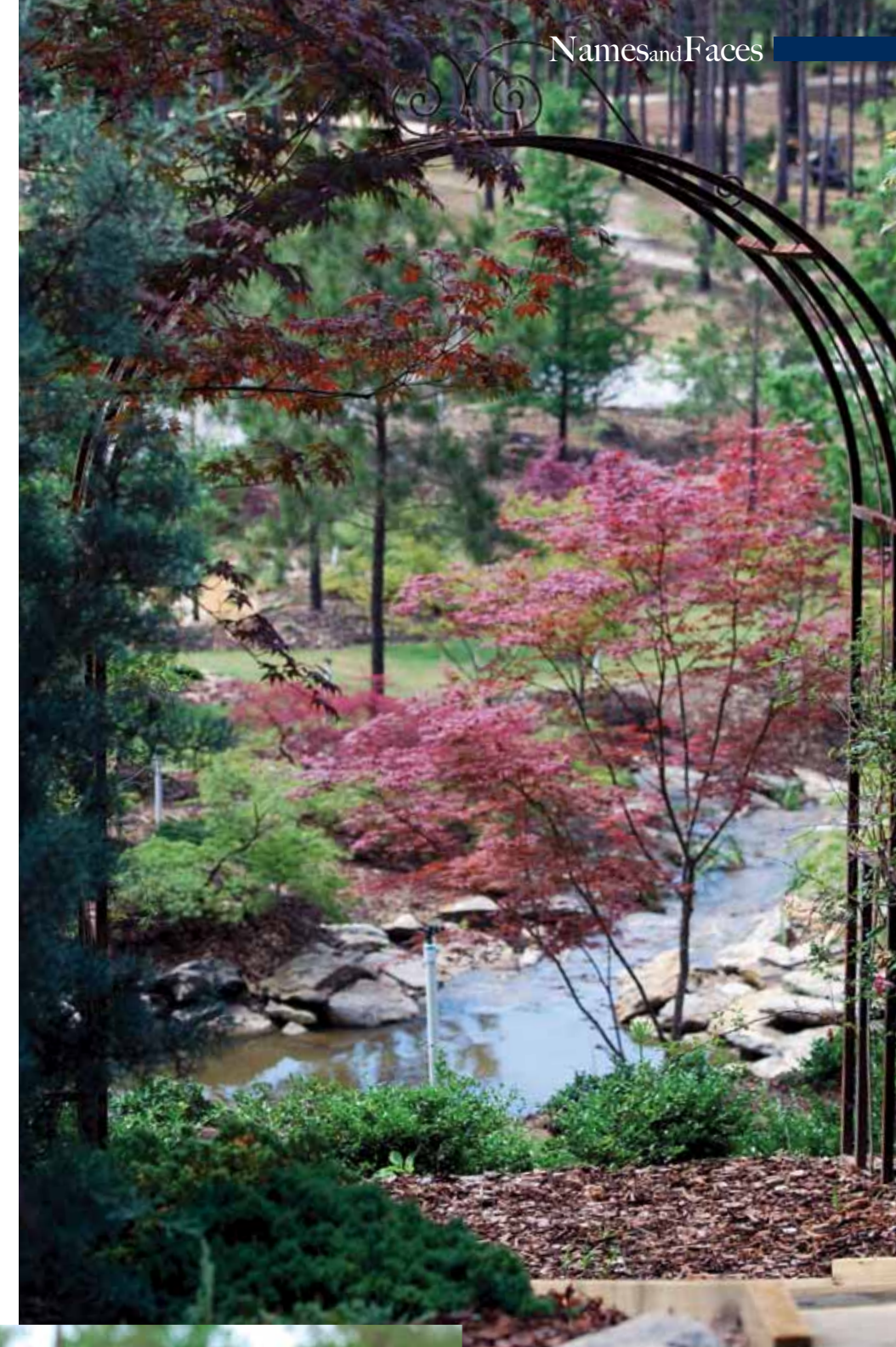
Teel almost skipped the field trip that day but, since Teel's favorite plant is the Japanese maple, he decided to go along. During the visit, Dye asked if any of the students had experience grafting Japanese maples. Teel was the only one to raise his hand.

A few days later Dye was on the phone getting "scouting" reports on Teel from Sibley and his fellow horticulture professor, Charles Gilliam. Soon after, Dye offered Teel the position of manager at Quail Hollow's nursery, a job Teel started in mid-December of 2009, two semesters before he actually graduated.

Dye's own interest in Japanese maples began more than a decade ago when he fell in love with a particular Japanese maple tree planted at his house in Auburn. Dye began collecting various Japanese maple cultivars and compiled quite an inventory of trees, which evolved into the foundation of Quail Hollow's garden and nursery stock.

The nursery and gardens, which officially opened in May 2010, were carved out of what was a privet- and honeysuckle-covered hillside at Crooked Oaks, a breathtaking space that is now home to about 10,000 trees representing some 100 cultivars.

Though the garden area is still being developed, it has become a popular site for weddings and other special events, and even eventful moments, such as marriage proposals. This past June, Teel proposed to his long-time girlfriend, Brittany Langley, a biomedical sciences student at Auburn who is also from Andalusia, in those very gardens.



WINNING TEAM—Casey Teel, left, a recent graduate of the Department of Horticulture, is manager of Quail Hollow Gardens, a Japanese maple showplace and nursery in Macon County, and owned by former Auburn football coach Pat Dye, right, and Dye's partner in life and business, Nancy McDonald. Though it has been open less than a year, Quail Hollow is already garnering lots of business and the gardens, which include a 250-yard water feature, are fast becoming a place for weddings, special events and even some marriage proposals. Teel proposed to his own girlfriend under the gardens' arbor, top photo, this past summer. She did, by the way, say yes.

Teel invited Langley out to Quail Hollow on the pretext of showing her a new lighting system in the gardens, which at first appeared to be lighted Tiki Torches that Teel had placed throughout the landscape. After serving Langley her favorite dinner, complete with a glass of Dom Perignon champagne ("I wanted to do it right," says Teel), the couple strolled to the arbor located at the top of the garden hillside. Teel clicked on his iPod, loaded with the couple's favorite Brad Paisley song, and flipped a switch. A floating light show appeared on the pond spelling out "Will you marry me?"

After a moment of happy tears, Langley said yes. The couple is planning a September 2011 wedding.

In the meantime, however, Teel has his hands full at Quail Hollow. Though Dye and McDonald guide every step of the operation,

Teel faithfully applies his own personal work ethic to the project with Dye's blessing. "Coach told me that this (Quail Hollow) was my project and that if it became anything, it was because I did it," he says.

Teel hopes to increase their inventory to 15,000 trees and become the largest and most price-competitive Japanese maple nursery in the Southeast. He also hopes to someday offer a full landscaping service to their customers.

"We want to be number one," Teel says, a goal that is the perfect match for this Japanese maple-loving team. **CS**



AMAZING EXPERIENCES—Clark Roper and Emily Brennan had not necessarily set their sights on international travel, but when the chance came in August for them to go on a 17-day trip to Taiwan to learn about that country's agricultural system, they did not hesitate. The two, who were sponsored by Alabama Congressman Bobby Bright's office, say the trip opened their eyes not only to how agriculture works in other countries but also to the joys of making friends and hearing views of others from across the world. The details of their story, which includes teaching their Taiwanese hosts how to make Smores, can be read at www.ag.auburn.edu/adm/student/stories.



SHON SUPPORT—Animal sciences major Josiah Greene, left, presents a flag that flew over Camp Bondsteel in Kosovo to Auburn Tigers football signee Shon Coleman when the two met for the first time before the Clemson game Sept. 18. Coleman was diagnosed with cancer shortly after signing; Greene, serving in Kosovo at the time as a U.S. Army Reserve sergeant, wanted to rally the Auburn family around Coleman and, from Kosovo, established the Shon Coleman Tribute Fund at St. Jude. (For that story, go to ag.auburn.edu/agillustrated, click on Past Issues, then August 2010: Vol. 7, Number 4.) The fund, which honors Coleman and supports cancer research, topped its \$20,000 goal the morning of the Clemson game, with 329 donations from 21 states. The new goal's \$30,000; donate online at stj.convio.net/goto/wareagleshon. Thanks to St. Jude, the 6-foot 7-inch Coleman is now cancer-free and hopes to go through spring training with his fellow Auburn Tigers.

Record-Breaking Enrollments for the College of Ag

by PAUL M. PATTERSON, ASSOCIATE DEAN FOR INSTRUCTION

Fall 2010 enrollment for the College of Agriculture reached record levels and resumed the long-term upward trend that began in 2000.

Though final statistics have not been released, preliminary fall enrollment figures place the college at 1,237, including a record 972 undergraduate students and 265 graduate students. Of these,

broader economy has not improved substantially since last fall and the national unemployment rate hovers at about 9.6 percent, enrollment growth has recovered as families with college-going students have figured out ways to pay for college even in the depressed economy and have adjusted to some of the early shocks the recession brought in 2009. Students may also have decided that enrollment in college is one of the best things they can do during a recession, since job opportunities are scarce, particularly for individuals with only a high-school diploma.

Enrollment growth in Auburn's College of Agriculture may also be due to our targeted attempts to promote student enrollment. Historically, the percentage of students who enrolled in the college after being accepted to Auburn University was only about 35 percent. Because today's students have many options on which college to attend, they often select institutions other than Auburn for a variety of reasons.

In fall 2010, however, the college's acceptance-to-enrollment rate increased to 42 percent, which may be the result of the college's active campaign using letters, e-mails and telephone calls during the recruitment period to reassure accepted students that our college is the place for them.

Not only has total enrollment grown, but the measured performance of the incoming students has improved. Preliminary data shows that the average ACT score of incoming freshmen in

the College of Agriculture has increased from 25.4 to 25.67, while the average high-school GPA has increased from 3.70 to 3.71. These increases reflect a university-wide trend.

Demographically, the college is also becoming more diverse. Of the 2010 incoming freshmen, 3.2 percent are African American and 1.8 percent are Hispanic. This compares to an undergraduate population in fall 2009 that was 2.4 percent African American and 1.4 percent Hispanic. Interestingly, the incoming freshmen are 62.4 percent women, moving the college toward greater balance in gender. In fall 2009, the college was 51 percent male.

The college's largest department is animal sciences, with 478 total students, followed by horticulture with 208 total students and agricultural economics and rural sociology with 191 students. The Department of Fisheries and Allied Aquacultures has the largest graduate program, with 75 students; agricultural economics and rural sociology is second with 44 graduate students.

We in the College of Agriculture believe that enrollment growth in the agricultural disciplines is important. A recent study suggested that more than 50,000 jobs per year will open over the next five years in the food and agricultural sector. One of the factors fueling this job growth is the expected number of baby-boomer retirements in this sector, which means that Auburn and colleges of agriculture nationwide must produce new talent for the workforce.

The agricultural sector has also remained strong through this recession. For instance, while the Dow Jones Industrial Average has exhibited lackluster performance over the past year, commodity prices are up, as well as earnings by agribusiness firms. Provided that the economy does not dip into further recession, it is anticipated that the agricultural sector will remain strong in the near term.

The other factor fueling future job growth and the need for enrollment growth in agriculture is the increasing global demand for food and fiber. World population is expected to increase by about 32 percent during the next 30 years. This will occur with no likely increase in cropland coupled with a likely degradation of our water resources. So, there is a tremendous need to develop future scientists who will take on this global challenge.

The College of Agriculture is committed to increasing enrollment growth to meet future industry demands and global needs.

Faculty and Staff Accomplishments

David Held, assistant professor of entomology and plant pathology, along with a professor in Auburn's materials engineering department, received a \$1.2-million grant from USDA's National Institute of Food and Agriculture to study technologies to control of invasive ambrosia beetles in commercial nurseries.

Auburn entomology professor **Nannan Liu** was awarded a \$418,250 grant by the National Institutes of Health's National Institute of Allergy and Infectious Diseases to continue her research on insecticide-resistant mosquitoes. The new grant comes on the heels of a \$401,500 NIH grant she received for her resistance research in 2009, bringing the total to \$819,750. The new NIH grant, along with support through the Alabama Agricultural Experiment Station's Hatch/Multistate Funding Program, will help Liu develop novel strategies to control mosquitoes that are unaffected by insecticides and to prevent new generations from becoming resistant.



Beth Guertal and sons

Beth Guertal, professor of agronomy and soils, has been named the 2011 Leischuck Undergraduate Teaching Award winner. Guertal is spending this semester as a Fulbright scholar on the island of Mauritius and is writing a blog about her experiences there. Go to bama.mauritius.blogspot.com to read about her escapades.

Curtis Jolly, chair of the Department of Agricultural Economics and Rural Sociology, was named as one of two recipients of the inaugural Charles W. Barkley Endowed Professorships. The professorships, endowed by former Auburn basketball champion Charles Barkley, support underrepresented faculty who have attained the rank of full professor, have excelled in their teaching, research and service efforts and have demonstrated a strong commitment to promote diversity among students and faculty.

A team of Auburn University researchers that includes fisheries and allied aquacultures assistant professor **Alan Wilson** was awarded a \$100,002 National Science Foundation instrumentation grant to purchase a water analysis system that will be used to study the effects of the Deepwater Horizon oil spill on coastal ecosystems.

Nada K. Nadarajah, research fellow in animal sciences, was an invited speaker at the National Goat Conference to be held in Tallahassee, Fla., in September. He spoke on genetic improvement of goats for meat production now and in the future.



MISSION ACCOMPLISHED—Gary Mullen, entomology professor emeritus in the College of Agriculture, autographs a copy of his newly published book "Phillip Henry Gosse: Science and Art in Letters from Alabama and Entomologia Alabamensis" during a book-signing event held in late September at Auburn University's Jule Collins Smith Museum of Fine Art. Gosse was a British naturalist who visited west-central Alabama in 1838 and recorded his studies of local insect life in highly detailed watercolor drawings. The new 144-page hardback—which Mullen co-authored with Taylor Littleton, Mosley Professor of Science and Humanities emeritus—features full-sized, full-color reproductions of 57 of the 200 elaborate illustrations of Alabama insects in Gosse's sketchbook. The book opens with a Mullen-penned biography of Gosse. As an entomologist, Mullen became fascinated by Gosse several years ago and since has devoted hundreds of hours to research on Gosse in both the U.S. and Gosse's homeland. The new book, which critics have called "an important contribution to the history of American science," sells for \$29.95 either online or in the Auburn museum's gift shop. For more on Mullen's quest, go to ag.auburn.edu/agillustrated and click on Past Issues, Spring Issue: Vol. 4, Number 3.

Student Accomplishments



Andrew Gascho Landis

Andrew Gascho Landis, a Ph.D. student in Auburn's Department of Fisheries and Allied Aquacultures working under the supervision of FAA assistant professor **Jim Stoeckel**, won the Grand Prize and \$6,000 in the 2010 Future of Southern Agriculture Student Essay Contest with his entry addressing the topic of water conservation and how farmers in the Southeast can manage their water resources more effectively. The contest is cosponsored by Syngenta Crop Protection and Farm Press.

Zachary Berry, **Nicole Garcia**, **Ladarius Lane** and **Lynn Leedhanchoke**, all College of Ag students majoring in animal sciences-pre vet, have been selected as USDA National Institute of Food and Agriculture Multicultural Scholars in Pre-Veterinary Medicine. The program provides advanced learning experiences to minority scholars enrolled in pre-veterinary medicine in the College of Agriculture. The students will serve as multicultural scholars for the next six semesters and in that capacity will meet with scholars, participate in the MANNRS student organization, attend recruitment trips for the college and have access to supplemental learning experiences, receive mentoring by College of Ag professors and participate in field trips. MSP Scholars each receive an annual award of \$4,500 toward tuition and \$1,500 to supplement other costs of education, such as books and fees. Funding for the scholars is provided by a USDA NIFA Higher Education Program grant with support from Auburn's College of Agriculture and Office of Diversity and Multicultural Affairs.

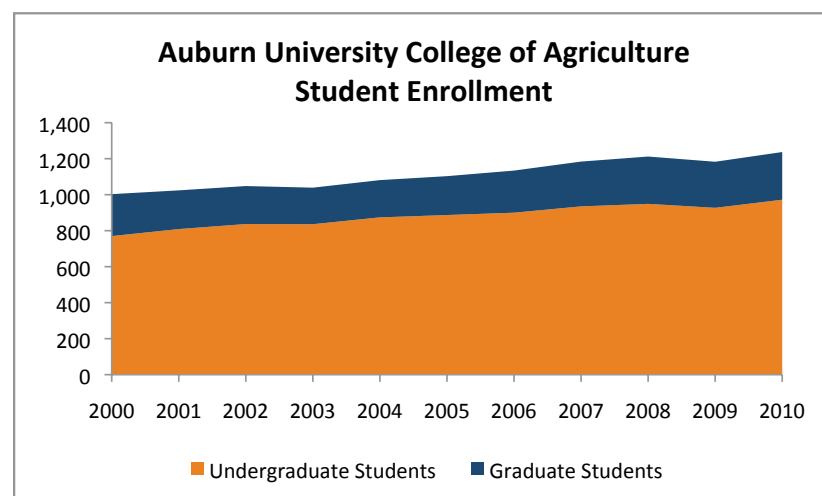
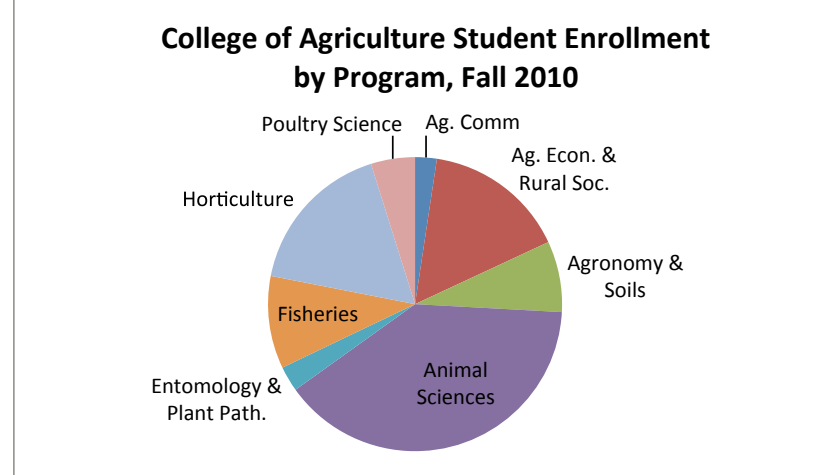
Jay McCurdy, a Ph.D. student in the Department of Agronomy and Soils working under the direction of agronomy and soils assistant professor **Scott McElroy**, is among the top-ranked men in the Southeast Collegiate Triathlon Conference standings. Look for more in upcoming issues of Ag Illustrated.



SOUTHERN STADIUM VISITORS—Auburn University played host to 10 Argentine golf course superintendents in August. The group visited Auburn as part of an educational research tour in South Carolina, Georgia and Alabama to learn more about new research in turfgrass management. Beth Guertal, professor of agronomy and soils, initially arranged the visit following a trip she took to Argentina last year. Assistant agronomy and soils professor Scott McElroy took over planning for the tour with assistance from agronomy and soils professor Harold Walker and Jim Harris, superintendent of the Turfgrass Research Unit, as well as agronomy and soils graduate students Jared Hoyle and Caleb Bristow. Among the activities the visitors enjoyed was a tour of Jordan-Hare football stadium.

College of Ag Student Blog Launches

The Office of Ag Communications and Marketing in collaboration with the Ag Communicators of Tomorrow has launched a student blogging site titled "AGazine...news from, by and about College of Ag Students." Bloggers are primarily Ag Communications majors, all of whom have a passion for agriculture and want to share those ideas and experiences with the public. Blog entries include events on campus, current agricultural issues and memories of past agricultural experiences. There are also occasional photos posted with the entries. AGazine can be found online at <http://wp.auburn.edu/AGazine>. For more about the blog, e-mail agcomm@auburn.edu.



221 are new freshmen, another record, and 81 are transfer students from community colleges, a number consistent with historic levels. These figures reverse a fall 2009 enrollment dip to 1,183, which was down from 1,212 in fall 2008.

The drop in enrollment in fall 2009 was most likely due to the recession. While the

Anticipating Change

Fond Memories, Great Results

McDaniel Retires from Gulf Coast REC, But Continues to Look Ahead by KATIE JACKSON

For the past 40 years, Ronnie McDaniel has been anticipating and responding to changes in agriculture. These days, he's anticipating more time for his family and personal projects, but the future of Gulf Coast agriculture is never far from his thoughts.

McDaniel retired in July as director of the Gulf Coast Research and Extension Center in Fairhope, one of 14 Alabama Agricultural Experiment Station research facilities located across the state. It was on this 800-acre Baldwin County farm that McDaniel reared his family and spent almost four decades in service to Auburn University and Alabama's farmers.

McDaniel grew up in Robertsedale, just a few miles away from the research farm, on a small family dairy and row crop farm. He left Baldwin County at the age of 17 to attend college at Auburn, and, after earning a bachelor's degree in agricultural administration and a master's degree in agricultural economics, he began to look for a job.



HOME ON THE CENTER—Ronnie McDaniel and his wife, Mary Caroline, reared their children and spent much of their married life at the Gulf Coast Research and Extension Center in Fairhope. He went to work there in 1969 as an assistant superintendent and was named director in 1997, a position he held until his retirement this past July.

He took a job in Chilton County working with Chick Carlton, then-superintendent of the Chilton Substation (now Chilton Research and Extension Center), who "took a liking to me," says McDaniel.

Carlton taught McDaniel the ins and outs of conducting research and outreach activities to benefit Alabama farmers. He also taught McDaniel a few things about growing peaches, which came in handy later in McDaniel's career.

However, just a year or so after getting to Clanton, the opportunity to move back to Baldwin County presented itself.

Harold Yates, superintendent of the Gulf Coast Substation in Fairhope at the time, had rejuvenated the station's dairy, and McDaniel, with his dairy farm background, was a perfect choice to run it.

At the time—1969—there were more than 100 dairies in Baldwin County, so research at the station's dairy was vital to local farmers. However, less than 20 years later, dairy farm numbers in the region and across the state had dwindled so low that the dairy unit was closed.

"I thought I would miss those cows because I had been raised with them and worked with them, but it only took me about two days to not miss them," McDaniel says.

Plus, McDaniel and his fellow staff members at the station were busy with myriad other projects, all aimed at addressing the needs of local farmers.

McDaniel worked with Yates, then Bill Barrett and finally Emmet Cardin before he was named GCREC superintendent (now called "director") in June 1997 following Cardin's retirement.

During his years at GCREC, McDaniel saw farming practices change drastically—from lots of labor-intensive hand planting and harvesting to today's highly mechanized, high-tech equipment. He also saw crops cycle in and out of popularity. Studies at the station have looked at everything from satsumas, pecans, potatoes, thornless blackberries, kiwifruit, ornamental trees, crape myrtles, turfgrass and sweet corn to beef cattle, soybeans, corn, cotton and peanuts, to name a few.

The station is credited with rejuvenating the satsuma industry in the Gulf Coast area, and McDaniel even helped establish a peach industry there as well.


"Peaches are one of the hardest crops I have worked with, but we showed we could grow them here," he says, crediting Carlton with teaching him the foundations of good peach production.

McDaniel says each of these studies had one common goal: "You want to do good, accurate research and have good communications with your project leaders and your farmers," says McDaniel. "That's the secret to it."

The result is exceptional, science-based answers to questions from producers. "If you've done the research and can feel comfortable telling them something will work, that is a satisfying situation," he says.

While McDaniel will miss his work at the center and the people there, he knows he is leaving it in good hands with the current staff, including interim director Malcomb Pegues.

He also hopes that the center long remains a part of the local community, despite the astounding urbanization of the area. "There is still a lot of agriculture in Baldwin County," he says. "Farm numbers have decreased, but the ones we have are topnotch."

"I've told everyone that the center needs to be here from now on. We have 800 acres in the middle of all this development. That's the same number of acres in Central Park, so it may someday be the Central Park of Baldwin County," he adds. 

World's Largest Soils Lab Turns 75

The U.S. Department of Agriculture's National Soil Dynamics Laboratory is celebrating 75 years of service this November, a birthday that highlights a wide range of advances for agriculture.

"In the early 1920s and 1930s, research on interactions of machines and soil was being conducted at Alabama Polytechnic Institute, now known as Auburn University," says Allen Torbert, a soil scientist and current director of the National Soil Dynamics Laboratory.

As this research program developed, it became evident that it was difficult to determine the effect of isolated machine components on the forces and soil reactions that occur under field conditions. So, a laboratory with large outdoor soil bins equipped with special measuring equipment was needed to continue the research on full-scale machines.

To meet that need, USDA built the Farm Tillage Machinery Laboratory on the campus of Auburn University between 1933 and 1934. It included 13 soil bins, measuring 249 feet long by 23 feet wide, which were first used in 1935.

In its first 50 years, the laboratory contributed to the understanding of soil compaction and its management, parameters governing the effectiveness of tillage tools, the interaction of traction devices and soils and principles of controlled traffic. Scientists at the lab also contributed to improving military tire designs in support of World War II efforts.

During the 1940s, USDA established a Soil-Plant Interactions Research Unit at Auburn University for research on soil fertility and crop production. This research unit was responsible for building the rhizotron on the Auburn campus, a structure built into the ground that had very large windows to allow for root observation and study while the plants were growing.

In the 1960s, laboratory personnel also helped in the design of a "sea plow" used to bury transatlantic ocean communication cables. The discipline of soil dynamics grew out of this diverse research, as outlined in the book "Soil Dynamics in Tillage and Traction", written by two lab researchers and published in 1967.

Since 1953, when USDA created the Agricultural Research Service, the units have been operated by ARS and were merged to become the USDA-ARS National Soil Dynamics Laboratory in 1985, with the current mission focus-

ing on relating soil dynamics to sustainable and profitable farm production.

As the years passed, the laboratory progressed from its emphasis on soil-machine interactions to its current structure of three research areas: conservation systems, global change and waste management.

In 1990, the laboratory was designated a historic landmark by the American Society of Mechanical Engineers and the American Society of Agricultural Engineers. The designation honored the National Soil Dynamics Laboratory as the "world's first full-size laboratory for tillage tools and traction equipment in all types of soils."

Today, the historic bins are used for many different purposes as researchers respond to modern issues, such as the first long-term study comparing tillage practices under high atmospheric carbon dioxide levels.

"We see this recognition of the 75th anniversary of the laboratory as an opportunity to inform stakeholders, cooperators and the public about the numerous accomplishments of the past 75 years conducted at the NSDL, and to look forward to continuing research on future concerns of farmers," says Torbert.

An official celebration will be held Nov. 18 at the laboratory. More information on that event is available in the Ag Illustrated Calendar of Events.

Plant Phenology To Help Horticultural Pros Nip Pest Problems in the Bud

by JAMIE CREAMER

Auburn University researchers are using an ancient science to develop a practical tool that will help Alabama nursery and landscape professionals monitor and control damaging insect pests more efficiently and effectively. The valuable new resource: Alabama's first-ever phenology calendar of landscape plants and pests.

By referring to the online calendar, pest managers in commercial horticulture operations will find that keeping a close eye on the flowering stages of several specific plants is a sure-fire way to nip insect problems in the bud.

"Detecting pests early gives the nursery or landscape managers time to control them before they can do major damage, and that can significantly reduce the need for pesticides then and later on," says David Held, Auburn assistant professor of entomology and leader of the phenology project. "The phenology calendar will correlate the bloom phases of several specific sentinel plants with the developmental stages of key ornamental-plant pests, and horticulturists throughout the state can use that information to guide their pest management decisions and use insecticides more judiciously."

Phenology is the study of naturally recurring events in plants' and animals' life cycles and how seasonal variations in weather, especially temperatures, affect the timing of those events. Over the next two years, Held and graduate research assistant Ray Young, with the help of Master Gardener volunteers, will be amassing mammoth amounts



UP FOR INSPECTION—Auburn entomologist David Held, left, and graduate student Ray Young check out one of the insect traps at the Auburn phenology research garden. When Held's current two-year project wraps up, the gardens will remain for ongoing research and as outdoor classrooms where people can learn how to apply plant phenology to pest management. Held wants to expand Alabama's data to the southern region and already has formed a regional working group that includes Alabama and six other states.

of data they expect will show that using plant phenology is a reliable way to predict insect activity.

They are conducting their research in what Held calls "living laboratories"—five almost-half-acre phenology gardens they have established across the state. One garden is located on the Auburn campus; the others at the Huntsville

Viruses, Good Bacteria Could Protect Catfish from ESC

by JAMIE CREAMER

It won't be a silver bullet, but new technology being developed and tested at Auburn University may help protect pond-raised catfish from enteric septicemia, a deadly infectious bacterial disease.

The disease, known as ESC, is caused by the bacterium *Edwardsiella ictaluri*. Auburn scientists discovered ESC, as well as the causal pathogen, in 1976 in sick-fish samples from catfish ponds in Alabama and Georgia. The disease began to spread in earnest throughout the catfish industry in the '80s; today, ESC costs the industry as much as \$60 million annually.

In recent years, control strategies such as antibiotics and vaccines have hit the market, but their effectiveness is inconsistent and the costs are prohibitive for some catfish growers. And besides, consumers are increasingly calling for a reduction of antibiotic use in livestock production.

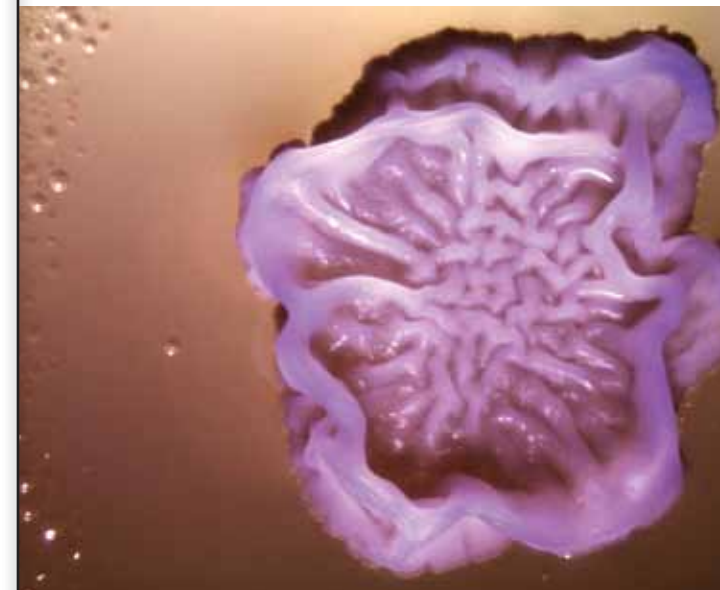
The aim of the Auburn research project is to find an effective and affordable means of controlling and preventing the disease biologically. The research team, led by aquaculture epidemiologist Jeff Terhune in the Department of Fisheries and Allied Aquacultures and environmental microbiologist Mark Liles in the Department of Biological Sciences, is developing naturally occurring microorganisms—specifically, viruses and probiotic bacteria—that work as biological control agents to reduce the numbers of ESC-causing bacteria in catfish producers' ponds.

The viruses, known as bacteriophages, are naturally occurring microorganisms that attack and destroy specific bacteria, all the while using the energy of the bacteria to rapidly reproduce themselves. Phages specific to *E. ictaluri*, for instance, don't prey on any other bacteria, and the phage approach to preventing ESC is completely safe for the catfish and for human consumers.

The researchers have met with success in the first phases of the project.

"To date, we have isolated three specific phages and 25 beneficial bacteria," says Terhune. "These can easily be reproduced in a lab, and our work now is focusing on improving their ability to kill the bacteria that cause ESC."

The research team also is investigating various dosage levels of phage and application techniques to determine the most cost-effective strategy for catfish producers who use the biological control method.



THE BIG PICTURE—This photo, courtesy of Auburn environmental microbiologist Mark Liles, shows a beneficial bacterium, in the back, attacking a bacterium that causes disease in farm-raised channel catfish. This beneficial bacterium is one of 25 that Auburn scientists have identified as natural enemies of disease-causing bacteria in commercial catfish ponds. The photo was taken at 10 times magnification under a digital dissecting microscope.

and Mobile botanical gardens, the Wiregrass Research and Extension Center in Headland and Oak Mountain Middle School in Birmingham.

The same 13 species of familiar flowering plants are planted in every garden, including crape myrtle, hydrangea, camellia, forsythia, sunflower, cherry, loropetalum, liriope, daylily, daffodil, clethra, Indian hawthorn and goldenrod. Held says these "indicator" plants were selected because they provide a continuum of highly visible blooms from January through November.

Pest management is challenging in nurseries and urban landscapes largely because of the diversity of shrubs, flowers and trees they contain and, subsequently, the diversity of pests they attract. Traditionally, many have applied pesticides based on either calendar dates—not advisable—or degree days, which, to be most accurate, must be calculated based on local data.

Regular and frequent scouting is an effective way to detect insects in their most susceptible stages, but in sizable operations or landscapes, the time and labor involved in such close inspections is prohibitive.

The online plant phenology calendar has the potential to improve pest management programs not only for the nursery and landscape industries but for homeowners as well, Held says. The five research gardens will also be used as outdoor classrooms to train and educate both pros and amateurs on the principles of applying phenology to pest management. More about the phenology project is available at ag.auburn.edu/phenology.



PROPER PROPAGATION—Rachel Meriwether, a graduate research assistant working under the direction of Auburn horticulture associate professor Amy Wright, adjusts a cutting from a fruit-producing species of cactus in a greenhouse on the Auburn campus. The cactus bed is part of a study Wright is leading to determine the fastest and simplest ways to propagate not only the cactus but uncommon water lily and palm species as well. The three select species are being grown from seeds and from cuttings. Wright and Meriwether, who are working with Northern University of Costa Rica faculty in the study, aim to establish propagation protocols for the three species, all of which are native to Costa Rica, and then to teach small-scale farmers in the economically stressed Costa Rican village of Caño Negro how to successfully propagate and produce the plants to sell on both the ornamental and fruit markets. The plants also could be used to restore the ecosystem that many residents fear is being harmed by an influx of large fruit companies that are using the land for pineapple production. The ultimate goal of the project is to stimulate the Caño Negro economy, but Wright says the findings also will be significant to general science, as there is little to no published research on the propagation of these exact species.

College of Human Sciences

Summer Camp Teaches Kids to Give Back

While a summer camp promoting financial and philanthropic responsibility doesn't fit the mold of a typical children's camp, Camp iCare, held for the first time in summer 2010, was by all measures a huge success.

During the week-long camp, 22 children ranging from grades 1 to 6 heard from philanthropists, participated in multiple service-learning projects and held discussions with community and philanthropic leaders. They also worked to identify their own values, vision and ways they could make a positive change in the world.



"This camp gave our campers the tools they need to give back to our community," says Sharon Wilbanks, director of Auburn University's Early Learning Center, one of the camp's cosponsors along with the Women's Philanthropy Board and the Department of Human Development and Family Studies.

Volunteer Kelly Roper Martin, a former WPB scholarship recipient and alumna of the College of Human Sciences, knows Camp iCare made a difference in the lives of the children who attended: One of her campers decided to ask for donations to a local humane shelter rather than birthday gifts this year.

"Children are naturally giving," says Sidney James, director of the WPB and instructor of outreach. "The idea behind Camp iCare was to inspire them to be financially responsible and good stewards of their resources no matter how limited or abundant."

Plans are already under way to offer a similar camp in summer 2011.

School of Forestry and Wildlife Sciences

Assessing State's Biodiversity



FILLING IN THE GAP—SFWS students help identify plant communities and common animal species not adequately represented on existing conservation land in order to complete the Gap Analysis Program—a U.S. Geological Survey program working to "keep common species common." Common species are those not threatened with extinction.

State and federal agencies, wildlife managers and policy-makers now have one more tool to help them make better-informed decisions about wildlife conservation and management. That tool is the Alabama Gap Analysis Program, or ALGAP, a comprehensive data set/map showing distribution of plant and animal communities across the state, location of public lands and types of land cover.

GAP analysis for Alabama was recently completed by a team of scientists, including faculty and graduate students in the School of Forestry and Wildlife Sciences and the College of Agriculture's Department of Fisheries and Allied Aquacultures; members of the Alabama Cooperative Fish and Wildlife Research Unit, which is cooperatively supported by Auburn University, U.S. Geological Survey and Alabama Department of Conservation and Natural Resources. Researchers at North

Carolina State University and the University of Georgia are working on the larger southeast regional project.

The ALGAP team used satellite imagery and Geographic Information Systems to identify and map more than 70 land-cover types and habitat for 368 wildlife species, including 155-plus birds, 56 mammals, 65 amphibians and 89 reptiles. Also, the team produced the most up-to-date and accurate electronic maps of public lands and land trusts available. ALGAP data are available for download from the Alabama Cooperative Fish and Wildlife Research Unit website, ag.auburn.edu/alcfwru, or the national GAP website, gapanalysis.nh.gov.

GAP projects have been conducted across the nation with funding from the U.S. Geological Survey to promote cooperative efforts to use spatial data to maintain wildlife and their habitats and avoid costly or extraordinary efforts to conserve or restore wildlife populations.



MARKING THE SPOT—A not-so-common site on the beaches of the Gulf Coast this summer is this glob of oil, circled and measured here as part of a National Science Foundation-funded Rapid Response Research award. Professors in COSAM and the College of Ag were recent recipients of RAPID awards, which are given for response to unusual circumstances where a timely award is essential to achieving research results.

College of Sciences and Mathematics

Faculty Awarded NSF Monies in Response to Oil Spill

The National Science Foundation recently awarded several College of Sciences and Mathematics faculty members Rapid Response Research awards in response to the Gulf oil spill. RAPID awards are a special grant mechanism developed specifically for response to unusual circumstances where a timely award is essential to achieving research results.

Anthony Moss, associate professor in biological sciences, received more than \$100,000 for his project at Auburn's new Magnetic Resonance Imaging Research Center. Moss and team members Kenneth Halanych, alumni professor, and Mark Liles, assistant professor, both from biological sciences, and Alan Wilson, assistant professor in fisheries and allied aquacultures in the College of Agriculture, will use the funds for a FlowCAM. That is a water analysis system used to examine how long oil droplets persist in the water column, to what degree organisms accumulate oil into lipid-rich regions of the body, both initially and thereafter and the effect of the oil on invertebrate larval populations.

Ming-Kuo Lee, professor in geology and geography, received an award of \$34,083 along with team members James Saunders, also a professor in geology and geography, and Ben Okeke from Auburn University at Montgomery. They are collaborating with Vassar College to investigate the effects of the oil spill on the coastal wetlands. Long after the more obvious signs of the spill have been cleaned up, the total organic matter content of the waters and surrounding ecosystems will be increased.

College of Veterinary Medicine

Society for Theriogenology Honors Carson



Robert Carson

Robert L. Carson, clinical sciences professor in AU'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 2010 annual conference in September. Theriogenology is the veterinary specialty that deals with animal reproduction, and Carson's impact on that dimension of the veterinary profession has been far reaching.

A graduate of the AU's College of Veterinary Medicine, Carson joined the faculty in 1978. He has taught theriogenology and reproductive systems courses and served as a long-time member of the admissions and curriculum committees.

During his early years at Auburn, Carson worked with senior theriogenologists Don Walker and Robert Hudson and after their retirement carried on clinical and research accomplishments in bovine reproduction. Carson's research continues to concentrate on bovine theriogenology, both male and female, with an interest in equine theriogenology and production medicine involving cow and dairy herds.

Carson has served the cattle industry in Alabama and the Southeast in leadership positions and as a participant in the business of raising and marketing beef cattle.

The David E. Bartlett Award is named in honor of the veterinarian who helped coin theriogenology, the word, and founded the American College of Theriogenologists.

Oil Spill Challenges Extension Response Efforts

Jim Todd remembers Hurricane Katrina and other storms that battered Mobile in the past. As the county coordinator for the Mobile County office of the Alabama Cooperative Extension System, he led Extension's response to these disasters.

"We had direct impacts—damage to homes, field crops that were damaged, saltwater incursion into commercial nurseries," Todd says. "Our immediate role was to help assess that damage, particularly damage to agriculture. Then in the aftermath, we were an important resource for all types of information from proper cleaning to stress management to budgeting."

But he says the Deepwater Horizon oil spill in the Gulf of Mexico is different from the natural disasters to which he and his Extension colleagues are accustomed.

"We didn't have past experiences with this type of disaster to know just what would be needed," he says. "With storms, we have hands-on knowledge that has allowed us to pre-position information materials and to plan programs and responses before the storm reaches land."

Instead, Todd says, Extension professionals along the Gulf Coast took time following the rig's explosion to talk with and listen to citizens, from shrimp boat operators and restaurant owners to homeowners and elected officials.

"This enabled us to develop worst-case scenarios and analyze what their needs would be," Todd says. "That analysis continues. We are letting people know what information we have and how we can help. But we are also identifying areas where we need to create new resources."

ACES subject-matter specialists and agents who work in the AU Marine Extension and Research Center, the Baldwin County Extension office and the Mobile County Extension office have led the program response to the oil spill. The AU Marine Extension and Research Center, led by LaDon Swann, has coordinated the majority of this work. Todd and Baldwin County coordinator Susan Wingard have led local response efforts that focus more on human impacts.

Paul Brown, Extension associate director for rural and traditional programs, says Extension's long-time presence and organizational structure are critical elements in effective program response.

"By using Extension professionals based on the Gulf Coast, we could move quickly after the initial needs analysis because our educators and scientists have long-established and -respected relationships with the seafood industry, environmental interests, governments and leaders in the area."

Though the oil well has been capped, Brown says Extension professionals know there will be work for some time to come, adding, "County staff as well as Extension professionals with the Auburn University Marine Extension and Research Center and across the state are poised to work on both the short- and long-term impacts of this spill."

Stay Connected

For the most up-to-date information on the Alabama Cooperative Extension System, bookmark its website, www.aces.edu, and follow it on Twitter @ACESedu and on the Alabama Cooperative Extension System page on Facebook.

4-H'er Reigning Champ of National Cornbread Cook-off



CAST-IRON CHEF—Straughn Elementary School student Gordie Cartwright holds the Lodge cast-iron skillet that was among his earnings as winner of the 4-H National Cornbread Cook-off. With Cartwright is Covington County 4-H agent assistant Tanya Bales.

A national champion walks the halls of Covington County's Straughn Elementary School. His name is Gordie Cartwright, winner of the 2010 National 4-H Cornbread Cook-off Contest held this past summer in South Pittsburg, Tenn., as part of the National Cornbread Festival.

The 10-year-old 4-H'er from Gantt beat out almost 200 fellow fourth-grade 4-H'ers from across the nation with his cinnamon-spiced Sweet Potato Cornbread, a recipe he created shortly after learning of the cook-off from Tanya Bales, 4-H agent assistant at Straughn.

"I'd never made cornbread before, but I got to thinking about it and thought I'd give it a try," he says. He saw mom eating a sweet potato at suppertime, and that was the inspiration for his recipe. "The first couple of times, it didn't taste right, but we worked on it and came up with a recipe we liked."

He sent in the recipe, and, after scrutinizing the couple of hundred recipes, the judges—cooking and cornbread professionals and 4-H staff in Tennessee—selected Cartwright's entry as one of only 10 finalists.

That meant a trip to South Pittsburg. To raise money to fund that trip, Cartwright spent more than a few Saturdays at the Tractor Supply Company store in Andalusia, offering slices of his cornbread for donations. At the cook-off, Cartwright and his nine competitors had to whip up their recipes in front of the judges and explain them.

"I wasn't too nervous when I was cooking, but the judges came up to my table, and I had to tell them what I was doing and mainly why my recipe was original," says Cartwright, whose celebrity status earned him a salute from the Covington County Commission.

The young Cartwright comes by his knack for baking naturally: His parents, Rick and Christy, are former restaurant owners and still cater occasionally. "I saw my mom and dad cooking and liked it, and they would let me help sometimes," he says.

As champion, Cartwright won \$400—more than enough to pay for that Nintendo DSI he'd had his eye on—and a gift bag of cast-iron cookware from Lodge Manufacturing as well as all manner of Martha White products.

Since the cornbread contest, Cartwright, now a fifth-grader, has won the blue ribbon and come in second at the county and regional barbecue chicken contests, respectively, and says he just might wind up entering other 4-H cooking contests, including the junior beef cook-off and Chef 4-H.

"I'm going to be the next iron chef—no, the next cast-iron chef!" he says. See Cartwright's award-winning recipe on Page 12.

Superalgae Could Be Boon to State's Economy

In the continuing quest for renewable energy sources, pond scum could be the next big thing, and that could fuel growth in Alabama's economy, says Paul Mask of the Alabama Cooperative Extension System.

Research has shown that algae—known collectively as pond scum—capture carbon dioxide and sunlight and convert it into oxygen and biomass. Algae production for energy won't be economically viable, however, unless faster-growing algae that complete the conversion process more efficiently are developed.

Developing such "superalgae" is the goal of multiple research projects across the U.S., and scientists have already made significant headway. A recent news article reports that one company has already engineered some 4,000 strains of algae using genetic techniques. A successful outcome of these efforts could have major implications not only for the nation as a whole but also for Alabama in particular, says Mask, assistant director of Extension's agricultural programs.



GROWING POTENTIAL—Catfish producers will be the first to tell you that blue-green algae thrive in their ponds in Alabama's long warm-weather season, and that could be a good thing. Development of even faster-growing algae that could be harvested for use as an energy source could make algae farming a profitable venture.

His reasoning: Algae grow in warm weather, and Alabama has an abundance of that.

"Our climate is such that we have a very long season in which algae can grow in outside ponds, and that makes us capable of producing the algae," Mask says. "On a per-acre basis, algae produce a lot more energy than any other crop."

Still, the future of algae as a viable energy source rides on whether scientists can genetically transform conventional algae into superalgae strains suitable for commercial production. Their research runs the gamut from collecting algae around the world and selecting the strains that offer the best potential for commercial growth to using genetic engineering to create algae that can be rendered more readily into biofuel.

Mask says the time is now for Alabama to develop a pilot program to determine the extent to which algae can be grown commercially in the state.

"A lot has been fleshed out on paper, but the next step is to carry algae through the entire process from producing the algae on a part-time annual basis to harvesting it and dehydrating it and converting it into energy," he says.

Climate is not the only factor that makes Alabama potentially ideally suited to commercial algae production, Mask says, pointing to the extensive professional and academic infrastructure that has evolved over the decades to support Alabama's multimillion-dollar catfish industry.

"They're very familiar with water chemistry and production techniques and all of the things that could provide producers with a lot of technical expertise to proceed with commercial algae production," he says. "If algae become a feasible energy source, we're well positioned to be a part of the process."

Calendar of Events

October • 2010

s	m	t	w	t	f	s
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
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November • 2010

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December • 2010

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25	26	27	28	29	30	31

Oct. 19-21

Sunbelt Ag Expo

Spence Field - Moultrie, Ga.

The Sunbelt Ag Expo is an annual agriculturally based trade show, known as "North America's Premier Farm Show"™ draws more than 1,200 exhibitors, including Auburn University's College of Agriculture, showcasing the latest in farming technology.

Contact: <http://sunbeltexpo.com/>

Oct. 30-31

Building Soundness from the Ground Up Equine Podiatry Weekend

College of Veterinary Medicine - Auburn

"Building Soundness from the Ground Up" will be held on the campus of the College of Veterinary Medicine at the John Thomas Vaughan Large Animal Teaching Hospital. Sessions and demonstrations include the medical and surgical management of laminitis, hoof care options for laminitis horses and the impact of shoeing on performance horses. Techniques include deep digital flexor tenotomy, equine foot MRI and field sampling and sample handling for endocrine diagnosis.

Contact: www.vetmed.auburn.edu

Nov. 4

Valentin Abe

E.T. York Distinguished Lecturer

7 p.m.

The Hotel at Auburn University and Dixon Conference Center Auditorium - Auburn

Valentin Abe, an Auburn University fisheries and allied aquacultures alumnus working to establish a fish farming industry in Haiti, will be the fall speaker for the E.T. York Distinguished Lecturer Series. He was featured in Time magazine's 2010 "100 people who most affect our world" edition and nominated for the recognition by former President Bill Clinton.

Contact: www.ag.auburn.edu/yorklecture or 334-844-2345

Nov. 6

Ag Roundup and Taste of Alabama Agriculture

9 a.m.

Ag Heritage Park - Auburn

This event, a huge tailgate party, offers food, fun, fellowship and educational opportunities. Admission is \$5; children 6 and under are admitted free. See story on Page 3.

Contact: [Elaine Rollo at rollome@auburn.edu](mailto:Elaine.Rollo@rollome.auburn.edu) or 334-844-3204

Nov. 11

7th Annual Henry P. Orr Memorial Golf Classic

9 a.m.

FarmLinks Golf Club at Pursell Farms - Fayetteville

Contact: [Katie Hardy at hardykc@auburn.edu](mailto:Katie.Hardy@hardykc.auburn.edu) or 334-844-1475

Nov. 18

75th Anniversary Celebration

1-4 p.m.

National Soil Dynamics Laboratory - Auburn

The U.S. Department of Agriculture's National Soil Dynamics Laboratory, located on the Auburn campus, is celebrating 75 years of service this November, an event that highlights the world's first full-size laboratory for tillage tools and traction equipment in all types of soils. See story on Page 8.

Contact: [Allen Torbert at torbeal@auburn.edu](mailto:Allen.Torbert@torbeal.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.

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Recipe File

Championship Cornbread

Sweet Potato Cornbread a National 4-H Winner

Straughn Elementary School student Gordie Cartwright says he made a lot of sweet potato cornbread before he found the perfect combination of ingredients he believed would wow the judges of the 2010 4-H National Cornbread Cook-off. Sure enough, they were crazy about his cornbread and awarded it first place in the cook-off, which was held this past summer during the National Cornbread Festival in South Pittsburgh, Tenn. See his story on page 11 and then give this winning recipe a try and judge for yourself.

Gordie Cartwright's Award-Winning Sweet Potato Cornbread

- 1 (7-oz.) pkg. Martha White sweet yellow cornbread mix
- 1 tsp. cinnamon
- 1/2 c. milk
- 1 c. cooked, mashed sweet potatoes*
- 1/4 c. brown sugar
- 1/4 c. melted butter
- 1 large egg
- 1 pinch nutmeg

Mix all ingredients in order. Pour into a greased cast-iron skillet and bake at 425 degrees for 20-25 minutes or until lightly browned and done.

*Cartwright suggests cooking in the microwave.

