Recipe for Success

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“No matter where you look, it seems like every plant has a story to tell—and maybe a secret history.”

NORMAN WINTER
Director of the Coastal Georgia Botanical Gardens in Savannah
There was a time, not too long ago, when having a phone in your car was a futuristic dream and people scoffed at the idea of computers small enough to fit in the palm of your hand. Today, owning a cell phone is the norm, and smartphones put making phone calls and accessing a world of information at our fingertips. Technological advancements are changing how we think, how we do business and even how we farm.

As agricultural production in the western U.S. becomes more tenuous, some of the nation’s top agricultural firms are eying the more hospitable environment and business climate found in the Southeast—especially in Georgia.

Georgia has long been a leader in agricultural technology development. From plant breeding and animal cloning to variable rate irrigation and precision farming, we’ve led the way. Now, interdisciplinary approaches that focus on developing, refining and deploying new research and technologies that help us at the intersection of the engineering and agricultural science disciplines must be a priority.

Putting aside their football rivalry, the University of Georgia and Georgia Tech have partnered with the Georgia Department of Agriculture to create a new initiative that could give our agricultural technology development the turbo charge agribusinesses are looking for when it comes to sound investments in the future of farming. The new Georgia Agritechology Innovation Initiative will use the existing strengths of our educational institutions and of the Georgia Department of Agriculture to create an interdisciplinary education and high-tech innovation conduit for addressing future challenges in food and agriculture in the state, the nation and the world.

Advanced technology will play an ever-increasing role in developing solutions to meet future food and agriculture demands of the growing world population. Georgia can lead the way with cutting-edge research, technology development and education, driving transformational innovation in modern agricultural production and food processing.

Today’s problems are more complex. The solutions require high-level, science-driven innovation. This powerful partnership of some of the best engineering minds in the world combined with our internationally renowned agricultural expertise could help Georgia explore a new frontier for feeding the world’s population and growing Georgia’s economy.

“Georgia has long been a leader in agricultural technology development. From plant breeding and animal cloning to variable rate irrigation and precision farming, we’ve led the way.”

T

from the dean

J. Scott Angle
Dean and Director
College of Agricultural and Environmental Sciences

MANAGING EDITORS
Amanda E. Swennes, Andrea Gonzalez

DESIGNER/ILLUSTRATOR
Katie Walker

COPY EDITORS
Sharon Dowdy, Kathryn Schiliro

CONTRIBUTING WRITERS
April Bailey, Sharon Dowdy, Christly Fricks, Andrea Gonzalez, Merritt Melancon, Josh Punce, Faith Peppers, Angela Rowell, Kathryn Schiliro, Amanda E. Swennes, Clint Thompson, Norman Winter

CONTRIBUTING PHOTOGRAPHERS
John Amis, Holly Brown, David Capparet, Sharon Dowdy, Paul Elford, Dan Evans, Peter Fray, Kurtis Garbutt, Heward Hackney, Kelly Hysan, Ted Mayer, Merritt Melancon, Matt Miller, Stephen Morton, Robert Newcomb, Angela Rowell, Kathryn Schiliro, Cecilia Schubert, April Sorowe, Andrew Davis Tucker, Kai Wang, Nancy Whiddon, Norman Winter

DIRECTOR
Angela Rowell
Office of Communications and Creative Services

DEAN AND DIRECTOR
J. Scott Angle
College of Agricultural and Environmental Sciences

DIRECTOR OF EXTERNAL RELATIONS
Robert Cooper
Office of External Relations

DIRECTOR OF ALUMNI RELATIONS
Juli Fields
Office of External Relations

SUGGESTIONS? QUESTIONS?
southscapes@uga.edu

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 tek

Georgia’s exports of agricultural products totaled $4.5 billion in 2013, sending Georgia-grown goods worldwide.

STILL THE KING
Cotton was Georgia’s top agricultural export in 2012, generating $968.5 million in revenue.

Georgia is the country’s No. 1 exporter of poultry and peanuts.

In 2013, Georgia’s top five export destinations for agricultural products were Canada, China, Mexico, Vietnam and the Dominican Republic.

Perentage that Georgia exports of agricultural products have increased over the past decade.

282%
Even when they’re on a rival’s field, the Georgia Bulldogs often play on home turf. In addition to Sanford Stadium, the following SEC football fields use Tifway Bermuda, a turfgrass bred on the UGA College of Agricultural and Environmental Sciences’ campus in Tifton.

Bryant-Denny Stadium, University of Alabama
Jordan-Hare Stadium, Auburn University
Commonwealth Stadium, University of Kentucky
Davis Wade Stadium, Mississippi State University
Williams-Brice Stadium, University of South Carolina
Neyland Stadium, University of Tennessee
Kyle Field, Texas A&M University

Flanker Chris Conley (31) catches a touchdown pass during Georgia’s game against Tennessee on Oct. 5, 2013, in Knoxville, Tennessee.
From the Red to the Black

Last October, non-essential federal agencies shut down after politicians couldn’t agree on how to fund them. While balancing the federal budget may seem like a nearly impossible task, a group of UGA freshmen made it happen in just one semester. Sixteen students enrolled in "Balancing the Federal Budget in Fifteen Weeks," a First-Year Odyssey class taught by Jeffrey Dorfman, a CAES professor of agricultural and applied economics, learned about the federal budget and researched and evaluated proposals on ways to balance it.

The Congressional Budget Office estimates that, for the current fiscal year, the federal government will spend $650 billion more than it makes, adding to the country’s $16 trillion debt. “[These students] realized this all actually matters to them,” Dorfman said. “It’s their money [and] they’re the ones going to get stuck with the bill.”

Applied economics students balance federal budget in one semester

Unlike existing Congressional proposals that project a balanced budget within a few years, Dorfman required his students’ ideas to reflect immediate savings. Ideas included increasing the age for Social Security eligibility to 70, decriminalizing and taxing marijuana, and cutting defense spending by 10 percent.

By the end of the semester, the students’ proposed budget projected savings of $702 billion—enough to eliminate the country’s current $650 billion debt and leave a $50 billion budget surplus. • April Bailey

For more information about Dorfman’s economics research, read his "Forbes" column at forbes.com/sites/jeffreydorfman.

Summer on the Hill

CAES students intern in D.C.

Instead of lounging by the pool, six CAES students spent their summer preparing legislative briefs, attending agricultural committee hearings and conducting agriculture-related research while earning course credit.

• Tess Hammock, a sophomore from Forsyth studying agricultural communication (Rep. Austin Scott).
• Michael Thompson, a sophomore from Toccoa studying agricultural and applied economics (Rep. Doug Collins).

The Congressional Agricultural Fellowship is made available through the Deans’ Promise, a collection of enrichment opportunities ranging from internships to study abroad programs that encourage CAES students to participate in learning experiences beyond the classroom.

For more information about Dorfman’s economics research, read his “Forbes” column at forbes.com/sites/jeffreydorfman.
During his 27-year tenure with the University of Georgia, Ed Kanemasu, the recently retired assistant dean of international affairs and director of global programs for the College of Agricultural and Environmental Sciences, worked to initiate global partnerships from Haiti to Japan and developed a strong international agriculture certificate program for both undergraduate and graduate students. Because of his efforts, about one-third of CAES students study abroad today, and dozens of the college’s research and Extension faculty work on international projects each year.

“Ed Kanemasu led the effort to move the college from [an institution] focused almost entirely domestically to one that [has] allowed [us] to become a player around the world in teaching, research and outreach,” said CAES Dean and Director Scott Angle. In honor of his work, the college created the Edward T. and Karen Kanemasu Global Engagement Award. The purpose of the scholarship award is to transform the way students view the world, encouraging them to find innovative solutions to complex poverty problems. Applications for the new scholarship will be accepted in spring 2015.

To make a gift to the Kanemasu Global Engagement Award, visit global.uga.edu/kanemasu.

A Kenyan woman shows off the tassels of maize, one of Africa’s dominant food crops.
Food Safety Goes to Market

Buying locally grown produce at the farmers market can be a great way to get fresh fruits and vegetables, but it doesn’t guarantee the produce is free of foodborne—illness-causing microbes. Just like supermarket food, locally grown food must be correctly handled to be safe for eating when it’s served on the dinner table.

That’s the message UGA Extension food safety specialist Judy Harrison shares when she meets with farmers market organizers and vendors throughout Georgia as part of the “Enhancing the Safety of Locally Grown Produce” training program, which she’s led since 2012.

Harrison and CAES sustainable agriculture coordinator Julia Gaskin came up with the idea to develop a food safety curriculum for farmers and farmers market managers after talking about the growing popularity of farmers markets and the issues that could affect safety of produce from farms selling directly to the public.

The curriculum they created, with the help of Mark Harrison and Jennifer Cannon in UGA’s Department of Food Science and Technology, as well as extension specialists from Virginia and South Carolina, offers farmers and market managers checklists and fact sheets that provide information on the best way to tackle common food safety issues.

The program, which is also being used by county extension agents in Virginia, South Carolina, Alabama and Tennessee, has two goals: keep consumers safe, and help protect the burgeoning local food movement from suffering the crippling effects of a health scare.

“Our goal is to train farmers and market managers about how to enhance the safety of locally grown and marketed products...”

JUDY HARRISON

“Our goal is to train farmers and market managers about how to enhance the safety of locally grown and marketed products...”

JUDY HARRISON

Best practices keep food safe and marketable

- Test irrigation well or pond water for disease-causing bacteria.
- Properly compost manure.
- Follow National Organic Program guidelines for appropriate waiting periods between raw manure application and harvesting.
- Keep animals out of growing areas.
- Wash produce with safe-to-drink water.
- Keep produce cool after harvest.
- Keep pets out of the market.
- Keep conditions in the market clean and sanitary.
- Ensure that food displayed for sampling is handled safely.

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For more information, contact Judy Harrison at judyh@uga.edu.

DOYLE’S DEVELOPMENTS

A food wash that, in only 60 seconds, kills pathogens on produce, kitchen counters, cutting boards and commercial food processing equipment.

A way to kill harmful microbes in food processing facilities using beneficial microorganisms.

A method for eliminating E. coli microbes in cattle watering troughs.

A way to reduce the number of harmful E. coli microbes in cows by feeding them beneficial bacteria.

Identifying a culture that substantially reduces and/or eliminates the amount of salmonella and Campylobacter in commercially processed poultry, which offers producers an alternative to antibiotics.

Though for Food

Doyle’s patented solutions for decreasing foodborne illnesses earn him top honor

Despite holding six U.S. patents and several foreign ones, University of Georgia Regents Professor of Food Microbiology Michael Doyle doesn’t think of himself as an inventor.

“I’m just a solutions-oriented person who’s interested in developing practical approaches to reducing foodborne illnesses,” said Doyle, who is also the director of UGA’s Center for Food Safety.

The National Academy of Inventors began to differ, and recently named Doyle one of its 143 fellows. He joins the ranks of university presidents, U.S. National Medal of Science recipients and Nobel laureates.

So how does he come up with each new invention?

“I’m just a solutions-oriented person who’s interested in developing practical approaches to reducing foodborne illnesses,” said Doyle, who is also the director of UGA’s Center for Food Safety.

Here are Doyle’s patented solutions for decreasing foodborne illnesses:

- A food wash that, in only 60 seconds, kills pathogens on produce, kitchen counters, cutting boards and commercial food processing equipment.
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To watch a video highlighting Doyle’s food wash, visit tinyurl.com/food-wash-video.

For more information, contact Judy Harrison at judyh@uga.edu.

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Researchers Develop a Better Way to Test for Toxins

For more than 40 years, Bisphenol A, more commonly known as “BPA,” was used in everything from plastic baby bottles and the lining of metal food containers to dental sealants. When scientists began seeing a connection between BPA and abnormal sperm and egg development, it set off worldwide public health concerns.

Three UGA researchers have discovered a more efficient, accurate and cost-effective way to pinpoint potentially harmful chemicals like BPA before they cause health problems. Their testing protocol uses cells in a petri dish and takes weeks, whereas current testing methods involve using live mice and rats and can take years of research per chemical tested.

Considering the vast number of untested chemicals—as many as 80,000—animal testing will never be a practical method to detect possible toxicants.

CAES animal scientists Franklin West and Steve Stice have collaborated with Mary Alice Smith, an environmental health science toxicologist in the UGA College of Public Health, to test the efficiency of a technology West and Stice developed to measure the effects of environmental toxicants.

"Using animal studies, you are looking at more than a year to test a chemical in rodents. Using this test, we get results in two to three weeks at most," Stice said. Stice, West and Smith use human stem cells to generate early sperm cells, which allows for the testing of toxic effects on sperm development throughout their maturation process. This is critical, as sperm cells are highly vulnerable to toxicants.

"This new testing model fills a void left by current methods and provides human-specific results," Stice said. The U.S. Environmental Protection Agency recently awarded Stice and his colleagues part of a $3 million grant to streamline the testing system, so they can more quickly determine the physiological effects of environmental chemicals on children and infants.

DID YOU KNOW?

In the average life span of two to three years, one ladybug can eat up to 5,000 aphids, thrips, mealybugs and mites.

**Luck be a Ladybug**

In many cultures, ladybugs are a sign of good luck. Brad Hounkpati, a doctoral student and Fulbright scholar in the Department of Entomology, hopes they will also become a symbol of sustainable farming in his native West Africa. Growing up on a farm in Togo, Hounkpati watched sugarcane, cassava, corn and okra die from pest infestations and felt powerless. “From this sad experience, I decided to become the solution-giver myself,” he said.

Partially funded through a Borlaug LEAP Fellowship, Hounkpati’s research focuses on using lady beetles in integrated pest management programs in eight West African countries. “By using natural enemies like lady beetles instead of relying on chemical pesticides, we can significantly reduce pest resistance, protect the environment, eat healthy and save money,” Hounkpati said.

**FLAVOR OF GEORGIA WINNER**

A Better Cheddar

When Tim Young of Nature’s Harmony Farm in Elberton took home the grand prize at the 2014 Flavor of Georgia food product contest, he wanted his win to help put Georgia-made cheese on the map. Young’s Georgia Gold Clothbound Cheddar Cheese is one of dozens of award-winning cheeses Georgia creameries have produced in the last several years. Now, along with staples like peaches and blueberries, Georgians can build one heck of a locally sourced, award-winning cheese plate.

For more information about the Flavor of Georgia contest, visit flavorofgeorgia.caes.uga.edu.

**FOR MORE INFORMATION**

For more information about the project described in this article, contact Franklin West at westf@uga.edu, Steve Stice at stice@uga.edu, and Mary Alice Smith at smithma@uga.edu.

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For more information about the Flavor of Georgia contest, visit flavorofgeorgia.caes.uga.edu.
Running for Office
Walk Georgia gets local governments moving

Hundreds of the state’s county commissioners, city council members and other local government administrators traded their dress shoes for sneakers this summer to participate in walking events, which were offered as a part of their association conferences. The wellness walks were an opportunity to get community leaders excited about combining physical activity with work and to expose them to the benefits of the UGA Extension Walk Georgia program.

Both the Association County Commissioners of Georgia (ACC-G) conference in April and the Georgia Municipal Association (GMA) conference in June took place in Savannah. Two- and three-mile walking routes brought participants to River Street in the pre-caffeinated hours of the morning while local 4-H volunteers and members cheered on their elected officials as they set the example of being physically active.

“They’re not just supporting people; they’re getting out there and doing what they’re supporting,” said Marc Delcampo, event volunteer from Effingham County 4-H.

The walks were sponsored by Walk Georgia, The Coca-Cola Foundation, Local Governmental Risk Management Services, Inc., ACCC, GMA and others.

Walk Georgia is an easy, Web-based program that encourages Georgians to lead healthier lifestyles by allowing them to track their physical activity online. Participants are also educated through a wellness- and physical activity-related blog. Through a $1 million, three-year grant from The Coca-Cola Foundation, Walk Georgia aims to reach 100,000 Georgians and decrease the number of physically inactive Georgians by 5 percent over the next few years.

For more information or to register, visit walkgeorgia.org.

NEW WAY TO WALK
Georgians aren’t the only ones hitting refresh. The Walk Georgia website underwent a complete overhaul this spring and summer, the first in its seven-year history.

WHAT’S NEW?
• Access the physical activity tracking website year-round, with two, 12-week statewide community sessions annually.
• Stay connected through Facebook and Twitter.
• Log miles on the go with mobile-device-friendly access.
• Use Walk Georgia as a completely free worksite wellness program.
• Create groups of any size.
PLUS
• Flexibility for schools, businesses and organizations to customize their own campaigns (any time of the year for any length of time).
• Incentive grants are available to schools and community organizations through local UGA Extension offices. Call 1-800-AM-UGA1 or visit extension.uga.edu to get connected to your county office.

On May 15, more than 300 guests celebrated the 100th anniversary of the Cooperative Extension System at the opening reception of an exhibit highlighting the organization’s impacts in Georgia. The exhibit was housed at the Richard B. Russell Building Special Collections Libraries from May until August. As part of the event, representatives from the Georgia General Assembly presented resolutions recognizing the centennial. A commemorative video, which included interviews with Governor Nathan Deal and former President Jimmy Carter, also debuted.

NEW ASSOCIATE STATE LEADER
The son of a former Extension home demonstration agent, Craven Hudson grew up in 4-H. Now he’s set to help lead Georgia’s 4-H program as its new associate state leader.

Hudson comes to University of Georgia from North Carolina State University, where he served as the executive assistant to the director of Cooperative Extension. He brings more than 25 years of extension experience to the peach state.

“4-H is a phenomenal part of Extension, and it’s the part that can transform the future.”

CRAVEN HUDSON
Leader Arch Smith.

Hudson’s first goals are to grow adult volunteer involvement and increase the retention of Cloverleaf 4-Hers (fifth- through sixth-graders). “4-H is a phenomenal part of Extension, and it’s the part that can transform the future,” he said.

“Certainly all the other parts are important, but I am excited about being able to focus on what we can do so that our youth can become citizen-leaders.”

Josh Paine
Sparking Memories

Beverly Sparks retires from UGA Extension, leaving a legacy of growth and research.

By Sharon Dowdy
Photography by Holly Brown
F
or more than 30 years, Beverly Sparks has focused on conducting research, publishing papers, educating Extension agents and, most recently, leading University of Georgia Extension. Since retiring on July 1, her new six-month goals include improving her golf game, spending more time in her kayak and printing photos from her post-retirement Alaskan vacation. And, she wants to work on improving her backyard landscape.

“I might have to get my county agent to help me,” laughs Sparks, who has led UGA Extension for the past seven years.

**MAKING HISTORY**

Many people view Sparks as a trailblazer because she was the first female to lead UGA Extension. She doesn’t agree.

“I was the first female ag specialist at Texas A&M, but Georgia already had some female specialists on staff when I came here, and other states have had female Extension leaders,” she said. “I had already been working with some amazing female Extension leaders like (former UGA Extension district heads) Rene Daily and Susan Harrell.”

Plus, Sparks said she wasn’t raised to see gender differences.

“I grew up in a household where my brother (UGA Extension entomologist Stormy Sparks) made the best cheesecake in the world and he did his own laundry. We never had those limitations,” she said. “I knew I was looking for a challenge, and I really enjoyed working with the agents,” she said. “It was a totally different path, but in those four years, I learned a lot about the organization and about management.”

In 2005, Sparks took another step up the administrative ladder and became interim director of Extension before officially assuming the post in 2007.

Looking back over her Extension career, Sparks only has one regret—that she wasn’t a 4-Her.

“We were only supposed to be in Tifton for a year, so I wasn’t active in 4-H. But I was friends with Pat Barkaloo’s students. What a missed opportunity that was. 4-H benefits so many kids, especially ones that are introverted like I was,” said Sparks.

Sparks is happy to be retiring at a time when Georgia Extension is in what she calls “a fast trajectory.”

“After 33 years working in Extension, I’m proud to know we are just as important now as we were in the past. There are always going to be new problems, and our relevance is still there.”

**SCIENTIFIC BEGINNINGS**

Sparks enrolled at Abraham Baldwin Agricultural College and earned a degree in agriculture while working on the UGA Tifton Campus (then the Coastal Plain Experiment Station). Then, she headed to UGA for an undergraduate degree in horticulture, working with Gary Couvillon as her major professor. Employed part-time at a florist in Tifton, she briefly considered a career in greenhouse production, but she realized that wasn’t for her.

While working on her master’s degree, an internship led her to the UGA Griffin Campus (then the Georgia Experiment Station, where she studied the scale species’ taxonomy for three summers under the tutelage of Dr. H.H. Tipkins. Officially bitten by the entomology “bug,” Sparks headed to Louisiana State University to pursue a doctorate.

Her father, then an entomologist with the U.S. Department of Agriculture, was less than excited to hear about her newfound love of entomology.

“He said, ‘Oh, no. You’ll never get a job, and I’ll have to support you for the rest of your life,’” she remembers. “Turns out, her father didn’t have to pay her bills after all. Sparks finished her Ph.D. and started her first job as an extension entomologist at Texas A&M University, working in 18 counties in the Dallas-Fort Worth area. Seven years later, the head of UGA’s Department of Entomology, T. Don Canerday, called to encourage her to apply for one of three faculty positions.

“He asked me if I would be interested in coming home. He was another great mentor,” she said. So in 1989, she headed back to Georgia and became UGA’s Extension entomologist in Athens.

(The other two positions were filled by Kris Bean in Griffin and Will Hudson in Tifton, both of whom are still with the university.)

Sparks studied fire ants and other ornamental and turf pests, and worked closely with the structural pest control industry. But her favorite aspect of the job was training county agents.

**BECOMING A LEADER**

In 2000, Sparks walked away from urban pests, hung up her lab coat and became director of the northeastern district of UGA Extension.

“I knew I was looking for a challenge, and I really enjoyed working with the agents,” she said. “It was a totally different path, but in those four years, I learned a lot about the organization and about management.”

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“After 33 years working in Extension, I’m proud to know we are just as important now as we were in the past. There are always going to be new problems, and our relevance is still there.”
The ideal way to learn about something is to go where it’s done best and dive right in. That’s how 19 CAES students majoring in animal science, agricultural communications, and agricultural economics found themselves in Uruguay, where sustainable agriculture is not just a buzzword, but a way of life, and where cows outnumber humans 3-to-1.

Uruguay’s climate, soils, and crops are similar to Georgia’s, which—when combined with strong alumni connections—make it a choice study abroad destination. The students’ tour of southeastern Uruguay, led by Instituto Nacional de Investigación Agropecuaria (INIA) agronomist and economist Bruno Lanfranco (MS – Ag and Applied Economics, ’00; PhD – Ag and Applied Economics, ’01), featured visits to two research stations, similar to UGA Extension’s research stations.

By Angela Rowell, Merritt Melancon and Amanda E. Swennes

Photography by Angela Rowell

Breaking From the Herd

Students explore ‘greener’ pastures on Uruguay’s sustainable farms during spring break
Hosted by CAES alumni who live and work in Uruguay (see page 26), the students spent a week learning first-hand how farmers in this tiny South American country built a robust agricultural export industry around sustainable cattle ranching. The students toured large and small pasture-based dairies and beef cattle operations, as well as rice and soybean farms whose harvests are destined for export and byproducts to feed the country’s cattle.

They learned by listening to lectures by agricultural researchers at the Instituto Nacional de Investigación Agropecuaria (INIA is similar to Georgia’s agricultural experiment stations) and talking with Uruguayan farmers. Showing up for class meant tromping through fields, and some of their most memorable teachers were tiny, newborn calves.

Uruguay offers the perfect classroom for students looking to explore novel ways of cattle farming and to discover how consumer demand for grass-fed beef affects U.S. markets, said Curt Lacy, an agricultural and applied economics professor who co-teaches the course, “Uruguay: Sustainable Beef and Grain Production and Marketing Systems,” with fellow agricultural economics professor Nathan Smith.

Top left: Students step into the bean fields; soybeans are Uruguay’s top grossing export. Top right: On a visit to a family-owned operation, the group learned about wool production and experienced first-hand what counting sheep really means. Bottom right: The majority of the cattle viewed on the trip were Herefords, but one stop did provide an opportunity to mingle with an Angus herd. Bottom left: The final farm tour on the trip was a corporate farm, Loma Alta, where olive trees grow and olive oil is pressed. Windmills provide the energy to run the operation.
Uruguayan cattle are raised free of antibiotics and supplemental growth hormones and the feed does not contain animal protein. The animals predominately eat grass and roam the land at leisure. Every cow has been tagged since 2006, so diseases can more easily be traced back to the source and managed quickly and effectively. Uruguayan herds are foot-and-mouth disease-free thanks to biannual vaccinations.

“As agriculture becomes much more global, giving students the opportunity to see the economics of production at the international level is important,” Lacy said.

In addition to visiting both family farms and larger-scale corporate operations, the students saw the entire production process—from birth to the meat-packing plant, and harvest to shopping bag—for two of Uruguay’s top commodities: beef and rice. Ultimately, the students saw how a culture known for valuing tradition—as they still rely on herding dogs and gauchos—integrates cutting-edge genetic scoring and animal husbandry practices to be one of the world’s most successful beef exporters.

“I have always dreamed of owning my own farm, and from behind my textbooks it seems fairly easy. But now I know it’s more than pen and paper; it’s hard work, dedication and passion. Thanks to the Deans’ Promise, I was able to have a hands-on experience with many agricultural industries. It was the first time in my life when I realized how large of an impact agriculture has on not just America, but the world.”

CHASITY TOMPKINS, AG AND APPLIED ECONOMICS, ’15

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“CHASITY TOMPKINS, AG AND APPLIED ECONOMICS, ’15

Left: On a visit to El Arroyito farm and ranch, the group meandered through soybean and rice fields and even rode a rice combine. After seeing the crop in the field, the group toured the Saman rice mill to watch the rice being processed.

Above: The students quickly learned why Uruguay holds the Guinness World Record for per-capita consumption of beef and veal as they dined on asado (barbecue), chivitos (steak sandwiches) and milanesas (thinly breaded steak fllets).
Sarah and Rachel Harrison, twin sisters and poultry science majors from Tifton, Georgia

“I have fallen in love with research. Helping faculty solve problems in the poultry industry is a great opportunity that most people don’t have as an undergraduate student.”

– Rachel Harrison

The Deans’ Promise is a commitment at the College of Agricultural and Environmental Sciences to enrich our students’ experiences beyond the classroom. By supporting the Deans’ Promise, you create opportunities for CAES students to study abroad, gain valuable experience in internships and externships, and participate in field research. Consider making a gift today so our students can continue to grow personally and professionally.

Donate before Dec. 31, 2014, and your gift will be matched, helping more students like Sarah and Rachel explore new horizons at CAES.

AN AGRARIAN ECONOMY

Uruguay’s GDP included $9.1 billion in exports in the 2013 calendar year, 80 percent of which was from ag production*:

- 33.2 percent crops (corn, rice, soybeans, etc.)
- 24.2 percent livestock
- 9.7 percent dairy
- 7.1 percent forestry
- 6.1 percent other agriculture

*Does not include fisheries

Uruguay’s 11.1 million head of cattle outnumber Georgia’s 1.3 million head of cattle nearly 10-to-1. The population of Uruguay is 3.395 million, compared to 9.92 million people in Georgia. At approximately 62.1 kilograms (136 pounds and 14.51 ounces) per person, it’s no wonder the country has the highest per-capita consumption of beef and veal in the world.

More than 90 percent of the country’s cattle are free-range grass-fed

This was the second CAES study abroad course in Uruguay. During this most recent trip, the class witnessed the signing of a cooperative agreement between INIA and UGA to encourage future collaboration, primarily in the area of pasture-based livestock production systems research. Before the ink was dry, Lanfranco, Lacy and Smith were already discussing plans for the future.

For more information on the Uruguay study abroad program, visit students.caes.uga.edu/go/uruguay.

HISTORY IN THE MAKING

Uruguay

at a Glance

IT’S A SMALL AG WORLD

CAES can be credited with a lifelong connection for these alums, who welcomed the study abroad group with open arms to their native country.

Bruno Lanfranco
Agronomist and Economist, Instituto Nacional de Investigación Agropecuaria
MS – Ag and Applied Economics, ’00; PhD – Ag and Applied Economics, ’01

Horacio Saravia
Technical Manager of Communication and Technology Transfer, Instituto Nacional de Investigación Agropecuaria
MS – Ag and Applied Economics, ’05

Olga Ravagnolo
Principal Investigator, Instituto Nacional de Investigación Agropecuaria
MS – Animal Science, ’99; PhD – Dairy Science, ’01

Gabriel Oleggini
Deputy of Area Cooperative Milk Production and Relationships, Conaprole
MS – Animal and Dairy Science, ’00

HISTORY IN THE MAKING

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“...with research. Helping faculty solve problems in the poultry industry is a great opportunity that most people don’t have as an undergraduate student.”

– Rachel Harrison

Sarah and Rachel Harrison, twin sisters from Tifton, GA
Every year, a foodborne disease sickens one out of six Americans. That’s about 48 million people. Nearly 128,000 will be hospitalized, and 3,000 will die from ingesting harmful foodborne bacteria. Those statistics, released by the Centers for Disease Control and Prevention in 2011, are what Deann Akins-Lewenthal (BSA – Food Science, ’02; MS – Food Science, ’05; PhD – Food Science, ’08) wants people to understand.

For the past five years, Akins-Lewenthal’s primary responsibility as a food microbiologist with ConAgra Foods has been food safety. She recently received a promotion and is now director of microbiology and food safety. Akins-Lewenthal oversees the corporate microbiology and allergen groups of ConAgra Foods and is responsible for establishing a strategy to identify and address food safety risks in products and manufacturing facilities. She also evaluates and integrates new technology into ConAgra’s food safety programs.

A 2014 UGA Alumni Association “40 Under 40” honoree, the CAES alumna also has a personal desire to keep consumers, like her family, safe.

“Food safety education is very important to me. At ConAgra Foods, we are constantly mindful that millions of people trust us each day to provide safe, wholesome food. Ensuring food safety is everyone’s responsibility, and I want people here in Nebraska, my hometown of Tifton, Georgia, and around the world to understand the dangers associated with not cooking or handling food properly,” Akins-Lewenthal said.

**READY TO EAT**

Unfortunately, not all consumers comply with cooking instructions. The results can be dangerous—sometimes even fatal.

Akins-Lewenthal and her fellow scientists have been working since 2009 to develop a patent-pending product, SafeGuard™ Ready-To-Eat Flour, a product of Ardent Mills. Progress includes developing a process to remove potential pathogens from flour through heat treatments. The idea behind a ready-to-eat product is that the raw ingredient has a reduced risk of pathogen contamination.

“When we make food [products], we expect people to follow the intended use and cooking instructions, but we know that’s not always the case,” she said. “Providing ready-to-eat solutions is one way we can help reduce the risk of someone getting sick.”

“However, it is important for people to understand that it is not just the raw ingredients that pose a risk, but that storage, handling and preparation of food is equally important,” she said.
Nearly 125 years after the first clumps of bamboo were planted in Savannah soil, the Coastal Georgia Botanical Gardens at the Historic Bamboo Farm are poised to become one of the East Coast’s premier garden tourism destinations. Until you can make time to visit this hidden gem in person, take a look at the gardens’ storied past, present and future.

By Norman Winter
Photography by Norman Winter unless otherwise noted.

Clockwise from top right: The 51-acre gardens are home to several crystal clear connecting lakes and a water garden. David Fairchild, renowned American plant explorer and botanist, with his family visiting the historic Japanese timber bamboo grove circa 1919. A fiery maple tree signals the changing of the seasons.
No matter where you look, it seems like every plant has a story to tell—and maybe a secret history. Some of the gardens’ historic buildings, trees and shrubs date back to 1919, when the gardens operated as a U.S. Department of Agriculture Plant Introduction Station. In the 1940s, Henry Ford and Harvey Firestone helped conduct rubber research in Greenhouse No. 2.

Today, the gardens are abuzz with plans and projects for the future. The new Andrews Visitor and Education Center (above) is scheduled to open in late 2014, and designs for the formal garden are ready to be turned into reality. The largest bamboo maze in the United States has been planted, and design and construction is also underway in the shade garden. The commitment of the University of Georgia’s College of Agricultural and Environmental Sciences coupled with the tireless efforts of the non-profit Friends of the Coastal Georgia Botanical Gardens has this historic garden ready for the future.

Left: The gardens feature four enormous Lord’s hollies, also known as Kurogane hollies (Ilex rotunda). Each December, the gardens are lit with more than 275,000 lights, making the hollies an even more astounding sight (and an easy perch for a mockingbird).

The gardens are open to the public from 8 a.m. to 5 p.m., Monday through Friday; 10 a.m. to 5 p.m. on Saturday; and noon to 5 p.m. on Sundays. For more info or to plan a visit, go to coastalgeorgiabg.org.
Imagine you’re a high school student at a local party. The DJ has everyone getting down on the dance floor. Your friends are playing beer pong and a guy is handing out drugs and party necklaces. You’re having a blast.

All of a sudden, you hear a loud crash. Everyone runs outside to see a terrible car wreck. Local emergency personnel arrive, but two of your friends are now dead and another has to be airlifted to the hospital. The driver is arrested for drunk driving and vehicular homicide.

This was one scenario Morgan County High School freshmen experienced on May 6 during the first Teen Maze, the brainchild of five Morgan County 4-H’ers.

For decades, high school administrators have parked mangled vehicles on their campuses as visual reminders of the consequences of drinking and driving. The Teen Maze stepped up this tactic by several notches.

Some 275 freshmen drew random cards and experienced the effects of life-altering situations, like driving drunk, becoming a teenager parent and contracting a sexually transmitted disease.

The maze took just an hour to complete, but it was the result of two years of planning by the Morgan County 4-H’ers. The students first worked with adult leaders to determine how they could improve their community. Their research revealed several teen-related issues, many the result of poor decision-making.

“The goal was to have the teenagers realize the consequences of a wide range of risky behaviors,” said Janet Woodard, Morgan County Extension agent.

The maze was funded by a U.S. Department of Agriculture Engaging Youths Serving Communities grant from the National 4-H Council and became a reality through the support of volunteers from the local 4-H office, high school, health department, sheriff’s department, hospital and court system.

In addition to the mock party and car accident, students were “arrested,” handcuffed and charged with a variety of crimes ranging from shoplifting to underage drinking. The teens wore prison garb, sat in a mock holding cell, were fingerprinted and stood before a judge for sentencing.

The maze also included real-life situations, like a first “sexual experience” after which teens drew pregnant or not pregnant cards. The “pregnant” students, both boys and girls, donned a pregnancy vest that simulated weight gain and made the choice to raise their child or put the child up for adoption. Based on their choice, the students either learned more about adoption or completed a series of child care lessons, including how to diaper and bathe a baby. They also saw the effects of taking drugs while pregnant by holding an underweight “baby.”

Students who pulled a not pregnant card sighed with relief, only to be issued an STD card instead. A spin of a wheel determined which disease they “contracted,” and the students were then educated on the STD’s life-altering effects, complete with graphic photographs.

“The 4-H’ers who planned the event were the driving force in making this happen. They are truly a great example of youth making a difference,” Woodard said.

Victoria Cagle, a member of the planning team, attended the event despite the fact that she already graduated from high school. She plans to help with future Teen Mazes, too.

“The Teen Maze was a life-changing event, not only for each and every student, but also for each and every volunteer, no matter how large or small their contribution was,” Cagle said. “Just knowing that by doing this event I could save someone’s life makes every ounce of effort I put into this project beyond worth it.”

An anonymous post-event survey of students showed that most plan to either abstain from or stop having sex and many plan to stop “hanging out with the wrong people.” Many also plan to “start thinking before making decisions,” “stop using drugs,” “start being a dad and taking care of my baby” and “start being more careful about the crowd I hang out with.” One student summed up the event by saying the most important thing he learned was that “doing the wrong thing can get you into a boatload of trouble.”

• Sharon Dowdy
It’s been almost a decade since a mass die-off of honey bees in the United States brought the public’s attention to the decline in honey bee populations that had worried entomologists for decades. Colony collapse disorder, a problem resulting from a collection of symptoms that killed off 60 to 75 percent of some beekeepers’ hives seemingly overnight during the winter of 2006 and 2007, made headlines and heroes out of bees.
Bees are big business in Georgia, with the reported farm gate value of honey bee services and honey at about $17.5 million. That’s a lot, but it pales in comparison to the value of the actual work that bees—and pollinators in general—do for the state’s overall economy.

A recent study by UGA researchers found that pollinators—bees, wasps, butterflies and birds—have a $367.3 million impact on the state’s economy.

“This can be considered a lower bound of the value of pollination services in Georgia,” said Ashley Barfield, an agricultural and applied economics Ph.D. student, who conducted the study as part of her master’s thesis.

Barfield’s study focused on the value of Georgia crops that partially or completely rely on pollination by insects and birds. The study doesn’t account for ornamental crops or pollinators’ roles in providing forage for beef and dairy cattle. She used a known pollination dependency ratio, which describes how much of each crop would not develop without pollination, to determine how much of each crop’s farm gate value is due to pollinators.
“It’s a percentage from zero to 100 that quantifies the impact of pollination on either the quality or quantity of a crop,” she said. “So you can say this much of the value of this crop is dependent on pollination.”

Previous studies working to calculate the value of pollination tallied the price that farmers paid to rent bees and relied on the reporting of beekeepers. Unlike Barfield’s study, these evaluations didn’t account for the value of wild pollinators or feral bees, and may have missed rental revenue generated by cash-and-carry deals. Therefore, the new study is a more accurate reflection of the broad ecosystem service values provided to agriculture by pollinators.

Barfield completed the study as a part of an interdisciplinary team. Other researchers on the project included John Bergstrom and Susana Ferreira of the Department of Agricultural and Applied Economics; Keith Delaplane of the Department of Entomology; and Alan Covich of the Odum School of Ecology.

The decline in honey bee populations isn’t just a problem in the United States, and the impact of UGA’s bee research program doesn’t stop at the U.S. border.

This year, Keith Delaplane, a CAES entomology professor, was inducted into the Most Excellent Order of the British Empire in recognition of his research on honey bees and their disappearance. British Ambassador to the United States Sir Peter Westmacott presented Delaplane with the honor on behalf of Queen Elizabeth II at a ceremony in February 2014 at the British Embassy in Washington, D.C. Induction into the order is bestowed on individuals who have demonstrated distinguished service to the arts and sciences and public services. Delaplane received an honorary induction, reserved for non-British nationals who have made significant contributions to British interests.

In addition to his UGA-based research program, he has worked on and off in Britain since 2000 as a program reviewer for the United Kingdom Natural Environment Research Council. Over the past 14 years, he has given support to local and national beekeeping associations throughout the U.K., where he is well known for his scientific and educational outreach work. He was instrumental in forming the Institute of Northern Ireland Beekeepers, and in 2012 and 2013 he was a visiting sabbatical scientist at the U.K.’s National Bee Unit in York, England, where he and his British colleagues conducted research on honey bee pollination, health and breeding.
**How Bees Influenced a Nation**

The bee is [honeybee]... in the Western Hemisphere, has played a significant role in the growth of the United States of America’s agriculture, economy and symbolism. The bee’s behavior reflects American virtues and values, such as fidelity, loyalty, and comradeship. The honey bee has been used as a symbol of responsibility, industry, and stability from the time of the Romans, and is found often in the states that were Colonies.

**DID YOU KNOW?**

The honey bee is the state insect for Arkansas, Georgia, Kansas, Louisiana, Maine, Mississippi, Missouri, Nebraska, New Jersey, North Carolina, Oklahoma, South Dakota, Tennessee, Utah, Vermont, West Virginia and Wisconsin.

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**Hives for Hire**

Some of Georgia’s largest cash crops depend on bee pollination to successfully make it from planting to harvest. To help maximize fruit production, farmers often rent beehives to ensure there are bees buzzing when crops are blooming.

Honey bees are more effective than other bees in open field pollination because they make repeated trips to a flower, distributing pollen more widely.

Farmers choose to rent the bees because this is much easier than caring for them year-round. They are usually busy enough without the added requirements of beekeeping management. “They prefer to simply hire a professional,” said Keith Fielder, UGA Extension agent in Putnam County and former president of the Georgia Beekeepers Association.

Some critics believe the stress of traveling from field to field can contribute to declines in honey bee populations, but bee rentals are an integral part of modern fruit and vegetable farming. They’re also a big part of Georgia’s agricultural economy.

“A lot of people who have bees see it as a two-fold revenue stream; they’ll rent hives and then also sell honey. Diversity is the key to survival in the beekeeping world,” said Fielder.

One estimate values Georgia’s bee industry at about $17.5 million, including honey sales, bee sales, honey-bee equipment sales and bee rentals for pollination.

**RENTING 101**

In the fall and winter, producers contact beekeepers to reserve hives for their fields in the spring. Squash, cucumber, cantaloupe, watermelon, blueberries and apples all depend on bees for pollination.

Starting in March, beekeepers begin moving their hives across fields in south Georgia. April and May are their busiest months. Beekeepers typically move northeastward with the spring, moving their hives to new pollination jobs as the blossoms open.

Most beekeepers move their bees at night or early in the morning, when the majority of the bees are in the hive. Beekeepers will avoid moving a hive at all costs after the sun rises, or they risk leaving up to 90 percent of their colony behind. Another benefit of moving the bees at night is the cooler temperatures. It’s good bee rental etiquette to call your beekeeper as far in advance as possible before spraying chemicals on your field. The beekeeper will move the colonies and replace them when the pesticide is no longer active.

The rental cost is usually $60 to $80 per hive in Georgia, but farmers in other states, like California, have paid upwards of $200 per hive for bees to pollinate high-dollar crops like almonds. Most farmers aim to have one hive per acre since bees have an effective foraging radius of about 400 to 500 yards.

The average number of managed hives varies greatly in Georgia.

**How it Works**

- The Georgia counties with the highest farm-gate values from bee-related farm services and products, such as honey and rental agreements, are in the state’s commercial vegetable-producing region.

- The average number of managed hives varies greatly in Georgia.

- Some beekeepers will move their bees into the mountains by mid- to late June to collect nectar for sourwood honey.

**4-H member in Coweta County for four years**

**Editors’ note:** Madeline Hillebrand is a home-schooled ninth-grader who has been an active 4-H member in Coweta County for four years. She was awarded first place in the 2014 Georgia Beekeeping Essay Contest. To read the full essay, visit caes.uga.edu/alumni/news/.

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s the issue of declining honey bee populations has gained worldwide attention, the number of Georgians interested in beekeeping has increased. Beekeepers have an important role in ensuring these essential pollinators are protected.

The Young Harris Beekeeping Institute, a three-day workshop held each May with the support of the UGA Honey Bee Program, has helped bee enthusiasts stay up to date on the latest research and practices for more than a decade. The institute has become a gold mine for professional and hobby beekeepers in the Southeast, but attending is not cheap. The cost, about $200 per beekeeper, includes travel and lodging, putting it out of reach of many young beekeepers.

The Welk/McClure Scholarship was recently established by Al Welk to encourage undergraduates in the College of Agricultural and Environmental Sciences to attend the workshop and take up beekeeping. The annual $400 scholarship honors his friend and longtime Cobb County beekeeper Feltone McClure.

“It’s my way of continuing Mr. McClure’s passion for beekeeping. Feltone McClure took pride in his apiary, but also enjoyed teaching people about honey bees and encouraging others to take up beekeeping,” Welk said.

McClure passed away in 2013, but not before teaching Welk and many other new beekeepers his tricks of the trade. The McClure apiary included more than 230 hives in Cherokee, Cobb and Lumpkin counties. The hives produced as much as 6,000 pounds of honey a year.

“For new beekeepers, he would always find time to be a mentor,” Welk wrote. “He would provide not just advice, but also hive parts or a swarm that he recovered. If the need arose, he would drop what he was doing and come over to examine a hive or help with a problem.”

- Merritt McLanahan

In addition to the Welk/McClure Scholarship, the Myron R. Schuer Memorial Endowment supports grad students and post-docs researching honey bees and crop pollination. For more information, email Keith Delaplane at kad@uga.edu.

Macy’s matches customer donations to Coastal Georgia Botanical Gardens

Shoppers standing in the Macy’s checkout line are usually there buying a new outfit or a china place setting from a wedding registry. Jim Andrews, of Savannah, stood in line at the Oglethorpe Mall Macy’s to make a donation in support of the Coastal Georgia Botanical Gardens. Six other garden patrons followed suit, raising a total of $149,000 through the retailer’s “Heart Your Park” campaign.

The Coastal Georgia Botanical Gardens at the Historic Bamboo Farm was one of more than 550 parks and green spaces in local communities. From March 7 to March 31, Macy’s customers could donate to their local park, with the store matching up to $250,000 total.

The funds will be used to support several of the projects planned for improving the gardens, such as creating the children’s garden depicted above. They also plan on purchasing a new sign that will be seen from Ogeechee Road. The digital display sign will allow the CGBG to promote its events and programs to those driving by the entrance.

- Amanda E. Swennes

CAES FACULTY AND STAFF GO BEYOND THE JOB DESCRIPTION

From Four Towers

I have long been a devotee of the cowboy humorist and philosopher Will Rogers, who once stated, “We elevate ourselves but should never reach so high that we would ever forget those who helped us get there.”

As I reflect upon my experiences with the College of Agricultural and Environmental Sciences, I have considered all of the help that I have received from our beloved institution. Not only have I gained knowledge and insight from studies, but have benefited throughout my life from the mentoring, relationships and connectivity with faculty, staff, alumni, friends and supporters of the college.

Those of us in the agriculture and natural resources industry are committed to the notion that when we harvest resources, we need to give back to ensure a future bounty, both for ourselves and following generations. In that spirit, I ask that you carefully consider the harvest that you have enjoyed as a result of your affiliation with the college and to commit to furthering its development and advancement.

Your involvement in the CAES Alumni Association is critical to us. While we need your financial support, we also need your presence at our activities, your advocacy and your engagement with faculty, staff, students and alumni. Please take a moment to visit our website, caes.uga.edu/alumni, and consider how you might support your alumni association and its activities in the coming year. I believe you will find lots of opportunities, and I am very much looking forward to working with you.

I believe you will find lots of opportunities, and I am very much looking forward to working with you.

SEED MONEY

Wayne Hanna has become the “TF” grass guru—breeding, planting, growing and testing to create the perfect grasses for golf courses, athletic fields and home lawns around the world. To ensure the Tifton turf-breeding program continues to produce the world’s finest grasses, Hanna funded the UGA Tifton Campus Warm Season Turfgrass Breeding Endowment with a gift of $525,000. But Hanna’s giving didn’t stop there. He set a goal of $2 million and committed to help raise the funds from industry. The endowment will support the next generation of UGA experts breeding the South’s best turf.

- Amanda E. Swennes

In addition to the Welk/McClure Scholarship, the Myron R. Schuer Memorial Endowment supports grad students and post-docs researching honey bees and crop pollination. For more information, email Keith Delaplane at kad@uga.edu.
Two pioneers in Georgia agriculture were inducted into the Georgia Agricultural Hall of Fame during the 60th annual CAES Alumni Association Awards Banquet.

Herb Bennett, a former Extension agent and poultry scientist, and Ben Copeland, president of Patten Seed Company, join the ranks of other Hall of Fame inductees like D.W. Brooks and Hoke Smith.

The Georgia Agricultural Hall of Fame was established in 1972 to recognize individuals who make unusual and extraordinary contributions to agriculture and agribusiness industries in Georgia. Inductees are first nominated and then selected by a committee.

Nominees must have impeccable character, be outstanding leaders in Georgia agriculture, have made noteworthy contributions and have received appropriate recognition for achievements and accomplishments in more than one area of agriculture.

HERB BENNETT

Bennett has been called “the father of the commercial egg industry in Georgia.” He served as the county agent in Jasper, Madison, and Dade counties and became a UGA poultry specialist in 1944. With funding from the Sears-Booche Foundation, he began the 4-H Club Poultry Chains to teach youths the process of raising poultry from chicks to layers. The clubs began in eight counties and grew to include 1,500 boys and girls in 123 Georgia counties by 1954.

Bennett’s sound poultry husbandry techniques were adopted by other Southern states and were shared through a UGA video that was later translated and used in Puerto Rico, the Caribbean and parts of Central and South America. He authored numerous Extension poultry articles, including one based on his experience building and operating Georgia’s first 300-foot laying house. He worked as a private poultry consultant from 1961 until his retirement in 1970.

BEN COPELAND

Copeland has been instrumental in making Georgia turfgrass one of the largest agricultural commodities in the state. After graduating from UGA with a landscape architecture degree in 1967, Copeland started his professional agriculture career designing parks for the Tennessee Department of Conservation. Bill Roquemore, also an inductee of the Georgia Agricultural Hall of Fame, encouraged Copeland to return home to Georgia and to Patten Seed Company in 1970. In 1995, he became president of the company, which now markets 125 million square feet of sod and more than 200,000 pounds of grass seed per year.

In addition to managing the company’s turfgrass production, Copeland also manages Patten’s pecan nursery that provides more than 50,000 trees annually. More than 80 percent of the company’s pecans are exported to China.

For more information and to read about all Hall of Fame inductees, visit caes.uga.edu/alumni/Fame.
The Gem of South Campus

New students and visitors might find it hard to believe the green space that makes up most of South Campus was a major road just a few years ago. D.W. Brooks Mall, which stretches from Carlton Street and the Miller Plant Sciences Building to Soule Street and Hardman Hall, is the result of the largest green space project to be completed on the university’s main campus.

D.W. Brooks Drive, named in honor of D.W. Brooks (who holds the record for being both the youngest and oldest UGA professor), was a major vehicular artery for South Campus cars and buses until 2001. Completed in 2003, D.W. Brooks Mall makes up most of South Campus was a road before construction began in 2001. With the master plan, the campus became more pedestrian-friendly.

One of the biggest challenges, however, was blasting through the bed of granite that lies underneath most of South Campus. This was necessary for modernizing the sewer, water, electric, communications and steam infrastructure—updates that would be needed for future buildings like the Science Learning Center, which is scheduled to open fall of 2016.

GETTING “THE LOOK”

One major addition resulting from the new mall was the corn stalk fence, which serves as a symbolic and visual gateway to South Campus. The cast iron reflects the historic characteristics of the UGA Arch, the threshold of North Campus, while celebrating the agricultural heritage of South Campus. The original design came from a fence found in the New Orleans Garden District, but the fence post mold that was used was especially made for the project by Stewart Iron Works of Kentucky.

“The things missing from South Campus are markers and identifiers, or those elements specific to a place that are of special significance. These elements help to infuse a place with identity and meaning. Whereas North Campus has the Arch and the Chapel bell, South Campus really needed a kind of iconography to give it that same special and layered meaning of place. This project helped change that,” Simpson said.

Another unique feature is the circular lawn outside Hardman Hall. It was originally designed to contain a fountain similar to the one on Herty Field. Budget constraints prevented the installation, but the infrastructure to support adding a fountain in the future is in place.

The space serves as a symbolic memorial in conjunction with the campus arboretum. When a tree planting is added to the arboretum in someone’s remembrance, the name of the honoree is inscribed in stone at the base of the surrounding wall. The sidewalks in this area are imprinted with leaves as a way to tie the area to the campus arboretum.

The mall was a road before construction began in 2001. With the master plan, the campus became more pedestrian-friendly.

Who was D.W. Brooks?

D.W. Brooks was not only one of the biggest contributors to our college, but he also played an influential role in Georgia agriculture. Founder of Gold Kist Inc. and Cotton States Insurance Companies, Brooks was the first inducement to the Georgia Agricultural Hall of Fame. He also advised seven U.S. presidents on agricultural issues and policies.

After receiving both his bachelor’s and master’s degrees in agriculture from the university, Brooks began his career as a UGA professor at the age of 19 and returned as a guest lecturer when he was in his 90s.

In addition to the road and mall named after him, his legacy is honored every fall through the D.W. Brooks Awards and Lecture. The lecture series, in addition to the teaching and excellence awards, are supported by the D.W. Brooks Endowment Fund, which also supports many other programs and activities in the college.

For more information on contributing to this fund, contact the Office of External Relations at 706-542-3390.
At the 2014 College of Agricultural and Environmental Sciences International Agriculture Day celebration, the photo “Fields of Reeds” by Kai Wang (BSA – Biological Science, ’14) won first place in the Ag Abroad Photo Contest. Wang took the photo while living in Cusco, Peru, for six weeks. His photograph depicts a local woman harvesting reeds, which are used to build houses and make clothing.

“I think traveling abroad is important because it really broadened my view. I experienced a different culture and learned a new language. It also helped me choose a better career because now I know more about what I am truly passionate about,” Wang said.

About 30 percent of CAES students study abroad while at the University of Georgia, and the college is actively working to increase that percentage by offering its students travel scholarships and assistantships. For more on ag abroad, read about our students that participated in the sustainable beef and grain production and marketing systems study abroad program in Uruguay on page 20.