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**On the Cover**
This summer’s field day at the Beaumont Horticulture Unit brought out Mississippians interested in growing vegetables for the home table and as a business. The story is on page 18. (Photo by Ned Browning)

**Back Cover**
A Mississippi State CVM graduate operates an animal hospital where accommodations are state-of-the-art and the rule is “No dogs Allowed.” The story is on page 14. (Photo by Tom Thompson)

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During the summer, anyone who works at a university is often asked, “Is campus really quiet with all the students gone?”

At Mississippi State, we never have much of a summer slowdown. Summer school brings thousands of students to campus, and athletic, cheerleader and other camps add hundreds more to the mix almost every week. Summertime activities in the Division of Agriculture, Forestry and Veterinary Medicines have included 4-H events that brought hundreds of young people and their adult leaders to campus and the Mid-South Forestry Equipment Show, which was attended by more than 6,000 people from throughout the nation. A group of Farm Bureau young farmers also visited the Starkville campus during July for updates on research, facilities and programs at MSU.

The summer months are also busy at MSU facilities throughout the state. Farmers and homeowners seeking information about crops, ornamental plants and other topics make MSU Extension Service specialists and agents in high demand throughout the growing season. Scientists with the Mississippi Agricultural and Forestry Experiment Station work with row crops, horticultural crops and livestock, all of which require constant attention.

Field days and other events also increase the number of visitors to MSU branch experiment stations during the growing season. These and other events are the topic of the Focus section of Landmarks. Focus begins on page 16.

Of course, the return of shorter days and cooler temperatures does not mean things slow down at MSU. With football in the air, thousands of MSU fans are planning trips to campus, and for many, any visit means a chance to stop at the MAFES Sales Store to stock up on cheese, muscadine juice, ice cream and other MSU products. I hope to see some of you there.
What comes first from the processing of corn—the ethanol in the car, the egg in the refrigerator or the enhancements in plastic lumber?

Mississippi Agricultural and Forestry Experiment Station scientists are working with a manufacturing process that can generate materials for all three products at the same time. Commanding the most attention is ethanol, which is made from the starch in corn. The manufacturing process to make the fuel also yields a byproduct known as “distillers dried grains with solubles” (DDGS). This byproduct—a mix of protein, fat and fiber—is used primarily as a nutritional supplement in cattle feed.

Radhakrishnan Srinivasan, a MAFES bioenergy scientist, is developing a technique to separate the protein, fat and fiber in DDGS. Meanwhile, poultry scientist Alex Corzo and wood composites scientist Sheldon Shi are investigating potential markets for these materials in the poultry and forest industries. If their work is successful, rural economies that have benefitted from ethanol manufacturing may see more profits from sales of other valuable materials.

“Ethanol production in the United States has increased fivefold within the last few years and continues to climb,” Srinivasan said. “For every pound of ethanol produced, nearly 1 pound of DDGS is produced, but its market has not expanded.”

Government mandates for ethanol use have strengthened domestic demand for corn and tightened the supply. To secure corn needed for feed, poultry mills are paying higher prices. They are scrambling to find alternative sources of the protein and energy that corn provides.

DDGS could be an alternative ingredient, but chickens cannot digest its fiber well and feed manufacturers cannot easily shape it into the pellets that chickens prefer. DDGS without fiber would serve as a plentiful, affordable source of protein and energy.
in poultry feed. The enhanced DDGS would also help mills contain their production costs.

Forest products manufacturers also want to control costs and would welcome alternative, inexpensive materials that add strength, durability, beauty and lightness to wood composites. The fiber yielded from the separation of DDGS could be used in wood composites, but it would have to be free of protein and fat. Any protein and fat residues could cause decay.

Technology to separate the protein, fat and fiber in DDGS must be developed before new markets will open. Srinivasan has taken on this quest.

“Most corn-to-ethanol plants are farmer cooperatives, and their financial resources are limited,” said Srinivasan, an assistant research professor in the Department of Agricultural and Biological Engineering. “If the plants are going to modify their current operations, they need technology with low capital investment to minimize financial risk and uncertainty.”

With support from MAFES and his department, Srinivasan built a pilot plant at MSU to test his separation technique, the “elusieve process,” on commercially produced DDGS.

The technique is performed by sifting the DDGS particles into different sizes and then blowing air over them to remove fiber. The name is a combination of the words “sieve” and “elutriation,” which means application of upward airflow. Srinivasan’s Web site, www.abe.msstate.edu/~radha/Elusieve.html, contains videos and documentation on the technique.

The pilot plant can separate the DDGS at a rate of 1 ton per hour into enhanced DDGS and fiber. According to Srinivasan, results have been promising.

“Sieveing the DDGS minimized the influence of particle size on separation,” he said. “The technique also met the criteria of low investment and simplicity because it utilizes standard sifters and aspirators.”

Obtaining good separation of DDGS meant that poultry scientist Corzo could begin measuring the performance of the separated protein and fat in poultry feed. In the first phase of his study, Corzo compared broiler performance using three feed treatments: conventional feed, feed made with unaltered DDGS and feed made with the separated DDGS protein and fat.

“We wanted to know how much of the nutrients in enhanced DDGS was available to the birds, how much of it they retained and how much quality improved,” said Corzo, an assistant research professor in the Department of Poultry Science.

Performance of chickens fed both forms of DDGS compared favorably with performance of those fed conventional feed. However, enhanced DDGS offers the advantage of helping eliminate digestive and manufacturing problems the fiber causes.

Corzo has been working with poultry feed mills to test the effect of enhanced DDGS on the manufacturing process. He is assessing the research data.

“After we look at the nutrition and handling issues, we will be able to determine what the next stage of enhanced DDGS research should be,” Corzo said. “We want to test within a setting that has the management and nutritional characteristics of a typical broiler operation.”

The availability of fiber from the elusieve process also has moved the research effort with wood composites one step forward. It allowed forest products researcher Shi to begin comparing the separated fiber with traditional materials used in wood composites.

Shi is planning to investigate how DDGS fiber can be used with wood powders in polymer composites to improve water and weather resistance. If processed appropriately, the fiber also has potential to improve the bonding interface between natural fibers and polymers, as well as to provide pliability for molding and shaping.

“The use of plastics already minimizes decay in wood products,” said Shi, an assistant professor in the Department of Forest Products. “The addition of fiber could contribute to the stiffness of polymer composites without adding needless weight.”

Shi said he also wants to investigate what other effects DDGS fiber may have on the bonding process. One of the problems Shi identified in his preliminary work is the possibility of minuscule amounts of protein still on the fiber after separation. Protein can affect the ability of the fiber to resist the high temperatures of composite fabrication.

“We want to try different polymer matrices and protein treatments, and perhaps discover another technique to purify the DDGS fiber,” he said.

Shi said he thinks DDGS fiber also could be used in particleboard for furniture and polymer composites. He wants to study the effect on particleboard of replacing some of the wood and other natural fibers with 10 to 20 percent DDGS fiber.

“The market for plastic lumber is growing, and the demand for wood composite products also is growing,” Shi said. “Our goal is to help the forest products industry find materials that are equal to or an improvement over the ones now being used.”
MISSISSIPPI STATE University students are learning a time-honored craft and making use of new tools in the process. Saws, mallets and squares were coupled with books, laptops and flash drives for students who added technology to a craft that dates back to early civilization.

The Wood in Design and Engineering course offered in the spring 2008 semester was a hands-on laboratory in the art of building a timber frame house.

Once a popular construction method, timber frame structures date back to 6220 B.C. In the early 1900s, Sears and similar companies made a mint by selling thousands of timber frame homes through mail order catalogs.

“Timber frame homes were replaced over the years with the stud and platform building style,” said Laurie Grace, forestry professor. “However, the durability, utility, building and function of wood as a material have lead to resurgence in this method of construction, especially in upscale residential and commercial markets.”

With that in mind, it was decided that students in the Wood in Design and Engineering course would construct a timber frame house, Grace added.

“Working a piece of rough cut wood to finished product allows students to see firsthand how man-made and natural forces, both positive and negative, affect the lumber produced from a tree,” Grace said. “That is, in fact, what we want forestry students to understand, not just in principle but in actual application.”

Sweet gum trees from the university’s John W. Starr Memorial Forest were cut and sawn into 4-by-4 and 8-by-9 timbers.

“The plans were to build a 16-foot by 32-foot building in two sections; however, shortage of longer lumber lengths forced a design change to a 16-foot by 48-foot building in three sections,” Grace said.

Sweet gum lumber is not typically used in home construction, which provided a learning opportunity in itself.

“The actual working of wood brings to light the many theoretical practices discussed in books but seldom seen or experienced,” Grace said.

Species differences, growth rates, grain patterns, fire damage, storm damage, insect damage, how the log was sawn, and even knots impact the usability of the lumber in ways that previously were not fully realized, Grace added.

Students with previous construction experience even found the project challenging.

“Timber frame structures are designed so that each member interlocks with other members of the frame with each joint individually carved and fitted,” said Lance Stewart, a doctoral candidate enrolled in the course. “We could not use nails or staples as fasteners, and since the parts are fabricated to fit, there is little room for error.”

Also, since the parts are not interchangeable, simple defects in a piece of lumber can cause problems. This requires thinking several steps ahead, Stewart added.

Nine undergraduate and graduate students and their friends worked on the pieces during nights and weekends in forestry professor Bill Stuart’s shop. The final assembly included 275 finished pieces and was erected in 3 days.

The structure was used for the first time in June at the Mid-South Forestry Equipment Show, where continuing education courses were held for loggers and professional foresters.

It will remain as a permanent structure on the John W. Starr Memorial Forest for demonstration and to determine how sweet gum lumber performs in this application.

“The structure will also allow scientists to determine the durability of timber frame construction in the modern environment,” Grace said.

This type of project has potential for development in Southern markets, creating business opportunities for small firms in rural communities that would require low initial capitalization and add value by using semiskilled labor and low-value timber, Grace added.
The Mississippi State University Extension Service has launched a one-stop information shop on the MSUcares.com Web site focusing on imported fire ants.

Extension entomologist Blake Layton developed the site located at http://www.MSUcares.com/insects/fireants. He grouped content according to various control situations: home lawns; home gardens; organic control; indoor invasions; commercial sod and nursery stock; pastures, hay fields and barnyards; commercial fruit, nut and vegetable operations; and commercial turf (golf courses, athletic fields and public landscapes).

“Extension professionals address numerous questions and complaints about imported fire ants,” he said. “While fire ants are a common problem, outbreaks of these pests occur in many different situations and require specific management techniques.”

Layton divided information on the life cycle of imported fire ants into sections on facts, biology, stinging, control, tips for baits and identification of ant species in the Southeast.

“We included biology information because it helps people understand how and why certain control methods work,” Layton said.

The identification section is linked to a Web page created by MSU entomology illustrator Joe MacGown. The link contains information on more than 150 ant species in Mississippi.

Layton developed the site’s content during 6 weeks of intense writing and research. He enlisted help from colleagues in composing photographs and graphics that would reflect important control concepts.

“Imported fire ants are probably the most common insect pest in Mississippi,” he said. “We created the site to help consumers, professionals and commercial operators manage imported fire ant populations in their particular situations.”

Site visitors can click on a link to the U.S. Department of Agriculture Animal and Plant Health Inspection Service’s quarantine map showing the infestation of the fire ant across the United States. The federal quarantine requires plants produced in infested areas to be treated for imported fire ants before being shipped to noninfested areas.

“Sod farmers and nursery operators are not allowed to sell their material if it is infested with imported fire ants,” said Extension area horticulturist Wayne Porter. “This Web site provides a one-stop reference to address imported fire ant control strategies specific to a producer’s operation.”

The site debuted the first week of February and already has assisted many individuals dealing with problems that imported fire ants cause.

“Having a comprehensive site on imported fire ants will allow Extension staff to serve more people who have control problems,” said Wayne County Extension agent Allen McReynolds.

“When one person has an outbreak, others have them, and everyone wants help.”

Smith County Extension agent Jeremy Maness said the Web site provides an advantage in managing imported fire ant problems.

“We now can tell our clients with Internet access to go to the MSUcares.com Web site and get up-to-date information on control,” he said.

Copiah County resident Kelly Parks, a member of the Adams County Master Gardeners, said a horticultural professional told her about the site. She said she plans to pass along the site’s address to other people she knows.

“Including all of the information on imported fire ants in one location is much easier than trying to search for it,” she said. “It’s also going to be easier to remember one Internet address than to try to recall several.”
The Homestead Act gave the Eubanks family 165 acres in 1896, and that acreage—which has grown to 1,000 today and is still in the family—is being farmed in ways that were not even dreamed of 100 years ago.

Allen and Janice Eubanks own Eubanks Produce Inc. in Lucedale. They operate a large-scale produce farm in rural George and Greene counties, and name Wal-Mart as one of their biggest customers.

The farm is active almost year-round, growing strawberries, squash, bell peppers, cucumbers, eggplant, tomatoes, specialty peppers, cantaloupes, cabbage, watermelons and onions.

“We grow something 11 months a year,” Janice said. “We take vacations in July.”


“Dad grew cattle, beans, corn and some watermelon. Growing soybeans and corn was a dead end, so I started messing with produce,” Allen said. “I had about 100 acres the first year and I picked and hauled it all myself.”

Janice graduated in 1992 from the University of Southern Mississippi with a degree in computer science. They married in 1993 and have three sons and a daughter ages 10, 9, 4 and 2. Both Allen and Janice are volunteer 4-H leaders, and two of their children are in 4-H.

Janice has managed the office, financial decisions and personnel since 2003. Allen manages the farm and handles sales.

“He has his areas he covers in the business; I have mine,” Janice said.

“We wear a lot of hats,” Allen added.

Kerry Johnson is an area horticulturist for the Mississippi State University Extension Service. He met Allen and Janice when they were in 4-H and he was the agriculture agent for George County. Later, he had a class at MSU with Allen while Allen was working on his bachelor’s degree and Johnson had gone back for graduate work.

“Allen has tried some of the new technology and been willing to be innovative and experiment with it,” Johnson said. “His operation is very advanced and runs as well as any major produce farm in California or elsewhere.”

Among the innovations used at Eubanks Produce are black plastic mulch and drip irrigation. Soil fumigation is used to combat insects and diseases before crops are planted.

“We embrace whatever helps us be successful,” Allen said.
Eubanks Produce has a permanent staff of seven, but it hires as many as 175 farm laborers to do the hand planting and harvesting required of most produce crops. These are migrant workers from Mexico who are legally in the country with work visas.

Eubanks Produce participates in the H2A program, which allows them to request a certain number of visas. They pay a fee per person, then pay that worker’s wages and provide transportation and housing. They are monitored by the state Employment Security Commission, and the housing must pass an annual inspection on minimum square footage requirements, stoves, refrigerators and other amenities.

“We have a base of about 60 to 70 percent who return every year from Mexico to work with us again,” Janice said.

Even though the farm laborer jobs are advertised locally before migrant laborers are hired, the Eubanks have not yet had an American accept one of these positions.

While migrant workers are expected on produce farms, Eubanks Produce has one nontraditional position. In 2004, they hired a full-time food safety inspector.

“We were the first farm in Mississippi, Louisiana and Alabama to be certified in food safety,” Allen said. “We follow the Good Agriculture Practices guidelines in planting, harvesting, growing, packing and shipping.”

While a lot of companies want to see this GAP certificate before doing business with Eubanks Produce, they do not pay a premium for this food safety assurance.

“I just want quality food. There is still that chance that something could happen, so this person oversees chlorine baths for equipment, checks for open wounds on the workers’ hands and does other things like that,” Allen said.

The farm sprays preventively for insects and disease and sends leaf samples to a lab weekly for analysis.

“The healthier the plants, the less likely they are to get disease,” Allen explained.

The farming operation is large. In addition to 1,000 acres in production—of which the family owns about two-thirds—there is a 34,000-square-foot packing house and 13,000 square feet of coolers. Nine buildings provide migrant worker housing.

The farm has had contracts with Wal-Mart since 1997 and now sells some of every product grown to the mega chain. Produce goes as far as 1,100 miles for distribution from Ft. Worth, Chicago, Detroit and southern Wisconsin.

“Everything is hand-picked,” Allen said. “Well more than half of each day’s harvest is shipped out the same day it is picked. All but watermelons require cooling, which can extend the shelf life three to four days.”

Quality control is closely monitored in the picking and packaging stages.

“People have gotten used to not seeing spots in a retail store,” Janice said. “If it’s not perfect, we can’t sell it.”

The Eubanks’ “you-pick” operation covers 80 acres and includes a large variety of popular garden vegetables. These are sold by the bucket, in most cases, at prices cheaper than the grocery store offers.

“We have 400 to 500 cars out here on opening day. Customers come from a 100- to 150-mile radius to pick fresh produce,” Allen said.

Labor is the farming operation’s biggest cost, followed by shipping and fuel expenses, and then packaging, which counts for 10 percent to 20 percent of the overall cost.

While profits are important, they are not all-consuming. The farm participates in the Gleaning Network of the Society of St. Andrew, a humanitarian organization.

“After the crop is harvested, we call them to come pick what is left of the cabbages or cucumbers to give to food banks,” Janice said.
The College of Veterinary Medicine’s ambulatory service is catching on as a win-win opportunity for students and owners of large animals in the Starkville area and beyond.

Dr. David Christiansen, assistant professor in the Department of Pathobiology and Population Medicine, is spearheading the mobile service, which got under way in the fall of 2007. A fully equipped truck is available to take veterinarians and students off campus for routine or emergency care of horses, cattle, small ruminants and swine.

“We are slowly expanding our efforts as news of our availability is spreading by word of mouth,” Christiansen said. “Since the college was opened, we have done ‘field services’ that largely addressed the university’s animal needs and a small number of clients.”

The ambulatory service provides students with insights into running a large-animal, private practice. Fees are set to be similar to prices charged by private practitioners. Christiansen, a 1989 MSU doctor of veterinary medicine graduate, worked in a large-animal practice for 12 years in Hinds County doing mostly ambulatory services.

“Our goal at MSU is to have a farm-call practice that simulates an actual ambulatory practice,” Christiansen said. “We want to teach students the real-world aspects away from an institutional setting. As we travel to client premises, we discuss issues related to private practices, such as the cost of equipment and travel, how to set fees, and communication skills to use with clients.”

Dr. Jim Brett joined the ambulatory service last fall. The Kosciusko native earned his doctor of veterinary medicine degree from MSU in 1983. After graduation, Brett ran a mixed animal practice in Georgia and was a columnist for Dairy Herd Management magazine.

“The ambulatory program allows students to experience more real-world, large-animal situations. They perform physical exams, use technical skills and treat animals under the supervision of a clinician,” Brett said. “I hope the ambulatory experience will benefit all students no matter what type practice they enter.”

Brett said most care and treatment decisions are made before obtaining any laboratory data.

“The students generate theories, rule out problems and list therapy options for the owner based on our experience on the most probable cause,” he said. “If they choose to do lab
work, I make sure that each test is really necessary since all testing costs the client money.”

Brett said he tries to incorporate practice management information into the program, including how to charge for services, what it costs to operate an ambulatory truck, and inventory and other basic considerations. Students also get to interact with clients and learn communication skills they will need after graduation.

“If students wish to run a large-animal or mixed practice, they need this information to be successful business people,” he said.

Christiansen said the horse industry in the counties surrounding MSU has increased significantly in recent years. The number of veterinarians available to serve large animals has not.

“This area is booming. As human populations and services expand, it only follows that the equine community will grow as well,” he said. “We hope to attract trainers and others with an interest in developing horse businesses in this area with animal care to accommodate their needs.”

Dr. Nancy Jackson, a 1990 MSU graduate who runs a private practice ambulatory service out of Eupora, said the university’s service complements the care provided by local veterinarians. One opportunity she had to work with the unit occurred last spring after a tornado hit a dairy barn in Choctaw County during milking time.

“It was comforting to know MSU was able to respond in a disaster. The sheer number of animals involved and the labor needed was overwhelming. We were working on four animals at a time. It is good to know they are available as a backup if I am unable to respond to a call.”

Dr. Nancy Jackson

CVM students Will Kimbrell, left, and Gordon Cliburn, center, assist Christiansen with cows that were wounded during a Jan. 10 tornado near Weir.
Summer is filled with activities that often take children one direction and their parents another, but a Mississippi State University program brings families together for outdoor adventures that can include handling snakes and throwing tomahawks.

Designed to foster and enhance an appreciation for Mississippi’s wildlife and fisheries resources through hands-on experiences, the 5-day Intergenerational Wildlife and Fisheries Camps are filled to capacity in June and again in July.

“The uniqueness of our camps compared to others on campus is that both parents or grandparents and their children attend and learn side-by-side,” said John Guyton, camp director and associate extension professor in MSU’s Department of Wildlife and Fisheries. “During the July camp, one family had three generations ranging from 10 to 69 in attendance.”

The campers rise every morning around 6 a.m., eat breakfast and then begin the day. Conservation activities include telemetry, trapping, carnivores, wild turkeys, river ecology, hunter education, boater safety training, forest insects and plants, and reptile and bird biology and identification.

“These are not typical classroom-style presentations by any means. Active learning takes place as campers hold reptiles, feel bears’ teeth, watch a mountain lion, shoot rifles, throw tomahawks, and fish, many for the first time,” Guyton said.

The sporting activities include fishing, hiking, seining, canoeing, archery, tanning, skeet shooting, rifle shooting, bow fishing, tomahawk throwing, fly tying and using GPS receivers.

“My favorite part of camp would have to be when we shot the shotguns,” said 10-year-old Callie Turner, a resident of Eupora.

Callie attended the camp with her grandfather Glen Booth. Her uncle David Booth and cousin Abbie Booth also attended.

“Attending the summer camp made me feel like a youngster again,” Glen Booth said. “I learned a lot about balancing the fisheries in farm ponds, which is important since my son is in the process of stocking his pond.”

Booth, a graduate of the University of Mississippi, said it also brought back memories of college life and proved that Bulldogs and Rebels can get along.

While fun and memories are important to any summer camp, the larger objective is to educate campers about conservation topics and to lay the groundwork for an appreciation for the land that will last into adulthood.

“To determine how effective the teaching methods are, we administered a short test at the start of camp and at the end of camp,” said Leslie Burger, wildlife and fisheries extension associate. “In both the June and July camps, scores improved an average of 19 percent.”

Many of the campers are outdoor-oriented and already participate in hunting, fishing, camping and boating, Burger added.

“How ever, so many of Mississippi’s children are growing up without any outdoor experience at all, and the challenge to reach these kids with conservation may be greater,” Burger said.

By involving students in conservation lessons and outdoor activities, we hope to instill the need to protect, conserve, sustain and use our natural resources, Burger added.

Hosted by the College of Forest Resources, the camp includes cooperators from the Mississippi State University departments of forestry, landscape architecture, and wildlife and fisheries. The College of Veterinary Medicine and MSU Extension Service are also involved. Assistance from outside the university is provided by the U.S. Fish and Wildlife Service; U.S.D.A. Wildlife Services; U.S.G.S. Biological Resources; Mississippi Chapter of the Nature Conservancy; Mississippi Department of Wildlife, Fisheries, and Parks; Starkville School District; and the Noxubee National Wildlife Refuge.
Horse racing has returned to the Mississippi Horse Park near Starkville.

The facility was closed to events sanctioned by the U.S. Trotting Association in 2002 because a hill in the center of the circular track obscured the view of spectators and judges. The five-eighths-mile, all-weather track reopened on June 20, after the removal of 65,000 cubic yards of dirt.

“The hill was as tall as 25 feet in some areas and took 2 months to remove,” said Bricklee Miller, facility manager with the horse park at Mississippi State University. “Now, if you are 3 feet tall or taller, you can see around the track.”

Harness racing, where horses trot or pace at a steady gait carrying the riders behind them in buggies, draws crowds all over the country. Miller said 75 to 140 horses compete on a typical race day, with 10 to 15 horses on the track at a time.

The Mississippi Trotting Horse Association has about 200 members. Miller said harness racing at the historic Neshoba County Fair has familiarized many Mississippians with the sport.

“We have more than 300 stalls on our grounds, but we actually need more room,” Miller said. “There are 26 local harness-racing barns, and our track supports weekly trainers from Starkville, Macon, Louisville, Pheba, West Point, Columbus, Artesia, Crawford and other areas.

“We used the dirt from the center of the track to build a future barn site and a path from the bath and shower house. We also used it to develop an area for 50 more electrical hookups for trailers and campers, for a total of 150 at the park,” Miller said. “We are accomplishing several projects at one time.”

Miller said the hill prevented judges from accurately recording lap times and calling fouls. After 3 years of using an elevated platform to judge races, U.S. Trotting Association officials in 2002 refused to sanction another race at the Mississippi Horse Park until the hill was moved.

“When you have a sanctioned race, the results of the race go to the national association’s headquarter’s database to be tallied for the horses’ lifetime earnings,” Miller said. “You want to be able to sanction a race because it enhances the value of the horses and gives the drivers credit with the association.”

With inflation on the rise, racers and horses need all the earnings they can get. Floyd Bell, a harness racer whose father introduced him to the sport, said it is particularly expensive to transport horses across the country to compete.

“It’s rough right now,” Bell said. “We have to go to Chicago and Indiana for some of the races.”

Henry McDonald of Louisville, a member of the Mississippi Trotting Association and the U.S. Trotting Association, said having a track in north Mississippi helps more people enjoy the sport.

“For guys like me who don’t get to travel too much to the out-of-state tracks, having a facility like this close to home is a big plus,” He said. “One of the advantages is that the family can come and watch the races.”

The horse park itself fulfills many purposes, facilitated by a unique three-way partnership among MSU, Starkville and Oktibbeha County.

“There is no other university in the state of Mississippi that has what we have here as far as this type of facility,” Miller said. “It’s the perfect mixture because we have the veterinary college, we have research scientists, and we have the Extension Service.”

The first race following the reopening of the track was scheduled for Sept. 27, during the month harness season usually ends.

“We could not schedule a race early in the season because we didn’t know when work on the track would be done,” Miller said. “So now we’ve got to wait until the season almost comes to an end, so we can make sure that all of our local racers are back here to race.”

Bell said there are other tracks in Mississippi for competitive racing, including one in Jackson. However, he took advantage of the horse park’s new track for training after its opening ceremony, despite intermittent rain.

“You have to do it 7 days a week in rain, shine, sleet or snow; it’s just like a job for me,” Bell said. “You have to really want to do it to enjoy it.”
A dog has a master, a cat has a staff, and the felines in the metro-Huntsville area of Alabama have exclusive access to a veterinarian who understands their management style.

Stephanie Gandy-Moody, a 2007 graduate of the College of Veterinary Medicine at Mississippi State University, recently opened The Cat Hospital of Madison, Ala., a medical practice and facility that caters to cats and the people they own. No fur has to fly between kitties and their canine adversaries because there simply is no room for dogs at this “inn.”

Not having dogs to worry about is music to a cat’s ears. There is no cacophony of barking, growling, tail thumping and toenail clacking. Like Simon and Garfunkel, the felines enjoy the sounds of silence.

“You never have to raise your voice over barking dogs, and you never get drug up the hallway by an overexcited Himalayan,” Gandy said. “It is just calm and relaxed.”

Gandy has a long-standing interest in feline medicine, although she earned her undergraduate degree at MSU in poultry science. The native of Charlotte, N.C., grew up with a “dog person” — her mom — and, after some really serious begging, she got a horse at age 9. The horse, Brandy, is still with Gandy today, having turned 26 this year.

“Growing up, I always thought I was going to North Carolina State University, but when it came time for me to make a decision, NCSU just didn’t feel right,” Gandy said.

While studying for a health occupations competition for high school students, Gandy overheard the school secretary talk about her daughter being accepted to veterinary school at Mississippi State. Intrigued, Gandy applied and was accepted 3 weeks later.

“I was ecstatic, but my mother was completely against the idea,” she said. “My dad and I drove to Starkville for the first time, and I just fell in love.”

Gandy’s first stop, of course, was the veterinary school. She met student affairs coordinator Barbara Coats and academic affairs adviser Mikell Davis, who gave her a tour and answered questions.

At MSU, Gandy also met two of the great loves in her life, future husband Edward Gandy, who was a poultry science major, and a cat named Noah.

“I wanted a pet to keep me company while studying, but I didn’t want to be tied down with a dog, and so I got a cat,” Gandy said. “Noah was great company but always into everything so I decided to get another cat, Pete, to keep him company.”

She headed to the Columbus-Lowndes County Humane Society and picked out an adorable red-and-white tabby. But Pete had other ideas when Gandy put him in the car.

“He went crazy,” Gandy said. “I almost returned him, afraid that I had picked out a feral cat.”
Pete soon settled in and the romance was on.

After graduation, Gandy was accepted into veterinary school and looked forward to achieving her dream of becoming a veterinarian. However, a tragic event suddenly turned the world upside down. Gandy’s husband Edward was killed in a car accident the spring semester of her freshman year in veterinary school.

“This was a devastating blow to a young woman just starting veterinary school and looking forward to a long productive life with her husband,” said Phil Bushby, a veterinary professor whose philosophy Gandy sought to emulate. “The courage, the perseverance, the tenacity that this young lady showed to even stay in school was an inspiration to all of us.”

Gandy persevered with the support of faculty, students and her cats. Her gift to her cats was a decision to specialize as a feline practitioner.

“Stephanie was a great student,” said Sharon Grace, the feline specialist at the veterinary school. “She understands that cats can’t be bullied into submission. It takes much finesse to work with them.”

Gandy served as president of the MSU student chapter of the American Association of Feline Practitioners and remains active in that organization as a professional. She earned externships with some of the premier feline specialists in the country.

She “gets” cats. Many of her clients do also, which presents a real challenge in determining what route to take in maintaining the best interests of the cat.

“The majority of ‘cat people’ consider their cat like a child,” Gandy said. “They come in the hospital with a perceived notion of what’s wrong with their baby after reading information on the Internet. Right, wrong or indifferent, you have to earn their trust.”

The feline patients, masters of indifference, sense this.

“Cats have a built-in timer,” Gandy said. “You have to work quickly but gently because when time is up, it is up. Submission doesn’t work with cats.”

If her cat patients do not look forward to seeing her, Gandy’s husband, Michael Moody, does.

“Michael was a classmate of mine and is my greatest support system,” Gandy said. “We have no children yet, but our ‘furbabies’ include our kitties, Noah, Pete, Lucky, Isabelle and Sassy; my first horse Brandy; and our dogs, Jax, Eli and Angel.”

This is an extended family that Gandy loves to come home to after a busy day at the practice. When she arrives, Michael and the dogs are ready to meet and greet. Savoring the mystery, the cats bide their time.

“Cats are more independent, and you have to work a little harder to gain their affection,” she said.

Who said anything about a little cat hair flying around!
When it comes to providing educational opportunities to the people of Mississippi, there are not many paths Mississippi State University has overlooked. That is especially true in the Division of Agriculture, Forestry and Veterinary Medicine.

Each year, thousands of Mississippians turn to MSU for self-improvement, continuing education opportunities, guidelines for managing their personal resources, or information related to their farms or other business. Sometimes, all that is involved is a visit to a Web site or a call or visit to a county Extension office. Several thousand people also take advantage of the chance to participate in activities on the Starkville campus, an MSU experiment station or other facility.

The following pages feature four diverse types of outreach activities: a field day, a garden day, an onsite equipment show and a 4-H technology conference. Information about all the happenings in the division is available on the Web at MSUcares.com.
Rising fuel costs and stagnant forest products sales didn’t stop some 6,000 from attending the Mid-South Forestry Equipment Show at the Mississippi State University John W. Starr Memorial Forest.

In its 25th year, the show is the oldest and largest live demonstration of forestry equipment in the nation. At the June 6-7 show, companies including Bandit, Barko, Caterpillar, John Deer, Rotobec, Tigercat, Stribling and others showcased the newest technology and machinery used to advance the South’s timber industry.

“It’s a great opportunity to have interaction with loggers, find out how their business is going, what the market conditions are and be able to explain what our new products feature,” said Hubert Boatwright, sales representative for Caterpillar Forest Products.

The equipment show not only offers an opportunity for businesses and customers to interact, but also provides continuing education opportunities for loggers, landowners and foresters.

“We had 2,000 attendees receive 5,971 continuing education credits during the 2-day event,” said Charles Burkhardt, show manager and forest supervisor.

Classes range from forestry ethics to business planning for loggers and managing hardwood stands for profitability, Burkhardt added. Many of the individuals who attend enjoy participating in competitions where they can use a new piece of equipment to test their skills.

“The popular Prentice Loader Championship tests the skills of professionals and is a time challenge rewarded with prizes and/or cash,” Burkhardt said.

Originated in 1972, the loader contest requires participants to successfully remove vertical log blocks from a checkerboard and then return them to their original squares.

The show also sponsors a skidder contest, and there is a full range of children’s activities to help future forest professionals pass the time.

“I like to come because I get to try out new equipment,” said Jason Cutshaw, an Iuka logger for 17 years and father of three.

Sponsored by Mississippi State University’s College of Forest Resources, Hatton-Brown Publishers Inc., Mississippi Logger’s Association and the Mississippi Forestry Association, the event is designed for the entire family.
For more than two decades, the MSU College of Veterinary Medicine’s annual open house has been a treat for young and old alike.

According to Ashley Allen, 2008 open house chairman and president of the MSU Student Chapter of the American Veterinary Medical Association, older students have the opportunity to talk to veterinary students and faculty about career paths.

“The younger students enjoy seeing a variety of animals and demonstrations they would not typically see,” she said. “The petting zoo contains some common animals, and the animal show allows veterinary students to show off some of their unique and exotic pets.”

The 2008 event also included the Frisbee Dog Competition and other outdoor events, as well as tours of the animal hospital and classrooms.

Tiny Beaumont Supports Big Plant Business

Mississippi Agricultural and Forestry Experiment Station personnel pack a lot of knowledge into a small space at the 20-acre Beaumont Horticultural Unit.

At the unit’s annual field day on June 6, horticultural crop producers and processors, industry representatives and local educators were briefed on projects designed to support the area’s food and gardening businesses.

David Nagel, extension professor of horticulture, reviewed development of a 4-inch onion targeted for maturity in July. The large-diameter vegetable, used for onion rings by a major fast-food chain, can be grown by south Mississippi farmers who provide fresh produce to Southeastern markets. The key to the demonstrations is to find an onion that tolerates Mississippi’s summer heat.

Bennie Herring, Perry County Vocational Technical Center forestry instructor, has brought students to Beaumont for school day tours for 15 to 20 years.

“Field days help us to go back and teach the kids about the technology that is developing,” said Herring. “Plus, since my school is near, I can bring students for ‘hands-on’ teaching. In fact, I’ve taught some of the guys working here.”

Robin Borden, chief agronomist with Organic Growing Systems Inc. in Monticello, has been in the fertilizer industry for 25 years. The MSU horticulture and agronomy turf management alumnus’ company specializes in organic fertilizers and soil amendments.

Attending the field day to network with scientists and growers, he said, “The people who attend these have similar mindsets. And, to me, the discussions between the participants are as beneficial as what we actually see here. We all tend to become segmented into our individual fields, and this is a good way to share information.”

Christine Coker, associate research professor of horticulture, conducts most of her research at the Beaumont unit. The primary focus of that work is commercial vegetable production, cut flower production and Asian vegetables for both commercial and home settings.
Home gardeners want to share their dirty little secrets.

They will forego any inconvenience if they feel they can help even one person. Such enthusiasm for plants and nature is why some people across the state will drive a good distance to exhibit at or attend field days, such as the Spring Garden Day at the North Mississippi Extension and Research Center in Verona.

Lelia Kelly, horticulturist with the Mississippi State University Extension Service, said she thinks the popularity of gardening events is all about the sense of community many Mississippians feel.

“People who garden have a need for knowledge and a desire to share,” she said. “A garden day is a great opportunity for people who enjoy plants to network, interact informally and exchange new ideas.”

Melvin Campbell of Verona, who has exhibited with other members of the Old South Iris Society at past garden days, decided to venture out on his own this year. His daylily cuttings, which he produced for sale, attracted a crowd.

“One lady stayed behind and we talked for a long time,” he said. “She helped us pack when the garden show ended, and I learned more about daylilies from her than she did from me.”

“Growing up, I always had chores to do in the garden because it was part of my job as a member of the family,” Campbell said. “I don’t remember exactly when that perception grew from a chore to a labor of love, but it happened. It is thrilling to watch your babies grow.”

Mary Hodges of Nettleton is another member of the iris society who exhibited for the first time at Verona. She said she has no favorites among the irises, daylilies, roses and hostas that she grows.

“I just like plants,” she said. “2008 has been a wonderful year for gardening.”


“People who love plants love to talk,” she said. “If you love plants, you will always have something to talk about and something to write about.”
One of the newest events on the 4-H schedule is the State Science, Technology and Engineering Conference. The first conference was held in 2007, and participation doubled to almost 100 for 2008.

This year’s conference included sessions on Flash software, Web site design, geographic information systems, digital photography and a communications session on speaking and entertainment. Also included were new sessions on robotics and rocketry. All of the sessions are designed for participants to learn while having fun.

“They are learning basic engineering techniques and critical-thinking skills,” said Mariah Smith, Extension instructor and coordinator of the robotics sessions.

The robotics participants had to build four different robots to complete progressively more difficult tasks based on an archeological theme. One task involved programming a robot to drive up and stop on a pressure point on the floor before lifting a scroll and returning to the starting point.

“It’s really fun,” said 11-year-old Emoree Heiselt, a junior helper for the robotics sessions. “It’s amazing to see what these can do.”
A working relationship that began 40 years ago has led to international recognition for a pair of Mississippi State University entomology graduates.

James H. Tumlinson and W. Joe Lewis are recipients of the 2008 Wolf Prize in Agriculture for their contributions to the field of chemical ecology. The Israel-based Wolf Foundation gives Wolf Prizes in the areas of medicine, agriculture and the arts. The Wolf award is considered agriculture’s equivalent of a Nobel Prize.

Both Tumlinson and Lewis earned degrees at MSU in the late 1960s. Tumlinson received a master’s in organic chemistry with a minor in entomology, as well as a doctorate in organic chemistry with a biochemistry minor. Lewis earned his bachelor’s, master’s and doctorate at MSU, all in entomology.

After leaving MSU, both entered careers with the USDA Agricultural Research Service, with Tumlinson serving as a research chemist in Gainesville, Fla., and Lewis as a research entomologist in Tifton, Ga. They soon began collaborating on research to determine how plants react when under attack from insects.

“When I was at Tifton and Jim was at Gainesville, we partnered up, with him doing the chemistry side and me the entomology side,” Lewis said.

Over the years, the partnership grew into a team of scientists, including chemist John A. Pickett in the United Kingdom, who shares the 2008 Wolf award.

“The research recognized by this award was conducted over at least three decades by numerous really excellent students and research associates,” Tumlinson said. “It has been an interdisciplinary team effort. No one person or laboratory alone could have accomplished this.”

The long-term research has yielded a wealth of information about the responses of plants to insect attacks, including the relationships between plants and beneficial insects.

“One of the finds is that when under attack from plant-feeding insects, such as boll weevils and boll worms, plants have an ability to recognize they are in danger and to emit SOS-type signals to recruit the good guys,” Lewis said. “Once we made that discovery, we saw that a lot of things we do in plant breeding and with certain agronomic practices cause plants to lose that ability.”

In announcing the award, Yuli Tamir, Israel’s minister of education and chair of the Wolf Foundation council, noted that the team of scientists were selected “for scientific contributions on chemical ecology, which have fostered the development of integrated pest management and significantly advanced agricultural sustainability.”

Tumlinson is currently the Ralph O. Mumma Endowed Professor of Entomology and director of the Center for Chemical Ecology at Pennsylvania State University. Lewis recently retired from USDA-ARS.
Joe Lewis conducting research with parasitic wasps as part of a team that made significant new discoveries about plant response to attacks by insects. Opposite page, Lewis and colleague James Tumlinson, second from left, were honored for their research by the Wolf Foundation in Israel earlier this year.
As fall approaches, masses of hunters begin to dust off bows, construct tree stands and sight in rifles. Deer season opens Oct. 15 for most of the state, and once again more than 250,000 hunters will be going to Mississippi’s forests in search of that elusive trophy buck.

Unfortunately, antlers come in all shapes and sizes, so finding the trophy can be a challenge. With that in mind, scientists in Mississippi State University’s Forest and Wildlife Research Center are studying factors that affect antler size. While many things affect the racks of harvested bucks, scientists have found that good soil and habitat quality can help deer develop significantly larger antlers.

“We collected data from over 18,000 bucks harvested on 765 properties during 1991-2002 in Mississippi,” said Steve Demaraia, professor and deer biologist in the Department of Wildlife and Fisheries. “We found that different soil types, even in the same state, can impact antler size.”

Scientists compared three regions in Mississippi to determine how soil impacts antler growth.

“The Delta region soils are very fertile and productive compared to the Lower Coastal Plain region, which are not as fertile and considered to be of lower quality,” Demaraia said. “The loam soils of the Thin Loess region—from Amite and Wilkinson counties in the south to Marshall County in the north—are of modest quality.”

“We found that regional variation in antler size can be explained by soil fertility,” Demaraia said. “Soil fertility impacts food type and quantity, which ultimately affects habitat quality.”

In fact, the scientists found bucks in the Lower Coastal Plain take a year longer to reach their antler potential compared with deer in the Delta.

Researchers also noted a significant difference in the Boone and Crockett scores for deer of the same age across regions. Boone and Crockett scores are determined by taking several measurements to arrive at a final number that provides instant rankings on trophies.

“Same-age bucks from the Lower Coastal Plain soil region had Boone and Crockett scores of nearly 20 inches less than those in the Delta region,” said Bronson Strickland, assistant Extension professor in the Department of Wildlife and Fisheries. “The Thin Loess score is in the middle with about 10 inches between the regions.”

The study found that improved nutrition improves the antler size distribution within any region where nutrition is a limiting factor, especially those with low to moderate soil quality.

“While improving nutrition is important, hunters should remember that regardless of age, 60 to 70 percent of bucks will grow antlers similar to the average for that age class,” Strickland said. “A small percentage will be smaller than average, and an equally smaller percentage will be larger than average.”

Hunters should manage their properties for an average size class and modify their expectations to conform to the fact that high-end bucks are not common, even under the best of circumstances, Strickland added.

“If you want to harvest big bucks, you should let deer reach maturity and provide proper habitat management and food plots,” Strickland said.
Southerners’ taste for mint juleps may be more myth than fact, but Mississippi State University researchers may create a new role for the tasty herb in the South.

Mississippi Agricultural and Forestry Experiment Station scientist Valtcho Jeliazkov established plots of several mint varieties at the North Mississippi Research and Extension Center in Verona, Delta Research and Extension Center in Stoneville and Truck Crops Branch Experiment Station in Crystal Springs during 2007.

“Poor drainage caused some problems for the plots at the Delta Research and Extension Center, but otherwise the plots have been successful,” Jeliazkov said. “Yield data from the two cuts during the 2007 season and the first cut of this year is pretty good. It appears peppermint and spearmint cultivars grown in Mississippi can provide the same or greater yields than in some traditional mint-growing areas of the nation.”

There are about 75,000 acres of mint grown commercially in the United States each year. Most of the production is in the Midwest and in Idaho, Washington and Oregon. About 90 percent of the crop is used in mint-flavored chewing gum and dental products, such as mouthwash and toothpaste. Candy, teas, breath mints and similar products account for most of the remaining 10 percent.

Demand for mint is increasing at the same time Midwestern growers are cutting back production, said Rocky Lundy, executive director of the Mint Industry Research Council.

“Mint is losing acreage to corn in the Midwest because of the sharp increase in grain prices,” he said. “However, the industry needs about another 10,000 acres.”

Lundy was in Mississippi in late June to visit the MSU research plots and again in mid-July to meet with prospective growers in the Delta. During the first visit, he was accompanied by Gregory Biza, technical director of I.P. Callison and Sons, a major supplier of mint to manufacturers of mint products.

“Mint is one of the few remaining all-natural flavors,” Lundy said. “About 90 percent of the mint produced in the U.S. is used in chewing gum and dental products, including toothpaste and mouthwash. Other uses include candy, breath mints and teas.”

Production of mint starts with planting certified, disease-free plants, Biza said.

“After the crop is established, growing mint is a lot like growing alfalfa,” he added. “Once the leaves are harvested, they are taken to a processor where steam is used to extract mint oil, which is placed in 55-gallon steel barrels. Each barrel can be used to flavor 500,000 tubes of toothpaste or 5.2 million sticks of chewing gum.”

It takes mint leaves from about 4 to 7 acres to fill a 55-gallon drum, and a drum currently sells for about $8,000 to $10,000.

Both Lundy and Biza noted that about 100 acres of mint are needed to support a processing plant. However, one large grower or several small producers can supply this acreage.

During the July meeting at the Delta R&E Center, the presidents of I.P Callison and Sons, and Rcb International, another mint oil dealer, indicated they would work with growers on infrastructure development.

“Peppermint, spearmint and possibly Japanese mint are promising new high-value crops for Mississippi,” Jeliazkov said. “We have identified a market for a new high-value crop, and our research has demonstrated the crop’s feasibility.”

The MSU researcher plans to conduct on-farm studies to demonstrate mint production to prospective growers and to determine the production and capital costs associated with growing mint.

“It is a long-term commitment because mint is a perennial crop and because of the need for a distillation facility,” Jeliazkov said. “However, our research the past 3 years has shown that mint and similar oil crops can be high-value crops in Mississippi and provide a product that meets the market demand for consistency in supply and quality.”
**1/82: Harrison County**

**County Seat:** Gulfport and Biloxi

**Population:** 189,601 (2000 Census)

**Municipalities:**
- Iuka
- D'Iberville
- Gulfport
- Long Beach
- Biloxi

**Commodities:**
Harrison County is a predominantly urban area with limited commodities produced and harvested in the county. Major contributors are seafood, horticulture and forestry.

**Industries:**
- Hospitality and tourism
- Port of Gulfport – international trade
- Seafood processing
- Military installations – Naval Construction Battalion in Gulfport, Keesler Air Force Base in Biloxi
- Manufacturing – ship industry

**Natural Resources:**
Harrison County has an abundance of rivers, streams, bayous and wetlands, as well as the Gulf of Mexico, which offer opportunities for recreation, wildlife habitats and environmental experiences. More than 200 species of fish, including mackerel, snapper and grouper, indigenous to the Gulf of Mexico make deep-sea fishing charters, shrimping trips, and lake and river fishing prime activities when visiting the area.

**History Notes:**
Harrison County was once home to the Biloxi Indians, then d’Iberville’s French, changing hands many times over the years. Eight flags have flown over the Harrison County –

**Attractions:**
- Gulf of Mexico – 26 miles of white sand beaches
- Gulf Islands National Seashore – Ship Island excursions and Fort Massachusetts tours
- Biloxi lighthouse and marine sculpture viewing along county coastline (Hwy. 90)
- Beauvoir – Last Home of Confederate President Jefferson Davis
- Lynn Meadows Discovery Center – One of the top 50 U.S. children’s museums
- Casinos

**Did you know?**
A single pond in Harrison County is the only known habitat of the critically endangered dusky gopher frog.

**History Notes:**
Harrison County was founded in 1841. The county was named for President William H. Harrison.

**Coastal Research and Extension Center**
1815 Popp’s Ferry Road
Biloxi, MS 39532
Phone: (228) 388-4710

**Sculptor Dayton Scoggins turns Katrina-damaged trees along Hwy. 90 into works of art.**

**Mississippi Gulf Coast Area.**

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**Did you know?**

“The people of Harrison County have endured many changes through the years but none more than those brought about by hurricanes — Katrina bringing the most recent devastation. I am amazed each day as I see courage in the eyes and actions of people rebuilding their lives, their homes and their communities. Courage is not the absence of fear but action in the face of fear. I am honored to know and serve them.”

*Nancy Freeman, Extension County Director*
I recently received a letter in the mail from the Public Employees Retirement System (PERS). The first sentence of the letter was actually a single word followed by an exclamation point — Congratulations! The objective of the letter was to inform me that I had been credited with 25 years of service to our state and that I was eligible for state retirement. Of course, I have no plans to retire any time soon, but it did make me realize how quickly my quarter-century career with the MSU Extension Service has passed and how blessed I’ve been to have had the opportunity to make so many good friends and good memories.

It is sort of funny how certain events or situations through the course of one’s career seem to stand out as memorable. Maybe not because of their significant contributions or anything else particularly important, but they are fond memories nonetheless. My very first day on the job is one of those memories. It was Sept. 1, 1983 — a young, fresh-out-of-Mississippi-State animal science graduate’s first day on the job as assistant county agent in Yazoo County. I had eagerly and quickly climbed three flights of stairs to the Extension Service office located on the top story of the county office building. Once inside the office, Mary Helon Ellis, Extension secretary, was there to greet me.

Mrs. Ellis was perhaps one of the best mentors a young Extension agent could ever hope for — in my opinion, at least. She had already been working for the organization probably 20-something years before I was hired. She knew the ropes of Extension and had already assisted the likes of Yazoo County agents Walter White, Fred Montgomery, Buck Coates and Tim Pepper. I figured there wasn’t much about an Extension agriculture program she didn’t already know, and I was pretty accurate in that assessment. I’ll never forget how tickled she was seeing me show up for work on my first day in my Sunday best, navy blue suit complemented with white shirt and necktie. I’m sure she figured it wouldn’t be long before I would be dressed in work boots and clothing more suited for the job at hand. In that assessment, she was 100 percent accurate.

I could probably write an entire book on all the things that my coworker Tim Pepper taught me over the 4 years he and I worked side by side in Yazoo County. Pepper and I were coworkers from day one but quickly became close personal friends and cherished our luncheon outings each Thursday at the D&L Restaurant in Yazoo City. We were both very fond of Southern fried chicken, and Thursday at the D&L was “chicken day.” In our minds, there was no doubt that Doris and Lil served up the best fried chicken east of the Yazoo River.

While an Extension agriculture agent faces a multitude of tasks each day, there is usually one segment of the job the agent tends to gravitate towards, depending on his own personal interests and experiences. For me, that special interest turned out to be cotton production education.

I am not exactly sure why or how that came about other than the positive influences I received from our Extension cotton specialists George Mullendore and Will McCarty and the fact that I served most of my Extension career in Sharkey County — an area noted and revered for having some of the most productive cotton-producing land in the U.S. Again, when it comes to some of those memorable times in one’s career, I cannot help but to recall the end-of-season cotton crop management programs Warren County agent Terry Rector, Issaquena County agent Robert Martin and I would organize and hold at Maxwell’s Restaurant in Vicksburg. For many years it was not uncommon for us to host more than 100 cotton growers at this annual, fall event.

When I moved to Vicksburg in the fall of 2005 to assume the role of Warren County Extension director, one of the members of the local board of supervisors informed me that I had “some mighty big shoes to fill.” We are all familiar with that figure of speech when one is crediting the former employee with having done a great job and is urging the current employee to maintain the same exemplary work record. I could not help but to recall, however, that former Warren County Director Terry Rector’s actual shoe size is 14EEE. I also recalled that once while on a trip to MSU for an in-service training, Rector used one of his shoes as a hand-thrown projectile to dispatch a mouse running across the floor of his hotel room. The impact of the hefty wingtip instantly rendered the rodent lifeless.

Congratulations! Sure, I’ll accept that. But before I start collecting PERS retirement benefits, I plan on collecting a few more memories.
MSU Meat Science Teams Win Top National Honors

Two undergraduate student teams from Mississippi State University with an interest in muscle foods placed first and second in the recent American Meat Science Association Intercollegiate Quiz Bowl. Participants included, from left, Jonathan Greene of Birmingham; Tribetta Spires of Jackson; Jenny Heath of Memphis; and alternate Becca Stiles of West Helena, Ark.; team coach and muscle foods graduate student Shollie Behrends; and Megan Bullard of Southaven; Emily Irwin of Carrollton, and Joe Buntyn of Union. Participation in the competition was a collaborative effort from students and faculty in the Departments of Animal and Dairy Sciences and Food Science, Nutrition and Health Promotion. They competed at the 2008 Reciprocal Meat Conference in Gainesville, Fla., June 22 and 23. (Submitted photo)

MSU Employees Honored for Service to Agriculture

Several Mississippi State University faculty and staff members were honored for service at the July 18 summer celebration of the Division of Agriculture, Forestry and Veterinary Medicine.

The division presented the 2008 Louis and Doris Wise Support Staff Awards, the Rosalind and Rodney Foil Teamwork Award and the William M. White Special Project Awards during the annual event at the Bost Center. Wise and Foil are former division vice presidents, and White was a dairy producer and MSU financial supporter.

Charles Burkhardt, supervisor of forest and facilities management for the College of Forest Resources, received a Wise award in the professional/nonfaculty category. Also receiving Wise awards were two Delta Research and Extension Center employees: office associate Evelyn Fratesi in the secretarial/clerical category and engineering technician Ronnie Lee in the technical/paraprofessional category.
Receiving the Foil teamwork award were associate professor Sylvia Byrd and assistant professor Brent Fountain, both in the Department of Food Science, Nutrition and Health Promotion, and the late Joseph Chromiak, former professor in the College of Education’s Department of Kinesiology. The trio was recognized for a study of coordinated school health programs in the Mississippi Delta and Starkville.

The White awards fund research and Extension efforts that promote further development of agriculture and agribusiness in Mississippi.

Ornamental horticulturist Gary Bachman, coastal environmentalist Christopher Boyd, research horticulturist Christine Coker and ornamental horticulturist Mengmeng Gu received a White award for a project to establish a school seedling nursery program for habitat restoration. Bachman, Boyd and Coker work at the Coastal Research and Extension Center, and Gu is on campus in the Department of Plant and Soil Sciences.

Research biochemist Ashli Brown and molecular biologist Jeff Wilkinson were honored with a White award for a project addressing bio-analytical concepts in agriculture. Both are members of the Department of Biochemistry and Molecular Biology. Nutritionist Diane Tidwell and food processing specialist Anna Hood were given a White award for a project exploring the nutritional qualities of kudzu. Both are members of the Department of Food Science, Nutrition and Health Promotion.

Ashli Brown, an assistant research professor in the Department of Biochemistry and Molecular Biology, presented the AGRO Early Investigator paper at the 2008 American Chemical Society annual meeting in Philadelphia, Pa.

Brown joined the MSU faculty in 2006 and is conducting research focused on renewable alternatives to petroleum, including biodiesel and bioethanol. Her emphasis is on the use of feedstocks, including aflatoxin-contaminated corn, which do not compete with food crops.

Brown’s research is in collaboration with a team from the Renewable Fuels and Chemicals Laboratory at MSU’s David C. Swalm School of Chemical Engineering. She is assisted by her colleague assistant professor Jeffry Wilkinson and USDA-ARS scientist Paul Williams.

Brown earned her bachelor’s in biology and a doctorate in chemistry at the University of South Florida. Prior to joining the MSU faculty, she completed a postdoctoral fellowship with USDA-ARS.

The AGRO Early Investigator award is sponsored by Dow AgroSciences.
In early 1996, news headlines across the nation recounted the tale of a kitten whose male owner tortured her violently and set her ablaze. Her “crime” had simply been missing the litterbox. The kitten, later known as Cleopatra, was rescued by a neighbor and brought to the Animal Health Center in Franklin, Tenn., a suburb of Nashville. The owner of the clinic was Dr. Sharon Grace, a Mississippi State University doctor of veterinary medicine graduate. Despite the loving care Dr. Grace provided, Cleopatra had to be euthanized several months later.

Soon after, Dr. Grace began operating a Safe Haven for Pets program from her clinic — picking up the tab out of her own pocket. The need for this service, which she provided through a battered women’s shelter, grew along with her passion for its cause. Her focus is not on animal rights, but rather on the welfare and humane treatment of animals. When Dr. Grace speaks at conferences, she typically talks about animal cruelty from a veterinarian’s perspective and firsthand experience.

“I have lost three of my pets due to cruelty, and I now feel like it is my calling to educate and assist, as well as treat,” she said.

A presentation by Dr. Grace during a Humane Society of the United States Conference inspired a New York social worker to lobby for stronger laws against animal cruelty in her home state. The story of Cleopatra’s plight also led to changes in the animal laws of Tennessee and New York. Both states upgraded their charges of aggravated cruelty to animals from misdemeanor to felony offenses. Cleopatra’s story even became part of the training curriculum for all municipal police recruits in New York.

Vivid memories of the kitten continue to motivate Dr. Grace’s efforts as well. She returned to Mississippi State in 2000 as a clinical professor on the CVM faculty. In 2004, the university recognized Dr. Grace as its CVM Alumna of the Year for her work in the veterinary community. She teaches one of CVM’s most popular courses — a 4-week elective called “The Feline Patient” — and has written a book with the same title.

Dr. Grace’s mission continues to be educating others about the life cycle of violence and fulfilling her dream of launching a Safe Haven for Pets program on a larger scale at her alma mater. Creating awareness and understanding through training is what she hopes to offer MSU’s clinical students with exposure to the program.

The cycle of violence to which Dr. Grace refers is the link between child abuse and domestic violence, which, in turn, is linked to animal cruelty.

“When people think about domestic or child abuse, they don’t automatically think that the abuse extends to pets,” she
explained. “Usually animals are the first victims in the cycle of violence because abusers use them as leverage with humans.”

Animal victims are generally small, harmless creatures like cats, dogs, rabbits, birds, rodents and reptiles. Animal victims suffer torture, often leading to death.

The majority of domestic violence shelters across the nation do not accommodate pets. If pets must be left behind, women will often delay entry into these shelters.

“It is common for batterers to harm their partners’ pets,” Dr. Grace said. “Statistics tell us that the majority of battered women do not enter shelters sooner for fear of what will happen to their children and their pets. Therefore, a way to get battered women in the system and prevent child abuse is to provide care for the family’s pets.”

Violence toward animals is often ignored by society and not considered a serious problem, but Dr. Grace said she believes it is an indicator of future violence against all species, including humans.

“Dr. Grace is one of the few veterinarians in the nation to have experience with this type of pet program, and Mississippi State is extremely lucky to have her paving the way in this area,” said Dr. Philip Busby, a professor of clinical science who holds the Marcia Lane Chair in Humane Ethics and Animal Welfare in the College of Veterinary Medicine.

The Safe Haven program is one of nine initiatives supported by the Humane Ethics and Animal Welfare Program at Mississippi State. Mississippi State’s veterinary college stands to become one of a few veterinary colleges in the nation with a program of this kind.

The goal of the MSU Safe Haven for Pets program, according to Dr. Grace, will be threefold. First, the program will provide a service for the state of Mississippi to assist often-overlooked needy women, children and pets. Second, it will provide a template for teaching CVM students the importance of community service. Third, the program ultimately could become a national model for other Safe Haven pet programs.

“I want Mississippi State to become a flagship for other universities,” Dr. Grace explained.

Nestle Purina, the Copwood Hill Foundation and Pfizer have already committed start-up funds for the Safe Haven for Pets project. The number of donors interested in the unique program is growing, but private gifts are still needed to encourage partnerships statewide.

Donors may make contributions for the Safe Haven for Pets program by visiting the MSU Foundation online at www.msufoundation.com or by contacting Keith Gaskin, senior director of development at 662.325.3815 or kgaskin@foundation.msstate.edu.
It’s all in the name. Check it out for news and information from the Division of Agriculture, Forestry and Veterinary Medicine.