Students in an MSU School of Human Sciences class use creativity to make clothing from everyday objects. ... Page 8

Research, Education and Outreach in the Division of Agriculture, Forestry and Veterinary Medicine

Mississippi State University
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Maegan Bedells of Clinton puts the finishing touches on a dress she made with coffee-cup holders, plastic stirrers and paper filters cut into snowflakes. (Photo by Megan Bean)

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The torrential rain and tornadoes that swept across the South this spring cut paths of destruction in several areas of Mississippi. As a land-grant university, Mississippi State University has significant resources statewide that are part of the state's emergency response structure. Those resources were mobilized in response to the recent storms.

In the areas hardest hit by tornadoes, including the town of Smithville in Monroe County, MSU Extension Service personnel were part of the local emergency response teams, helping to distribute donated food, water and other items to storm victims, as well as providing other services.

Personnel from our four Research and Extension Centers used generators, heavy equipment and other resources to aid in recovery efforts.

Extension Service and College of Veterinary Medicine personnel began working with the Mississippi Board of Animal Health after the storms to address animal-related issues.

MSU row crop and livestock specialists, Extension Service area agents, Mississippi Agricultural and Forestry Experiment Station scientists and other university personnel are continuing to collect data for damage estimates and to provide information and other support for Mississippians affected by the storms.

Faculty and staff with the College of Forest Resources and the Forest and Wildlife Research Center began meeting with forest landowners immediately after the tornadoes to provide information on salvaging storm-damaged timber and on other issues related to managing damaged forestland.

Our students are also a valuable part of recovery efforts. After the 2010 tornadoes in central Mississippi, two College of Forest Resources graduate students, Michael Crosby and David Wilkinson, developed a damage assessment model that uses existing satellite images to determine the impact of storms on large areas of timberland. Their model is helping the Mississippi Forestry Commission significantly reduce the time it takes to determine timber losses.

Service to Mississippi and its citizens is the mission of Mississippi State University. Normally, that mission is accomplished through academic programs on campus and university-based outreach programs throughout the state. In times of need, however, our resources become part of the state's overall emergency response.

Our greatest resource is the people who make up the Division of Agriculture, Forestry and Veterinary Medicine, and I am proud of how they have met these latest challenges, as part of their jobs and also as volunteers in their communities.

Gregory A. Bohach
Retired Military Dog Visits

Lex, a U.S. Marine Corps bomb-sniffing dog who lost his handler in Iraq, is getting help facing the challenges of aging with war injuries.

Lex was injured in a rocket-propelled grenade attack in Fallujah that killed his handler, Cpl. Dustin Lee of Quitman. Lee’s parents, Jerome and Rachel Lee, adopted Lex when he was granted retirement from duty. Lex came to the MSU College of Veterinary Medicine in late October. Dr. John Thomason, a CVM small animal internal medicine resident, is his attending physician.

“The main concerns were his reluctance to stand and his difficulty in standing,” Thomason said. “He has also started to drag his hind limbs when he walks.”

The college conducted a CT scan and a DNA test to evaluate for a specific genetic condition.

“The CT scan provides us the ability to evaluate his spinal cord and other neurologic structures that could be contributing to his condition,” Thomason said.

Mrs. Lee said the blast that killed her 20-year-old son on March 21, 2007, filled Lex’s body with shrapnel, nearly severed his tail, and fragmented the rest of his body. Cpl. Lee and Lex had worked together since 2006.

“Dustin and Lex were out in front. They went ahead of the other troops, searching the roadsides and buildings for explosives. They made many, many hits,” Mrs. Lee said.

Lex had been a military working dog for eight years and was on his second tour of duty in Iraq when he was injured. After his handler’s death, Lex went to Camp LeJeune, N.C., to recover and then returned to the Marine base at Albany, Ga., where he had begun his career with Cpl. Lee. North Carolina Rep. Walter Jones heard of Cpl. Lee and Lex’s story and spearheaded efforts for the dog to be granted retirement and adopted by his deceased handler’s family.

“We adopted him Dec. 21, 2007, nine months to the day after we lost Dustin,” Mrs. Lee said.

Lex received a commemorative Purple Heart in 2008 for the injuries he received while on duty. In 2008, he was named the American Kennel Club Law Enforcement Dog of the Year. Cpl. Lee’s awards for his service include a Purple Heart, Navy-Marine Corps Commendation Medal with Valor, and a Combat Action Ribbon.

After he came to live with the Lee family, Lex began a new career visiting veterans’ homes to cheer the residents and visiting schools to teach the children what military working dogs do for their country.

“Lex carries on the spirit of Dustin,” Mrs. Lee said. “Lex brings joy where there is sadness. He helps to show the importance of the relationship between a canine and his handler, how close that bond is, and the trust they have with each other as they work to keep others safe.”

Lex’s family is awaiting results of the tests performed on him at MSU, and the diagnosis will determine future treatments. In the meantime, Lex is headed to Washington, D.C., for specialized stem cell exchange surgery, an attempt to rejuvenate his bones. He may return to MSU’s veterinary college for physical therapy and rehabilitation using an underwater treadmill.

Much information is available online about Lex and Cpl. Lee, and the family maintains a website at http://remembercpldustinlee.blogspot.com.
Jeromne and Rachel Lee speak with Dr. John Thomason, a CVM small animal internal medicine resident, about Lex's condition.

Dr. John Thomason, a CVM small animal internal medicine resident, (left) and Jennifer Evans, a veterinary student, conduct Lex's exam.
Two Mississippi agencies are working together to determine if growing native plants along highway rights of way will reduce maintenance costs while maintaining visibility and safety.

The Mississippi Department of Transportation (MDOT) and Mississippi State University’s Forest and Wildlife Research Center have sown native plant seeds along Highway 25 in south Oktibbeha County. The research team hopes native plantings will help reduce mowing expenses for the transportation department while also protecting water quality, preventing soil erosion and improving habitat for birds and butterflies.

“The MDOT spends about $209 million each year to maintain Mississippi’s highway system,” said John Gutyon, principal investigator and MSU associate Extension professor. “If we can reduce the amount of mowing and the spread of invasive plants, we can make roadside maintenance more cost-effective while also increasing the beauty of Mississippi’s rights of way.”

An expected 20 percent reduction in the amount of mowing needed each year could save taxpayers more than $10 per acre. In fiscal year 2009, MDOT employees mowed 298,808 right-of-way acres.

A survey of plants along the highway revealed that about 75 percent of the species are native to Mississippi. Despite the large number of native species seen in the state’s rights of way, introduced plants actually cover more ground. Introduced species include Bahia grass and Bermuda grass, which are useful for revegetating roadways after construction projects.

“These grasses are economical and grow quickly to prevent soil erosion and protect water quality,” said Dave Thompson, MDOT roadside development manager. “However, introduced species rapidly take over an area by outcompeting natives. Johnsongrass, for example, has a chemical compound in its roots that interferes with the growth of other plants.”

Jeanne Jones, coinvestigator of the project and wildlife ecology and management professor, said mowing once a year in late fall — instead of mowing twice a year — would allow native species to reach maturity and release their seeds.

“Allowing native plants to flourish would also be beneficial for wildlife, as it would improve seed abundance for birds and other small animals,” Jones said.

The research team has planted 10 plots with native plants. Five are in drier, upland areas, and five are in wetter, lowland areas.

While the experiment will provide an attractive display on the roadside, there is a concern that the abundance of vegetation and reduced mowing may attract deer and result in more collisions. Researchers set up trail cameras to monitor white-tailed deer and other wildlife in and around the research plots. They also are conducting “spotlight surveys,” in which the researchers use high-beam lights at night to spot and count deer.

To discourage deer and other wildlife on the roadside, researchers planted less palatable native grasses and wildflowers. They planted other native plants that attract deer in wet areas that are away from roads to reduce the risk of vehicle collisions.

“The results of the study will add to MDOT’s information base and provide useful data and potential options for best managing vegetation along Mississippi’s roadways,” Thompson said. “The project demonstrates how MDOT must often balance competing interests, in this case promoting native species and protecting water and soil quality while maintaining driver visibility and safety.”

The project will be completed in a year, but the benefits of native vegetation on the roadways will be lasting.
Two U.S. Department of Agriculture officials visited Mississippi State University to encourage students to consider careers that promote local agriculture.

USDA Deputy Secretary Kathleen Merrigan discussed the “Know Your Farmer, Know Your Food” initiative, which promotes connecting farmers and consumers with students and faculty. The initiative also emphasizes the need for recruiting a younger generation of professionals in the agricultural industry.

“We know that we must lay a new foundation for economic growth, create jobs, and build and revitalize critical infrastructure here in Mississippi and in rural communities across America,” Merrigan said. “The ‘Know Your Farmer, Know Your Food’ initiative supports and establishes local and regional food systems as an economic development strategy to keep wealth in local communities and link the agricultural community to new markets, while increasing access to healthy food for local consumers.”

Merrigan feels strongly about the need for this type of program.

“In my professional lifetime, I have never seen such consumer interest in American agriculture as there is right now, and a lot of it’s around regional food systems,” she said. “People want to know where their food comes from, who produced it and how it was produced. And I think that presents a great opportunity for farmers and ranchers in this country to get together with consumers and talk.”

Merrigan said the initiative promotes more farmer-consumer interaction and educational programs in public schools.

One example of how farmers can get involved, Merrigan said, is to participate in local farm-to-school programs that enable schools to feature healthy, locally sourced products in their cafeterias. USDA has developed programs that incorporate nutrition-based studies, as well as food-learning opportunities such as farm visits, gardening, cooking and composting activities.

Merrigan also explained to MSU students why USDA is working to recruit young professionals.

“What we know right now is the average age of farmers in this country is 57, and 30 percent of farmers are over the age of 65,” she said. “We’re about to see a mass of transition in American agriculture.”

Acting Undersecretary for Farm and Foreign Agricultural Services Karis Gutter, a Mississippi native, said the USDA hiring and application processes are now streamlined and simplified.

“We know that there’s a need for jobs out there, and we’ve got them. What we want to do, though, is match solid talent with solid opportunities,” Gutter said. “By tapping the ag programs at some of our land-grant colleges, we can definitely fill that need with the unique talent that’s out there. We struggle mightily to get good young people who have ag backgrounds and rural experiences, yet want to come to Washington or work elsewhere throughout the country at USDA.”

USDA officials believe that putting the “Know Your Farmer, Know Your Food” initiative into action and recruiting motivated graduates will not only benefit farmers, but also all businesses associated with rural communities.
MSU Students Have Answers for

“Where’d you get that dress?”
Visitors to Phyllis Bell Miller’s visual design in dress class find plenty of recognizable items on display, just not items they associate with clothing.

But student designers in this MSU School of Human Sciences class do. They use the elements and principles of design — color, texture and repetition — and creativity to make clothing and accessories from everyday objects like football tickets, car seats and coffee cups.

Take for instance the caffeinated dress on display in the room’s entrance. The top of the dress is made of Starbucks coffee-cup holders, each containing the words “stories are gifts.” If this novel of a dress could speak, it would likely speak very quickly, flitting from place to place in a double shot of espresso kind of way.

Self-described coffee fanatic Maegan Bedells designed and created this Starbucks-themed dress, called “Café Holiday.” It won first place in the 2011 Renew Again Visual Design in Dress Design Competition, which is open to members of the class. The skirt is covered with coffee filters cut into snowflakes, while the back of the dress is decorated with coffee stirrers.

Who would want to wear such a dress?

“Somebody who would want to look high-fashion at a cocktail party,” said Bedells, a freshman double major in art and apparel, textiles and merchandising from Clinton. “I will probably wear it.”

The dress was one of many designs in Miller’s popular annual class. This year, the College of Agriculture and Life Science’s associate professor included a twist to the course’s main project — “repurpose” recycled materials and other objects into clothing.

A major trend throughout the fashion world, “repurposed” clothing came to the public’s attention largely through the popular television program “Project Runway.” Miller said she let students use as much imagination in their clothing projects as possible, only requiring the created clothing come from other materials.

“They always use a lot of creativity,” she said. “I let them do whatever they want.”

With the bulk of the class composed of freshmen and sophomores, each student drew on personal experience and ideas they thought might turn into interesting clothing.

Sarah Johnson, a sophomore from Brookhaven, designed a vest she calls “Ever Lasting” from the gray leather interior of a car back home. A friend who upholsters cars helped her find the material.

“It was just an old seat that he had,” said Johnson, who would like to have her own clothing store and line of clothing at some point after graduation.

Scanning the classroom, a dress made from MSU student football tickets, a necklace made from a bicycle chain, and a one-shouldered, pleated dress made from newspapers and garbage bags were examples of the students’ creativity and design skills.

Each year, judges selected from MSU and industry professionals choose the top designs in the competition. This year’s judges included Jerome Gilbert, MSU provost and executive vice president; Beth Miller, director of MSU’s interior design program; and Sherry Mulne of Columbus, Ohio, director of the PiPN internship program of the National Needlearts Association. About a dozen of the top designs were displayed in the MSU Mitchell Memorial Library and at other locations across campus, Miller said.

When asked how this project will assist students after graduation, Miller said that it forces them to use the elements and principles of design instead of guesswork when creating and judging garments and accessories. This experience will help them in all areas of the fashion business and throughout their careers.

“These are the tools that can turn someone with raw talent into a great designer or artist,” she said. “The elements and principles of design help designers to generate an endless number of creative solutions.”
When JoVonn Hill stepped out of his vehicle in a cedar glade near Nashville, the first insect that crossed his path was a grasshopper never before identified.

Hill, a Mississippi Agricultural and Forestry Experiment Station research associate, was participating in a July 2009 expedition to catalog the insect life in the unique glades of the Cedars of Lebanon State Park in Tennessee.

“Literally, the first specimen I collected was a new species,” Hill said. “When I saw it, I knew that it was something good. I’ve seen a lot of grasshoppers, and it didn’t look like any I’d seen before.”

He gave the grasshopper the scientific name *Melanoplus ingrami*, honoring Wayne “Buddy” Ingram, an interpretive officer and naturalist at the Cedars of Lebanon State Park. Ingram has extensive knowledge of the area and was very helpful to Hill on several trips to the park.

Hill works at the Mississippi Entomological Museum at Mississippi State University. He said the museum focuses on insects living in the natural, open areas of the Southeast. The staff works continually to catalog insect life, surveying natural, open areas for insects and conducting exotic and invasive insect research.

Each year, museum staffers go on a weeklong expedition to collect insects in an area of the Southeast. In 2009, they chose the habitat near Nashville. Hill said much attention had been given to the animal life and diverse plant life, but insects had received little attention.

“We went to see what was living in this habitat,” Hill said. “It is unusual to find a large insect that has not been discovered and named, especially one living right outside Nashville, a highly populated area.”

Hill collected several specimens of the grasshopper on this and several other trips over the next year. About 130 grasshopper species are found in the Southeast, so he tried to identify the insect when he returned to the museum. Later, he compared his specimens to the grasshoppers in the Smithsonian collection in Washington, D.C., and visited the museum of the Academy of Natural Sciences in Philadelphia.

“They have the largest, most important collection of grasshoppers in the Western Hemisphere,” Hill said. “I started examining drawers of grasshopper specimens, and it wasn’t any of the grasshoppers there. No one that I showed it to had ever seen it before, either.”

To the untrained eye, the grasshopper looks much like many found commonly in Mississippi. Hill said it is a small, tannish to gray-colored, short-winged insect. It is abundant in the cedar glades of central Tennessee. These glades, found on shallow limestone soils, are open areas with unique vegetation surrounded by cedar trees.

Confident that he had found a new grasshopper species, Hill wrote a description of it, took measurements of several specimens, and photographed and drew the insect.
This information was published in an article in the Journal of Orthoptera Research 2010. Publication in this peer-reviewed journal established the grasshopper as a new species.

Richard Brown, director of the Mississippi Entomological Museum, said while it is not unusual to find new species of small insects in the United States, it is unusual to find a larger insect such as a grasshopper.

“Entomologists at MSU have been finding and naming new species for the last 100 years, and this includes several hundred species of beetles, moths, leafhoppers, wasps and other insects,” Brown said. “JoVonn and four others currently on the staff of the Mississippi Entomological Museum have described and named about 20 new species in recent years.”

Brown said each species, from the smallest microbe to humans, plays an important role in maintaining biodiversity and keeping the Earth healthy.

“If parts of this biodiversity are lost, then habitats are changed, and the Earth cannot function as well,” Brown said. “In recent years, bio-prospecting insects and other organisms has become an important way to obtain natural products, such as pharmaceuticals, that benefit humans. We have no idea what natural products may be obtained from grasshoppers, but even without direct benefit to humans, every species of grasshopper has a unique role in the habitat where it occurs.”

Hill holds bachelor’s and master’s degrees from MSU and is a doctoral student in the MSU Department of Biochemistry, Molecular Biology, Entomology and Plant Pathology. He has studied grasshoppers for the past 11 years.
Eleven young women visited Mississippi State University to learn how to turn their passion for wildlife into rewarding jobs at the first Conservation Careers Discovery Day.

The girls went to the Noxubee National Wildlife Refuge to get hands-on experience in orienteering, GPS technology and conservation of endangered species. Members of the professional organization Mississippi Women in Natural Resources (MWNR) served as the all-female team of instructors. They came to promote their enthusiasm for science while showing participants it is possible to unite their interest in nature with their desire for higher education. MSU Extension Service associate Leslie Burger organized the event because many of MWNR’s members wish they had been offered such an experience.

“We all remember what it was like to be a girl interested in the outdoors but not sure what our options were, whether we could measure up, or whether we’d fit in with all the men,” Burger said. “We want to show these girls that it can be done.”

When boys were the primary attendees at similar coed events, Burger saw the need for an all-girl event. George Hopper, dean of the MSU College of Forest Resources, agreed to sponsor the event to encourage young women to enter natural resource fields.

“Research has shown that girls perform better in math and science when they are in same-gender classrooms,” Burger said. “We believe there is an interest in these topics in teenage girls, but the intimidation of participating in an outdoor-based event in the presence of boys may be keeping them away.”

Participant Alexis Webber of West Point said she valued the girls-only event.

“What I really wanted from this experience was to get over my fear of things that slither,” Webber said. “With girls, it’s a peaceful environment, watching birds, going on a hike, and seeing spiders and toads. It’s nice to get to know each other.”

The day’s activities also gave Webber a clearer goal for her future.

“I thought I wanted to do wildlife biology, but now I’m thinking I want to focus on birds,” Webber said.

At the Larry Box Environmental Education Center, Burger’s organized instructional teams packed the day with a wide range of activities designed to teach participants about various areas of study, from aquatic ecology to...
ornithology. A picnic lunch, nature-based art experiences and a canoe trip balanced out the intense focus on scientific topics.

Events like Conservation Career Discovery Day offer more than information and hands-on experiences.

“It’s critically important during these high school years, which are often filled with self-doubt, that young women receive support and encouragement from family, friends and teachers,” said Joan Herbers, president of the Association for Women in Science. “The perception that women can be scientists and can do anything will always make a difference in the lives of girls interested in following their dreams of careers in scientific fields.”

With representatives from a variety of federal, tribal, state and county organizations, the young women were able to see career options beyond park ranger or zoo worker.

“We want them to wake up looking forward to the day’s work, whether they choose a career in conservation education, wildlife research, land management, wildlife enforcement, human-wildlife conflict or wildlife veterinary medicine,” Burger said.

“Make it fun,” agreed Mitzi Reed, a biologist with law enforcement responsibilities for the Mississippi Band of Choctaw Indians. “If you enjoy it, it’s not work.”

Participant Shaina Keene of Little Rock, Miss., is no stranger to the outdoors. She is involved in hunting, fishing and Future Farmers of America. She is also a member of the Newton County FFA forestry judging team and the 4-H Shooting Sports pistol team.

“I want to be a game warden, because I believe that wildlife needs to be managed and protected to be beneficial,” Keene said. “I wanted to come to Discovery Day to find out what I’m in for.”

Burger and her colleagues said they hope that the impact of the program will extend beyond the one-day event.

“We’d like to form mentoring friendships with these girls,” Burger said. “We saw ourselves in each of these young women. We want them to feel free to contact us as they pursue college careers and hope they form friendships with each other so that they don’t feel alone in their interests.”
Tiny soybean cyst nematodes cause big problems for soybean growers, but a Mississippi State University researcher is helping cut them down to size.

The soybean cyst nematode, or SCN, is a small, plant-parasitic roundworm that attacks the roots of soybeans. Affected plants have stunted growth, wilt and often die. SCN has been a problem for Mississippi growers since the 1950s, and there is no known method of eliminating nematodes from the soil. Growers rely heavily on crop rotation and other farm management techniques to minimize damage.

The dilemma has researchers interested in developing new soybean varieties. Vincent Klink, assistant professor of biological sciences at MSU, has been studying how soybean plants react to nematode infection with the goal of developing a resistant variety.

“It’s a matter of what genes are ‘turned on’ to fight a nematode infection,” Klink said. “Once we know what genes are involved in an infection or resistance to SCN, we can place them into a plant, making a variety that is resistant.”

Klink first infects soybean plants with SCN and then cuts individual cells from the plants with a laser beam. Under a microscope, Klink can see what genes are playing a part in fighting the nematode. Klink plugs the data into a computer program to get a list of useful genes.

“We then engineer those genes into a plant and infect the new plant with SCN,” Klink said. “We compare those plants fighting an infection with the engineered gene to plants without the gene.”

It could be a few years before the new varieties Klink is developing will be fully tested and commercially available, but he also is working on other research that can assist farmers with current crop rotation techniques.

There are 16 types of SCN, commonly called “races.” These races differ in their ability to reproduce on certain soybean varieties. Many fields have more than one SCN race in them. One race may be dominant with other minor races present. SCN can change races, depending on the available...
food sources. Therefore, growers must test their soil before planting in order to choose varieties that are not susceptible to the particular nematodes in their fields.

“Typically, an SCN race test takes approximately 100 days,” said Clarissa Balbiani, MSU’s plant pathology diagnostic lab manager. “The testing process requires using the cysts extracted from the soil to inoculate susceptible soybean varieties in the greenhouse. The nematode population increases on these susceptible varieties, and then the nematodes are transferred to a number of standard varieties that are susceptible to specific SCN races.”

After the races are identified, Balbiani and her colleagues provide recommendations to growers about what soybean varieties to plant.

Klink, in collaboration with Gary Lawrence, an associate professor in the MSU Department of Entomology and Plant Pathology, is working on reducing the number of steps and the amount of time involved in the testing process.

“A whole growing season can go by before growers know what SCN races they have in their soil,” Klink said. “To streamline the process, we are basically extracting DNA from the soil to test for specific nematode races. The DNA is actually coming from all of the nematodes that are in the soil samples, shortening the testing time.”

The new test uses a gene marker technique that can identify nematode races in a molecular laboratory in a matter of hours.

“The test that Dr. Klink and Dr. Lawrence are developing can help us offer yet another service to growers,” Balbiani said. “They would have the time to test their soil more frequently to monitor for the changing race populations.”

Enthusiasm for the work is growing, and the Mississippi Soybean Promotion Board (MSPB) is funding the research projects.

“This is some of the most exciting research we’ve heard of in a long time,” said Keith Morton, MSPB member and soybean grower. “We’re farmers facing issues, and we depend on the work researchers do to help us out.”

Soybean farmers like Morton, who with his wife, Beth, owns Morton Farms Inc., are excited about the new possibilities Klink’s tests offer.

“The state is facing millions of dollars in losses because of SCN. On average, we test every three to five years to remain familiar with the SCN races we have in our fields,” Morton said. “Shorter testing times and resistant varieties are going to be a big help to our industry. We look forward to what the research brings.”

“It’s a matter of what genes are ‘turned on’ to fight a nematode infection,” Klink said. “Once we know what genes are involved in an infection or resistance to SCN, we can place them into a plant, making a variety that is resistant.”

Vincent Klink

Submitted Photo
Mississippi Agricultural and Forestry Experiment Station (MAFES) operates a statewide laboratory based at Mississippi State University with research facilities at four Research and Extension Centers and encompassing a total of 16 branch locations. The scientists work alongside MSU Extension Service agents to identify research needs, and help deliver the results to clientele. Everyone from nursery owners and farmers to turfgrass experts and producers across the state and beyond are benefiting from MSU’s research.

Dan Batson

“It’s my first stop,” Dan Batson said of the South Mississippi Branch Experiment Station, which is only a 20-minute drive from his Perkinson nursery. “They always have advice on growing techniques, and they’re especially helpful if I have disease problems. Since they’re so close, they’ll even come to me.”

Batson and Mississippi State University have been collaborating on horticultural projects for more than 30 years. After completing both his bachelor’s and master’s degrees at MSU, Batson logged a year at a Louisiana growing operation before founding GreenForest Nursery on land his family has owned for
two centuries. GreenForest is 140 acres of container trees — oaks, crepe myrtles, magnolias and other species — that Batson sells to landscape contractors. Batson has run GreenForest for 27 years, and MSU experts have become invaluable to him.

“At the Experiment Station, they’re working on Fusarium disease right now. That’s about my biggest challenge,” Batson says.

Fusarium is a fungus that can penetrate the roots, invade the vascular system and poison plants. Warren Copes, a U.S. Department of Agriculture researcher, is analyzing Fusarium at the South Mississippi Branch in conjunction with MSU horticulturist and MAFES assistant research professor Eugene Blythe. Copes also plans to sample from GreenForest’s ponds as he studies a destructive water mold called phytophthora that spreads through irrigation systems.

“Once I complete my research, I work with Dr. Alan Henn so the community can apply my findings,” Copes adds.

Henn, an MSU Extension professor and plant pathologist, helps Copes find funding for field trials.

Anthony Witcher, another horticulturist stationed at the South Mississippi Branch, has worked with Batson on alternative growing mediums. Pine bark — the industry standard — is increasingly expensive and difficult to obtain. With Batson’s blessing, Witcher was able to field-test new growing mediums in real-life situations at GreenForest Nursery.

“It’s a benefit to us, too, because once this research is done it will lead to a much more reliable growing medium,” Batson explained.

Jim Charlie Cobb lives just a few miles from the MAFES McNeill Unit in Pearl River County. However, in the 10 years he’s been practically a neighbor of the facility, he had never paid a visit until the occasion of the unit’s muscadine field day.

“I’d pass by the station, I’d see people planting, and I’d wonder what crop that was,” Cobb said.

The vineyard at the McNeill Unit contains almost every known muscadine variety in existence.

“The vineyard was set up as a repository of muscadine varieties,” said horticulture specialist John Braswell of the MSU
Extension Service. “The field day offered a valuable opportunity to evaluate many different varieties in one location.”

And that’s what Cobb did.

“I tasted several of them — different kinds — and they’re very, very good,” he said. “I’ve seen muscadines and grapes, but I’ve never seen anything like this vineyard before.”

The retired millwright actually came to the field day looking for some advice from MAFES and Extension experts about his own muscadine vines.

“I have muscadines, but they haven’t done too well, and I wanted to find out how to go about raising them, fertilizing them,” Cobb said. “My vines produce the berries, but they’re not making yields like these are.”

The Carriere resident did not leave the McNeill Unit disappointed.

“Yeah, I found out what I need to do,” Cobb said of his visit. “It’s really turned out good. MAFES and Extension do a good job getting information to growers.”

Collaboration between MSU research agronomist Brian Baldwin and Georgia’s self-proclaimed “sodfather” Phillip Jennings may offer the Southeast a viable grassy feedstock to capitalize on sustainable bioenergy production.

One focus of MSU research is giant miscanthus, a warm-season Asian grass that many scientists believe has potential as a biomass crop for fuel production. MAFES researchers have been studying grassy biomass feedstocks for 12 years. Baldwin went a step further in isolating, identifying and selecting a genotype of this species that fits agricultural production systems of Southeastern farmers.

Baldwin’s investigation culminated in the Freedom cultivar, which is uniquely suited to the South. Production of foundation stock for this grass has been licensed to turfgrass magnate Phillip Jennings of Soperton, Ga., who has incorporated his ideas about alternative energy into a new business venture, SunBelt Biofuels.

Jennings, who will have an exclusive license for the giant miscanthus genotype Freedom, said he intends to make the foundation stock commercially available. He said he hopes to have several hundred acres of the stock in production at his turf-grass farm.
Farming has many factors that are beyond growers’ control, including the weather, production costs and market prices. Variety testing, a decades-old research service offered by MAFES, aims to remove some of the unknowns as growers select varieties for the next year’s crop.

Jimmy Sneed, a grower in the Hernando area for more than three decades, described MAFES trials as not just unbiased, but also as “reliable, dependable and statistically sound.” A member of the Mississippi Soybean Promotion Board, Sneed said he uses the MAFES trials as the baseline in making variety selections.

“Growers can take that data and compare it to seed company information and then make planting decisions,” Sneed said. “I want to be able to see how a variety has performed over two or three years. At the end of the day, the bottom line is yield potential and consistency.”

Sneed relies on many of the details in the trials to know what effort went into producing the reported yields. High input may produce strong yields, but they may not be cost-effective.

“We don’t farm to make a crop; we farm to make money,” Sneed said. “That begins with selecting the right varieties.”

MAFES variety trials are available online at http://msucares.com/pubs/crops3.html. Growers can view results from 1994 to the present. Printed bulletins are available at county Extension Service offices.
Mark Terkanian has a new bloom on his hydrangeas thanks to MAFES research that helps greenhouse growers raise the crop’s quality with improved methods of production.

Hydrangeas are an important crop for commercial growers in many states and could gain ground in Mississippi greenhouses because of the cultivation study conducted by MAFES research horticulturist Guihong Bi. Many greenhouses and nurseries could use this information to diversify their operations and perhaps improve the overall quality of their stock, Bi said.

“Dr. Bi sees what we are trying to do, and she puts together a protocol that addresses some of the problems we have in our production,” said Terkanian, general manager of Natchez Trace Greenhouses in Kosciusko. “I’m a grower, and she is the scientist. It keeps us both on track to solve problems.”

Natchez Trace Greenhouses is now producing dormant hydrangea plants, instead of buying them from the West Coast.

Terkanian said he has seen demand for hydrangeas increase in the last five years with no sign of slowing down.

“As a grower, I want to know how things work, particularly if we want to mimic the natural blooming process for hydrangeas,” he said.

In her experiment, Bi treated plants with different rates of nitrogen during their vegetative growth in summer. She applied different chemical defoliants and nitrogen fertilizers in the fall. Initial results indicate that some treatments do not visibly injure plants but actually improve their ability to store nitrogen for bloom development during forcing.

“The information from the study also may apply to other greenhouse and nursery crops,” Bi said. “However, the response of plants to defoliants and fertilization practices is affected by many variables, and growers should conduct proper testing before incorporating any method into production practices.”
Louis Weeks of Delta Seed and Services in Arcola said he has relied on MAFES for rice seed for more than 20 years. He said the biggest change over the decades is in the number of varieties to consider.

“We could get the seeds for some other crops, like soybeans, from private sources, but for rice, we totally depend on universities for foundation seed stocks,” Weeks said. “Whenever possible, I prefer to get my rice seed from MSU. It will be closer to breeder seed than other sources.”

Weeks said growers need to keep up with new varieties that offer better yields. When any university releases a new rice variety, the breeder seed will come to MSU for cultivation.

Weeks said the high quality of the Mississippi Foundation Seed Stock is a result of MSU working closely with the Mississippi Crop Improvement Association. Together they set high standards that pay off for business owners like Weeks.

“MSU doesn’t save me money; it makes me money,” he said. “You can’t take quality seed for granted, and MSU helps by providing the best seed possible. They are providing a tremendous service to the rice industry.”

Weeks said MAFES and the Mississippi Crop Improvement Association set higher standards than most states follow for similar foundation seed programs.

“It is a team effort to set rules and regulations for foundation seed,” he said. “All foundation seeds are good, but Mississippi State’s are simply of a higher quality.”

MAFES established Mississippi Foundation Seed Stocks in 1959.
Financial incentives for property owners to plant and manage their lands for timber production have been around since the 1930s, but many private landowners in Mississippi do not know about them.

These incentives, called cost-share programs, were developed to offset the initial costs for site preparation, tree planting and forest stand improvement.

Private landowners own about 90 percent of Mississippi’s forestland. Out of approximately 125,000 landowners in the state, about 1,000 were interviewed recently as part of a study conducted by the MSU Forest and Wildlife Research Center.

“Our study found that 50 percent were not aware of assistance available to them,” said Edwin Sun, MSU associate forestry professor. “However, considering all private forest landowners, including those who did not meet the criteria for the survey, the proportion of landowners who have no knowledge of these programs is likely much higher.”

Approximately 22 programs are currently offered, but many Mississippians are shouldering the cost of improvements on their own.

“Forestland management can be expensive, and a long period of growth is usually needed before income can be generated,” Sun said. “When forest landowners harvest their land, they face a critical decision: to reforest the land, to let the land regenerate naturally or to use the land for other purposes.”

Many of the cost-share programs were designed specifically to reduce the financial burden on landowners and encourage them to replant their lands after harvest, Sun added. Reforestation is important, particularly in a state that is heavily forested and economically dependent on forest-related industries.

“Cost-share programs allow landowners to sustain their forestland, which in turn improves the environment,” Sun said.

Federal and state governments provide financial incentives to landowners to encourage good stewardship of natural resources. The environmental benefits far exceed the timber that is produced.

“Managed forestland provides many environmental amenities, including soil conservation, carbon storage, wildlife habitats, air and water quality maintenance, and recreational opportunities,” said Charlie Morgan, MSU alumnus and State Forester of the Mississippi Forestry Commission.

Morgan’s agency is in charge of administering the Mississippi Forest Resource Development Program, which is funded by timber severance tax collections.

“Over 1.7 million acres have been enrolled in this program, with $81 million distributed to landowners,” Morgan said. “The program shares the cost for implementing specific forestry practices designed to produce timber and enhance wildlife development in the state.”

Available since 1974, the state’s Forest Resource Development Program was one of the three programs that the sur-
vey asked about. The other major programs were the federal-based Forest Incentive Program and the Mississippi Reforestation Tax Credit.

The Forest Incentive Program was authorized in 1973 and replaced by the Forest Land Enhancement Program in 2002. Despite the name change, its purpose remained the same: to increase timber production and encourage good forest management on private forestland by sharing the cost of tree planting, timber stand improvement and site preparation.

Initiated in 1999, the Mississippi Reforestation Tax Credit promotes reforestation on private lands in the state. While the program does not provide cost-share assistance, participants can earn a state income tax credit for reforestation and other forest improvement practices.

The study found that landowner awareness of incentives was influenced by their gender, how much land they owned, how much regeneration experience they had and whether they were members of any forestry associations. The study also revealed that the assistance programs are helping those who need them most.

Many public assistance programs, including cost-share programs, are involved in debates related to equity, Sun said.

“People ask if these programs are subsidizing wealthy landowners who could afford to invest in forest management without public assistance,” Sun said. “We found that when disadvantaged landowners — those with less acreage, education and income — were aware of the assistance, they were more likely to apply than more advantaged landowners.”

Perhaps most importantly, the study revealed the need for better promotion and implementation of public assistance programs. Scientists and foresters both acknowledge that a useful long-term strategy is needed to make landowners aware of the opportunities.

“Landowners need to join forestry organizations, attend Extension workshops and work with natural resource professionals on a regular basis,” Sun said. “By doing these things, they can learn about the opportunities and better manage their forestland.”

Landowners interested in cost-share programs should visit the USDA Forest Service incentive website at http://www.srs.fs.usda.gov/econ/data/forestincentives or the Mississippi Forestry Commission website at http://www.mfc.ms.gov. Landowners can also contact the Mississippi Forestry Commission service forester in their county.
A museum showcasing the contributions of Mississippians who have participated in America’s largest youth organization is getting a high-tech renovation.

The Mississippi 4-H Learning Center and Pete Frierson Museum is undergoing a transformation of its exhibits, funded by a $120,000 grant from the Mississippi Land, Water and Timber Resources Board. As part of the larger Mississippi Agriculture and Forestry Museum, the 4-H Learning Center focuses on the connection between youth and agriculture. The center receives about 36,000 student visitors per year, mostly from urban and suburban environments.

The addition of new technology will build a bridge between 4-H’s history and its young visitors. Rather than presenting static displays of memorabilia, innovative exhibits will engage visitors in the legacy of 4-H and its impact on Mississippi. Flat-panel screens paired with audio bubbles that focus sound down onto small groups enable guests to hear recorded information without distracting other visitors in the room. Touch-screen computers with interactive programs that teach about 4-H will allow visitors to explore the youth program through a modern platform.

“The goal of this technology is to better enable us to tell the 4-H story. These video productions will allow teachers to bring classes through the museum and give kids a chance to experience 4-H without requiring a full-time staff,” said Morris Houston, Mississippi State University Extension Service 4-H development officer.

“Many of the children who visit have little contact with the agrarian way of life,” Houston said. “We want to make a strong connection between agriculture and their lives.”

To better share the stories related to the arti-
facts and events highlighted in the museum, the new exhibits focus on personal connections.

“We’re creating an exhibit that looks like a young 4-H’er’s bedroom. We’ll put memorabilia on the wall, and the flat-panel screen will show video footage of Mary Jo Wedgeworth and her daughter, U.S. Congressman Martha Blackburn,” said Tiffany Holder, curator for the museum. “Mary Jo Wedgeworth was the 1944 National Achievement Award winner in Home Economics. She donated the set of silver flatware she received in recognition of this award to the 4-H Learning Center and Pete Frierson Museum. Congressman Blackburn credits 4-H with teaching her leadership skills. They exemplify the impact 4-H has on the lives of participants.”

The most popular exhibit since the learning center opened in 2007, the life-size fiberglass cow named MS Cloverbelle, has a new stall in the literacy area.

“All of the kids want their picture taken when they get to milk Cloverbelle,” Houston said. “The experience helps them understand that milk comes from a cow first, then the grocery store.”

In addition to the museum space, the 2,000-square-foot facility houses a multipurpose room used for educational activities. A high-tech display that demonstrates the relationships among different types of soil, wells and aquifers shares space with a portable computer lab for use in environmental education programs.

“The goal of the renovation is to create a place where teachers and children can see connections between agriculture, their everyday lives and the activities 4-H offers Mississippi’s young people,” Houston said.

“These new exhibits will help us continue the work we started when the museum first opened,” added state 4-H program leader Susan Holder. “We wanted to honor the past by collecting and displaying artifacts that show the history of rural Mississippi from a 4-H’er’s perspective. We celebrate the present by showing kids what they can do in 4-H.

“We also wanted to envision the future: where is 4-H going? The museum’s use of technology shows that 4-H is about science, robotics and child-centered experiences in addition to agriculture. Technology also enables us take rural America to a larger audience through the Internet,” she said.

Visitors to the museum will receive information about online lesson plans, interactive learning games, digital archives and social media. These new learning opportunities send the message that 4-H empowers young people to reach their full potential by offering hands-on learning, research-based youth programs and adult mentors who encourage responsibility and community service.

In the “Small Town Mississippi” area, where the 4-H Learning Center is located, visitors can explore the museum’s grounds, see gardens planted with vegetables and walk through a barn for a closer look at chickens and other farm animals.

“It’s important to visit the museum because without knowing where you came from, you won’t know where you’re going,” said Sandy Harvard, director of educational activities at the Agriculture and Forestry Museum. “Visitors should have a better understanding of the history of agriculture, how it impacts our state today and the youth opportunities 4-H offers.”
By Kaitlyn Byrne • Photos by Scott Corey

This year’s Bulldog Classic American Quarter Horse Association (AQHA) Show brought in a larger crowd than in previous years while continuing a tradition that has lasted more than 50 years.

The oldest quarter horse show in Mississippi, Bulldog Classic is sponsored by Mississippi State University and held at the Mississippi Horse Park in Starkville. Mary Hopkins, a rancher and horseback-riding instructor in Vicksburg, played an instrumental role in starting the show in the early 1960s.

Hopkins said horses have been her passion since she was a child, so she has spent her life helping children and adults find opportunities to work with horses. In addition to helping develop the Bulldog Classic, Hopkins also is largely responsible for the creation of 4-H horse programs in Mississippi.

“In 1960, Mississippi State was looking for someone to start a 4-H horse program for children, because up until then, there weren’t any 4-H horse programs in the state,” Hopkins said. “So I told them I would do it if they let the kids show unregistered horses. A lot of families can’t afford registered horses, so allowing unregistered horses really allowed a lot more kids to be able to participate in the shows.”

Hopkins attended this year’s show and was pleased with the increased participation.

“This show is so important to me,” Hopkins said. “I was here in the beginning when the show first started, so it’s really rewarding to see it is still growing.”

This year’s increased participation was due largely to designating a permanent show manager and using a new price system for entries. In the past, students have acted as show managers, but this year Bricklee Miller, facilities manager at the horse park, took over the job. Terry Kiser, head of the MSU Department of Animal and Dairy Sciences, said having a permanent manager has been a great benefit to the AQHA show.

“We wanted to provide some continuity to avoid a constant change as students graduated and new students took over,” Kiser said. “With Bricklee as show manager, the students get an opportunity to learn under her guidance, and the show doesn’t have constant changes in management.”

Miller said fees for the show are usually around $300, but this year the show had one flat fee of $125.

“By lowering the fee, we tripled the numbers,” Miller said. “It’s a win-win for everyone, and people can afford to bring more horses.”

Susan Cain, president of the Mississippi Quarter Horse Association, said she thinks the new pricing system has increased enthusiasm for the show.

“Having just one flat fee is great, especially when you have several horses to show,” Cain said. “I think everyone loves the new creative pricing idea.”

In addition to reduced show fees, this year participants could preregister online using a credit card.

“We had more people preregister this year than the total number of participants from last year,” Miller said. “The online registration option was a big help.”

Hopkins said she enjoys seeing the continued results of the work she put into developing horse shows decades ago.

“I spent many years praying this show and 4-H shows would grow,” Hopkins said. “It makes me so happy to see this many people here this year. It’s such a blessing.”
1/82: Washington County

MSU in Washington County:
Washington County Extension Office
148 N. Edison Street
Greenville, MS 38701
Email: washing@ext.msstate.edu

The Jim Henson Exhibit is housed in the Washington County Tourist Center/Leland Chamber of Commerce in Leland. The exhibit was given by The Jim Henson Company as “a gift to the people of Leland.” The exhibit features a tableau honoring Kermit the Frog’s birth on Deer Creek.

The Jim Henson Exhibit is housed in the Washington County Tourist Center/Leland Chamber of Commerce in Leland. The exhibit was given by The Jim Henson Company as “a gift to the people of Leland.” The exhibit features a tableau honoring Kermit the Frog’s birth on Deer Creek.

**County Seat:** Greenville

**Population:** 55,079

**Municipalities:** Arcola, Leland, Metcalfe, Hollandale

**Commodities:** Cotton, Corn, Soybean, Rice, Timber, Wheat, Catfish

**Industries:** Mars food, USG, Monsanto-Delta Pineland, Leading Edge, Brown Corporation, Lazy Boy

**Natural Resources:**
- Wildlife, Timber, Warfield Point Park

**History Notes:**
- Washington County was named for President George Washington. Greenville, the seat of county government, was named for General Nathaniel Greene of Revolutionary War fame. Washington County is located in the Yazoo-Mississippi Delta soil area of the northwest part of the state, bordering the Mississippi River and state of Arkansas.

**Attractions:**
- Winterville State Park, Lake Ferguson, Mississippi River

**Did you know?**
- Washington County is the heart and soul of the Delta.

"Here in Washington County, Extension staff works with traditional row crops such as soybeans, corn and rice, but we also have a strong focus on the education and health aspects of this community. We work closely with the school system and Head Start Program. Helping provide quality education to our youth is a primary goal. We also teach a variety of nutrition programs and provide restaurants with food safety education courses."

**Alma Harris,** Extension County Director
Wilkerson to Lead MSU-Based State Water Resources Institute

An associate professor of landscape architecture at Mississippi State is the new director of a research institute at the land-grant university focusing on economic and environmental issues affecting water resources.

Wayne Wilkerson will lead the Mississippi Water Resources Research Institute. Appointment of the MSU alumnus is pending approval by the Board of Trustees, State Institutions of Higher Learning.

One of more than 50 established nationwide in the 1960s, the institute provides a coordinated research and development program to find solutions to water and water-related land-use problems in the state and region. Its projects address a wide range of concerns, including economic development, drinking water quality, groundwater sources, and aquifer and watershed management, among others.

Wilkerson, who received MSU bachelor’s and master’s degrees in 1975 and 1978, respectively, joined the landscape architecture department in 1999. He currently coordinates the department’s research and graduate programs.

Wilkerson taught previously at Louisiana State University, where he completed a second master’s in 1988. He is a registered landscape architect and a member of the American Society of Landscape Architects and International Association of Landscape Ecologists.

Wilkerson has been very active in water-related research throughout his career. He has worked closely with professionals within and outside the university in collaborative research and outreach efforts. His current research focuses on producing computer models that enable the development industry to design and build more resilient and sustainable communities. This work is supported through a grant from the Northern Gulf Institute, an MSU-led research consortium.

Wilkerson is a member of the steering committee for the MSU Healthy Watersheds, Healthy Oceans, Healthy Ecosystems working group comprised of more than 30 faculty and staff from 10 departments across campus. He also has been involved in several multidisciplinary projects sponsored through the MSU Geosystems Research Institute focusing on issues impacting the natural and economic resources of Mississippi watersheds. Among them have been the development and copyrighting of a spatial-decision support system to help public agencies assess the hydrologic impacts of large industrial developments.

Threadgill Named Extension Leader

When Paula Threadgill became state program leader of Family and Consumer Sciences (FCS) for the Mississippi State University Extension Service on Jan. 1, she decided to tackle the state’s obesity problem.

“We in Family and Consumer Sciences would love to help reduce the obesity rates in the state. Achieving and maintaining a healthy weight can positively affect many areas of life,” said Threadgill, an Extension professor who had served as interim FCS state leader since April 2010.

“My role is to provide leadership to the FCS area agents across the state and to gain support from stakeholders so they can understand our programming and the importance of what we do,” she said. “Our challenge is to educate the people of the state about what FCS can offer. We have a whole generation of people we’d like to reach.”

Gary Jackson, director of the MSU Extension Service, said Threadgill brings a wealth of knowledge and experience to the position.

“She achieved an excellent professional record as a field agent in the Alabama Extension system prior to coming to MSU,” Jackson said. “She also served as a faculty member in the School of Human Sciences and as a district administrator prior to being named state program leader for Family and Consumer Sciences. She understands and champions Extension and will serve as an effective leader for our FCS programming.”

Threadgill oversees the work of 42 people with responsibilities in various FCS programs. One of her challenges is to use the program’s personnel and resources wisely so the public knows what services are offered and can benefit from them. Topics addressed within FCS include nutrition, family issues, financial management, food safety and health education.
“One of my goals is to try to get enough support from the Legislature so we can hire more FCS agents across the state,” Threadgill said. “There is a need, especially in the Delta, for food safety and nutrition programming.”

MSU Leader Honored with Extension Award

Lionel “Bo” Beaulieu received the 2011 Excellence in Extension award for his significant accomplishments as director of the Southern Rural Development Center (SRDC) at Mississippi State University. This award from the Southern Rural Sociological Association (SRSA) recognizes the contributions of members in extending the work of rural sociology in the South.

“A fundamental interest of the SRSA is social justice, as seen through various disciplinary lenses and approaches, with focus on the South,” said Tom Gray, a U.S. Department of Agriculture official who chairs the SRSA awards committee. “We believe this focus to be particularly appropriate and poignant, given the socioeconomic context of the region and the various legacies left in a history of oppression. Dr. Beaulieu’s dedicated work at the Southern Rural Development Center and Mississippi State exemplifies these commitments.”

While serving as the director of the SRDC since August 1997, Beaulieu has authored numerous publications that address rural education, economic development and labor force issues in America. He is also a professor in the MSU Department of Agricultural Economics.

“The Excellence in Extension award is very befitting of Dr. Beaulieu’s professional career,” said MSU Extension Service Director Gary Jackson. “This recognition is great for him, the Southern Rural Development Center, the university and the Extension service.”

MSU Department Head Receives Top Honor

Steve Turner, head of the MSU Department of Agricultural Economics, received the 2011 Southern Agricultural Economics Association (SAEA) Lifetime Achievement Award at the organization’s annual meeting in Corpus Christi, Texas.

Turner was chosen for the award because of his significant contributions to Southern agricultural economics over the past 25 years through teaching, research and public service. John Lee, former head of MSU’s agricultural economics department, nominated Turner for the award.

“As department head, Dr. Turner has demonstrated an ability to attract top faculty, inspire successful grantsmanship, raise academic standards and initiate new degree programs,” Lee said. “He also has maintained a high level of faculty and staff morale in the face of major budget challenges.”

George Hopper, interim dean of the College of Agriculture and Life Sciences, said Turner’s personal commitment to academics, volunteerism and professional organizations is an asset to the university community. Turner served on the SAEA board and was the organization’s president. He also helped create the SAEA Student Section and popular Student Quiz Bowl.

“Dr. Turner truly cares about learning and leadership activities,” Hopper said. “He serves as an excellent ambassador for the university.”

Turner said he looks forward to continued involvement in teaching, research and administration.

“Receiving this award has been humbling,” Turner said. “Although the award is about lifetime achievements, I hope I have many more years in my career. There is much more to do, and Mississippi State is a great place to make contributions.”
Stephen and Dava Imes of Columbus will always remember their cat Mac as being one of a kind, and they are ensuring his legacy lives on through a Mississippi State University College of Veterinary Medicine scholarship.

Mac was a Maine coon cat, a breed known for its large size, long coat and intelligence. Mr. Imes said he first saw Mac nine years ago in South Carolina and knew right away that Mac was something special.

“Mac talked to me in his own way, and we developed a kind-of language. We understood each other completely,” he said. “He used different sounds to communicate what he wanted, and I responded. I’ve never seen such a laid-back cat.”

Mr. Imes recalled how Mac would use a deep, guttural sound to make requests.

“Mac didn’t like to drink water out of a bowl; he wanted his fresh from the spigot or faucet. He’d basically ask me to turn on the water for him,” he said. “Mac was also known for performing tricks. He could stand on his back legs or sit completely still if I asked him.”

Their local veterinarian referred Mac to MSU’s veterinary college when the cat became ill with a heart condition known as hypertrophic cardiomyopathy. After his first visit, Mac quickly became known at the college for his outstanding personality.

“I remember the first time I saw Mac,” said CVM intern Dr. Krista Gazzola. “Mr. Imes carried Mac in under his arm. He was a calm, obedient cat and one of the sweetest I have ever met.”

Gazzola and fourth-year veterinary student Hanna Cook took care of Mac during his last 24 hours.

“Mac was suffering from respiratory distress and acute loss of function of his hind limbs during that last day,” Gazzola said.
“As sick as he was, he would still ‘talk’ to us when we were caring for him. He really let that personality of his shine through.”

Mr. Imes got to know the CVM clinicians and staff during his many trips there for testing and treatment throughout Mac’s illness. He and his wife are thankful to them for their expertise and compassion.

“We saw a lot of veterinarians and vet students during Mac’s visits to CVM,” he said. “Each one of them treated us with respect and gave Mac the kind of care someone would give their own cat.”

After Mac lost his battle with his illness, the couple decided to honor the veterinarians who cared for him through the Mac, Stephen and Dava Imes Endowed Scholarship. The scholarship will be awarded to a junior or senior full-time CVM student, and priority will be given to those who show an interest in feline medicine.

“We want to honor the doctors and staff who cared for our Mac,” Mr. Imes said. “I’ll never forget the exceptional care Mac received.”

Mr. and Mrs. Imes said they hope that the scholarship will also help keep Mac’s memory alive.

“Mac deserves the recognition,” Mr. Imes said. “You just don’t run across a cat like that but once in a lifetime. He was my buddy, and he won’t ever be forgotten.”

In further appreciation for Mac’s care, Mr. and Mrs. Imes have specifically honored the dedication and professionalism of Dr. Krista Gazzola with a contribution to “Homeward Bound,” a program she initiated.

“Homeward Bound” transports healthy pets housed in Mississippi shelters to homes and shelters in other states for placement and adoption. Gazzola and several of her former CVM classmates, Sara Rose Knox, Allison Bliss and Megan Caulfield developed the program because of their concern for the number of dogs and cats euthanized in state shelters.

Through the program, dogs and cats are examined and treated for contagious diseases and behavioral problems to increase their chances of adoption. The program partners with the Columbus-Lowndes Humane Society and gives MSU veterinary students real-world experience.

Individually may adopt a healthy pet through “Homeward Bound” with a $100 contribution to the program. Half of the proceeds go to the Columbus-Lowndes Humane Society, and the remainder offsets transportation costs for the nonprofit program. Additional program funding is available through the veterinary college’s Marcia Lane Endowed Chair of Humane Ethics and Animal Welfare.

“Animals, just like humans, deserve caring homes, and every pet we place with ‘Homeward Bound’ is a success story that I will always remember,” Gazzola said.

Alumni and friends may contribute to the Mac, Stephen and Dava Imes Endowed Scholarship and the “Homeward Bound” program with gifts through MSU Foundation.
It’s all in the name. Check it out for news and information from the Division of Agriculture, Forestry and Veterinary Medicine.