



COLLEGE OF AGRICULTURE, HUMAN
AND NATURAL SCIENCES LINK
FALL 2012



*Linking The College
To Its Alumni And Friends*



College of Agriculture, Human and Natural Sciences
3500 John A. Merritt Blvd.
Nashville, TN 37209



August 1, 2012

Dear Alumni and Friends:

These last six months have been very eventful for the College; they have included a number of centennial activities, the integration of two new academic departments, and the addition of a research center into the College. Our annual Agricultural Week celebrations took on new meaning this year, as they coincided with the University's Centennial Celebrations kick-off week. You will be proud to know that the College's activities were well received by the campus community and the public at-large. The College invited outstanding scholars and leaders to speak to faculty and students. On April 16th, the National Institute for Food and Agriculture (NIFA) interim Director, Dr. Chavonda Jacobs-Young, delivered a keynote speech and helped to dedicate two research and teaching laboratories (pages 13-14), and interacted with students at a luncheon (pages 6-7). Dr. Barry Sharpless, winner of the 2001 Nobel Prize in Chemistry shared his lifelong research experiences with the Nashville community as part of our Chemistry Day on April 17th (page 8). On the same day, I inaugurated a national fire ant conference hosted by the College (page 17). On April 18th, Nashville Mayor Karl Dean delighted the audience with his speech on environmental sustainability, and Dr. Edith Peterson delivered an equally interesting and timely talk on Personalized Medicine: Critical Healthcare Challenges (pages 9-10). The week ended with an awards ceremony recognizing our outstanding faculty and students; always a happy day for me as I get to showcase our best people!

With a large admiring campus community looking on, President Portia Shields, Chancellor John Morgan, Commissioner Julius Johnson, NIFA Director Sonny Ramaswamy, State Senator Thelma Harper, Facilities Manager Ron Brooks and I broke the ground for a 30,000 square foot, two story agricultural biotechnology building on June 6th; This is a significant event for the College and the University and will impact future research and student learning at TSU for years to come (pages 4-5). This building, when it comes on line a year from now, will house a number of state-of-the art research labs, classrooms and meeting places to advance the agricultural pursuits of the University. We are also designing a couple of additional research and education facilities at the Main Campus Agricultural Research and Education Center that will be completed by the end of this academic year.

The new integrated College has completed its first year with faculty and staff in very high spirits; the new partners are thoroughly enjoying the hospitality of the agricultural faculty, staff and administration while the agricultural faculty are exploring ways to engage the expertise and enthusiasm of biology and chemistry faculty and staff in their research. It is really a symbiotic relationship between agriculture, human sciences and natural sciences! The employees of the Center for Prevention Research feel at home in the new College and are engaging the College faculty in their passionate community-based research.

Importantly, I feel very blessed to be able to bring all these entities together and to create a new College of which we all can be proud. In 2008, the erstwhile School of Agriculture and Consumer Sciences had 250 students and a fledgling graduate program with 10 students. Today, we have a total of 1100 students and close to 150 graduate students. We can make similar comparisons in research and extension: county extension operations have grown from 12 to 32 counties and research has mushroomed to \$54 million in currently funded activities - a respectable level by any standard. I want to thank you for your continued support in achieving these goals.

Sincerely,

A handwritten signature in black ink, appearing to read 'Chandra Reddy', written in a cursive style.

Chandra Reddy, Ph.D.

Dean and Director of Research/Administrator of Extension



CAHNS has broken ground on our new \$8 million, 30,000 ft² Agricultural Biotechnology Building

Dean Dr. Chandra Reddy was joined by Tennessee Agriculture Commissioner Julius Johnson, State Sen. Thelma Harper, TSU President Portia Shields, Tennessee Board of Regents Chancellor John Morgan, National Institute of Food and Agriculture Director Dr. Sonny Ramaswamy, and TSU Associate Vice President of Facilities Management Ron Brooks in a groundbreaking ceremony on June 6, 2012.

“This is a great day for Tennessee State University,” said President Portia Holmes Shields. “This addition to our university certainly is a further effort in our commitment to provide the best learning environment for the kind of cutting-edge research our faculty and students conduct at this institution.”

The new Agriculture Biotechnology Research Building, funded by the USDA, will house and support primarily agricultural research and provide working space for more than 20 new Ph.D. level scientists who have joined the University in the last 18 months. It will also include research space for graduate students, large classrooms, laboratories and a high-efficiency HVAC system.

The Director of the USDA National Institute of Food and Agriculture (NIFA), Dr. Sonny Ramaswamy, whose agency is providing direct funding for the new building, said the answer to solving the need to feed the world’s growing population required a “human dimension” that TSU can help to fulfill through research facilities like this new building. “We face challenges of food production, poverty, health, climate change, with no clear answer because we (politicians, educators, etc.) cannot agree on how to solve these challenges,” he said.

Dr. Chandra Reddy, Dean of the College of Agriculture, Human and Natural Sciences, said the new Agriculture Biotechnology Research Building was a culmination of two years of planning and discussion between University, state and USDA officials. He thanked NIFA for the funding, adding that graduate enrollment in the College of Agriculture, Human and Natural Sciences was up, and that the college was running out of room to accommodate the growing faculty and student population.

“The new building will accommodate cutting-edge research for our graduate and undergraduate students, and help us in furthering our STEM (science, technology, engineering, mathematics) education program,” said Reddy. “Our research efforts have also expanded significantly. We have grown to over 100 faculty, 300 employees, and more than 1,100 students, while undergraduate enrollment has tripled and graduate enrollment has increased six-fold.” Additionally, Dr. Reddy said, the groundbreaking further demonstrates the College’s commitment to provide students with the best biotechnology research and training facilities.



College of Agriculture, Human and Natural Sciences *Celebrates* TSU's Centennial

The College of Agriculture, Human and Natural Sciences celebrated the TSU Centennial with four days of events highlighting each of our departments: Agricultural and Environmental Science, Biology, Chemistry and Family and Consumer Sciences.

Monday, April 16th

The College and its friends celebrated Agriculture and Environmental Science Day by dedicating two research and teaching laboratories, hearing from the Interim Director of the National Institute of Food and Agriculture (NIFA), and interacting with the director and guests via research posters and a cookout. With representatives from partners, including Farm Credit Services, Middle Tennessee State University, the Tennessee Department of Agriculture, Tennessee Future Farmers of America (FFA), and the President of the Tennessee Farm Bureau (Mr. Lacy Upchurch), festivities began as faculty, staff, and guests joined Dean Reddy, President Shields, and Dr. Chavonda Jacobs-Young in the ribbon cutting and dedication ceremony of six new greenhouses.



The new \$900,000, 18,000 ft² structure includes teaching and research areas equipped with state-of-the-art environmental controls and innovative plant production systems. Following the Greenhouse Complex dedication, a State of Agriculture Forum was held. The forum brought about positive discussion from a packed audience as participants responded to presentations by Dean Chandra Reddy, Provost Millicent Lownes-Jackson, and Dr. Jacobs-Young, interim Director of NIFA. Held in the Agriculture Information and Technology Center, the forum had live streaming delivered in the Farrell Westbrook Complex and over the Internet. The NIFA Director, Dean Reddy, and Provost also cut a ribbon dedicating our new Landscape Studio. Dr. George Smith and his students explained the form and function of the state-of-the-art facility, again to a packed crowd. The day culminated in students sharing their research with the Director and guests in attendance as they enjoyed a cookout of grilled burgers and hot dogs. What a great way to celebrate the industry that feeds the world!



Tuesday, April 17th

The Chemistry Department held its 9th annual Chemistry Day celebration as part of Tennessee State University's Centennial Celebration Week. The event, held in the Boswell Science Complex, was attended by students and faculty of TSU and other universities throughout Middle Tennessee. In addition, local high school students visited campus to join in the festivities. The department hosted a career fair for students interested in furthering their education or finding employment in the field of chemistry. We were fortunate to have local employers, universities, and professional organizations participate in this year's career fair. Visitors to the department were offered tours of facilities, viewed chemistry experiment demonstrations, and were given a chance to compete in the annual "Chemistry Challenge" - a game-show style chemistry trivia competition. In the afternoon, TSU Chemistry students displayed posters describing research they conducted within the department.

This year, the department was especially delighted to host Dr. K. Barry Sharpless, winner of the 2001 Nobel Prize in Chemistry as their guest lecturer. Chemistry students had an opportunity to interact with Dr. Sharpless during a department sponsored luncheon. The day's events culminated with a lecture delivered by Dr. Sharpless before a near-capacity crowd in the Poag Auditorium. During his presentation, Dr. Sharpless described his experiences in chemistry research, and shared words of encouragement relevant to students of all fields of study.

Chemistry Day is an annual event sponsored by the Chemistry Department in conjunction with the College of Agriculture, Human, and Natural Sciences. It is open to the public and faculty, staff, and students from all departments within Tennessee State University are especially welcome to attend. The enthusiasm among chemistry faculty, staff and students were remarkable. Their support and cooperation is highly appreciated. The department also appreciates the strong support and encouragement from the Dean of the College of Agriculture, Human & Natural Sciences. For questions, concerns and/or suggestions, please contact: mkarim@tnstate.edu or llockard@tnstate.edu.



Wednesday, April 18th

Nashville Mayor Karl Dean addressed a group of Tennessee State University administrators, faculty, staff, students, and community partners concerning the impact of environmental sustainability on communities. The Mayor was invited to speak as part of the TSU’s Centennial Celebration and Family and Consumer Sciences Day on Wednesday, April 18. Guests included Senator Thelma Harper, community partners from state and local agencies, including the Department of Environment and Conservation, General Services Administration, Hands on Nashville, as well as partners from other universities and businesses involved in environmental sustainability. Mayor Dean discussed the progress his administration has made in improving the health of Metro residents by improving the health of the environment through greenways, storm water improvements, and programs that assist residents in improving energy efficiency.

FCS Professors Sue Ballard de Ruiz and Margaret Machara have been working with the Mayor’s office to provide Sustainable Living Workshops throughout Nashville in an effort to reduce the environmental footprint of individuals and families in the area, as well as demonstrate the economic benefits of “living green”. Ballard de Ruiz is also working with the Mayor’s Office of Environment and Sustainability as part of “Go Green North Nashville”, a \$789,031 HUD grant administered through the Tennessee State University Center for Service Learning and Civic Engagement. This grant, along with assistance from NES/TVA and Hands on Nashville, will assist in providing energy retrofits and sustainable living workshops to 100 families in the North Nashville area.



Also on Wednesday, the Department of Biological Sciences, with support from the College of Agriculture, Human and Natural Sciences, held Biology Day. In addition to celebrating the University’s Centennial, the department also celebrated a century of excellence - biology was one of the courses the University provided to its students beginning in 1912. The Biology Day activities were initiated with a gathering of past Department Heads (listed below) and poster presentations of current student research.

Biological Sciences Living Department Heads

Dr. Richard Hogg	Chairman	1973-1978
Dr. Edward Risby	Chairman	1978-1985
Dr. James Campbell	Interim Chairman	1985-1991
Dr. Prem Kahlon	Interim Chairman	1991-1992
Dr. Terrance L. Johnson	Chairman	1992-Present

Biology Day Continued

The climax of the Biology Day activities was an excellent presentation by Dr. Edith Peterson Mitchell entitled, “Personalized Medicine: Critical Healthcare Challenges”. Dr. Mitchell is a retired Brigadier General with the Missouri Air National Guard, and is Clinical Professor of Medical Oncology, Program Leader in Gastrointestinal Oncology, and Director of Minority Affairs for the Kimmel Cancer Center of the Thomas Jefferson University in Philadelphia, PA. Of special note is that she is a TSU alumna, class of 1969!



Thursday, April 19th

The College of Agriculture, Human and Natural Sciences capped off our Centennial Celebration with recognition of excellence in the College. An awards luncheon was held to recognize outstanding students and faculty in the college. With awards presented by President Shields and Dean Reddy, we celebrated our best.



Student Awardees



Outstanding Undergraduate Student
Agricultural and Environmental Sciences
Ms. Rachael Gregory



Outstanding Undergraduate Student
Family and Consumer Sciences
Ms. Ebony Arnett



Outstanding Undergraduate Student
Chemistry
Ms. Yeasmin Sharia



Outstanding Graduate Student, Masters
Chemistry
Mr. Abdul Goni



Outstanding Graduate Student, Doctoral
Agricultural and Environmental Sciences/Biology
Mr. Carl E. Darris

Faculty and Staff Awardees



Outstanding Administrative Support
Mrs. Barbara D. Watkins
Family and Consumer Sciences



Outstanding Technical Support
Mr. Richard Stone
Family and Consumer Sciences



Outstanding Extension Agent
Mr. Michael Shirley



Outstanding New Scientist
Dr. Junming Wang
Agricultural and Environmental Sciences



Outstanding Teacher
Mrs. Aleta Sue Ballard de Ruiz
Family and Consumer Sciences



Outstanding Researcher
Dr. Suping Zhou
Agricultural and Environmental Sciences

CAHNS's New Greenhouse Complex



It took almost 5 months to complete, but the new \$900,000 open-roof greenhouse complex on the Main Campus Agriculture Research and Extension Center is complete.

Each greenhouse is about 48' x 30' and has its own temperature control system that consists of four roof panels and two side panels. The six-house complex is large enough to serve the present needs of our students and faculty, and still have room to expand.

Open-roof greenhouses offer many advantages over conventional greenhouses. For instance, they provide optimal light, ventilation and a natural difference between day and night temperatures. The system allows the crop to be exposed to outdoor environments and at the same time protect them from sub-optimal conditions. Plants are exposed to natural breezes, natural UV light and to cooler daylight temperatures making plants stronger and more resistant to diseases and insects.



Landscape Design

Laying Out A Foundation For TSU's Future

Landscape Design Studio Opens

The Landscape Design Studio is a state of the art facility dedicated to advancing environmental and sustainable education, research, training, and outreach. Officially opened with a ribbon cutting ceremony on March 16th, 2012, the studio is fully equipped with 24 drafting tables, Wi-Fi capability, computer technology, the latest design and graphics illustration software, a wireless plotter/printer with 24" plotting capabilities, and a state-of-the-art Xerox SMART Board.

Broadly focused on sustainable design, the teaching, research, and Extension program housed in the Landscape Design Studio has three specific concentrations of interest including: sustainable landscape design, green infrastructure, and natural playgrounds. Dr. George Smith conducts classes, presentations and workshops on these and related topics in the new Studio.

Sustainable landscape design involves environmentally friendly approaches to designing, constructing and maintaining building landscapes. Sustainable landscape design research focuses on environmental impacts of designed and built landscapes. Teaching focuses on training students, the general public, and workers in areas of environment and ecology combined with instruction in design theory and technology. Two courses are currently offered, and an additional four closely related courses in Environmental Design are being developed. Upon approval, these courses will be offered for student enrollment in January 2013. Student recruitment activities are planned for Fall 2012. Extension outreach and workshop training opportunities will also be offered to adult learners and professionals in the landscape and property management industries.



Green infrastructure involves site design of environmentally friendly landscape systems that significantly reduce pollution and significantly increase quality of water, soil, vegetation, and air. Research focus areas include impacts of green infrastructure design on environmental quality and wellness. Teaching focuses on training students and the general public in this area, and upgrading skills of workers who wish to enter the growing ‘green jobs’ market. Extension activities provide training and certification to students, the public, and workers to be educated and certified in green infrastructure.

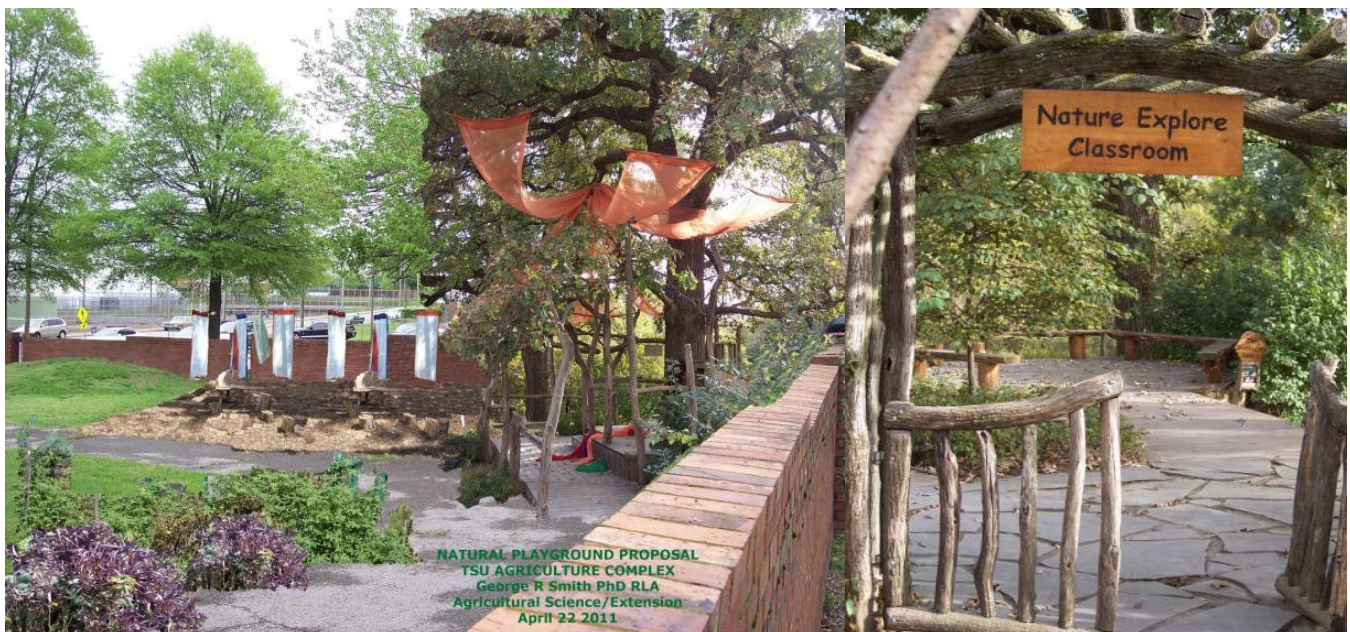
Natural playgrounds are alternatives to traditional playgrounds in that natural playgrounds substitute natural elements for traditional playground features. Tree stumps provide seating and opportunities for leap frog. Water and sand provide opportunities to build sand castles. Musical instruments such as drums, wind pipes and xylophones provide opportunities for creativity. Trees provide opportunities for climbing and so on. Flowers, tall grasses and shrubs attract butterflies and birds. Nature-based childhood learning is developing a large following in this country. Natural Playgrounds are being built all over the nation. There is a growing demand for information, training and related instruction in design, construction and programming of natural playgrounds.

Workshop on Natural Playgrounds Held

Over 125 people attended a workshop on natural playgrounds conducted by Dr. George Smith, TSU Extension. The focus of the workshop, held in January in Clarksville TN, was on planning, funding, and creating natural playgrounds for fun, food and education.

Natural playgrounds are quickly replacing traditional playground across the nation. These multi-use facilities combine outdoor education with growing food and opportunities for fun and healthy exercise in a natural environment. Statistics indicate that children are becoming less active and more obese. Many children now spend most of their time indoors on computers, video games and in front of televisions. Natural playgrounds may provide an appealing way for children to exercise and eat healthier.

Dr. George Smith (gsmith6@tnstate.edu) can be contacted for additional information on natural playgrounds.





Sustainable Landscape Design Workshop

Tennessee State University Cooperative Extension offered a series of spring workshops on sustainable residential landscape design for TSU students, staff and faculty, and the community at large. Workshops were held in the Landscape Design Studio in Farrell Westbrook Hall in March and April. The workshops provided information on how to create a sustainable landscape design for your home, and informed attendees about sustainable plants, water harvesting, edible gardening, butterfly gardens, plants for energy reduction, rain gardens and sustainable grading and drainage. More information about sustainable landscape design is available from Dr. George Smith (gsmith6@tnstate.edu).

Green Campus Initiative

The Green Campus Initiative is a University Initiative created to promote environmental sustainability by seeking campus-wide, community and corporate partnerships to develop educational and research opportunities related to campus greening and undertake visible actions that have a high positive impact on the social, intellectual and environmental context of the Tennessee State University campus and surrounding community. The new Landscape Design Studio will become an effective asset for staging Green Campus workshops, classes and seminars in the years to come.

For additional information about these topics, contact Dr. George Smith (gsmith6@tnstate.edu).

Imported Fire Ant Conference Hosted by TSU



Tennessee State University hosted the 2012 Annual Imported Fire Ant Conference concurrently with the Centennial Celebration on April 16-19, 2012. Due to their health and economic impacts on humans, livestock, and wildlife, fire ants are a serious pest in the southern United States, California, and other countries (*e.g.*, Australia, China, and Taiwan). Presently, about half of Tennessee is infested with imported fire ants, including all of the major metropolitan areas.

This national meeting, attended by over 75 scientists from across the country, was held in downtown Nashville. The meeting started with a welcome by Dr. Chandra Reddy, Dean and Director of Research / Administrator of Extension, followed by greetings from Tennessee Commissioner of Agriculture Mr. Julius Johnson. This year's meeting featured a special session on invasive pest ants given by nationally recognized experts. Topics included the Asian needle ant (Dr. Patricia Zungoli, Clemson University), invasive crazy ants (Dr. David Oi, USDA-ARS Center for Medical, Agricultural, and Veterinary Entomology), and other important invasive ants (Dr. Karen Vail, University of Tennessee).

A highlight of the meeting was the state, industry, and government reports session, which generated great group discussion by attendees from the southern states, and California and Hawaii. The meeting concluded on April 18 and 19 with a two day eXtension Imported Fire Ant Community of Practice workshop.

A post-meeting survey indicated a very high opinion of Tennessee State University and our programs. For more information about the current and past conferences, please visit the eXtension Imported Fire Ant Community of Practice website (http://www.extension.org/fire_ants), or contact Dr. Jason Oliver (joliver@tnstate.edu).



CAHNS Meat Goat Research And Education Is Back And Thriving

Recovery of the TSU Meat Goat Research Program: Two Years in the Making

May 2012 marked the two-year anniversary of the epic Cumberland River flood that devastated Nashville. The flood also devastated the TSU meat goat research program. Our TSU herd typically has 200-250 head of breeding goats. Just about half of the herd was lost in the flood. Many of the goats were rescued through actions taken by Research Assistant Mr. Mozell Byars following Dr. Richard Browning's rescue by Dr. Melvin Johnson (former TSU President) and others. After the flood, a plan was devised with a two-year recovery target. The rescued goats, about 100, plus post-flood purchases of additional goats have facilitated herd rebuilding. The fall 2010 and fall 2011 breeding seasons produced kids necessary to resume research breeding activities. We are happy to say that research will resume this fall at the point it was interrupted by the flood.

The flood not only interrupted research activities, but technical assistance and outreach activities were also halted. We annually host producers, producer groups and youth groups for hands-on training exercises. Our first formal post-flood outreach event was held September, 2011 with over 100 producers on the TSU campus. The two-day conference was held in partnership with Dr. Maria L. Leite-Browning of Alabama A&M University extension. Speakers included representatives from three USDA agencies and a special international guest speaker, Dr. Raimundo Lobo. The project website (<http://faculty.tnstate.edu/rbrowning/>) provides stakeholders with access to research updates and technical information, including a page about our flood experience.

Continuous work of the meat goat research team (Dr. Browning, Mr. Byars, Mrs. Joy Groves, and student assistants) has permitted the reestablishing of herd activities within our two-year target. The return to normalcy has been slow, but progressive. We are just about there now.

The TSU meat goat program is currently in its 10th year. It was started in response to increasing meat goat production and goat meat consumption in the US. Goat meat imports in the US increased from 156 tons in 1987 to 11,200 tons in 2007. During the same 20-year period, the US meat goat inventory expanded from 420 thousand to 2.6 million animals. For additional information about meat goat research at TSU, contact Dr. Richard Browning (rbrowning@tnstate.edu).



TSU Master Meat Goat Producer Program

Tennessee State University's Master Meat Goat Producer Program has reached over 1,000 Tennessee small goat and sheep producing families. Attendees have ranged from individuals "thinking" about getting into the goat business to those who have been in the business for many years. This program has stimulated innovative ideas, created producer networking, broadened production management skills and encouraged a working relationship within the academic and industry communities, along with government agencies and private corporations and businesses.

Topics covered in the educational sessions of the MMGPP:

- **Marketing/Economics/Budgeting:** A look at the true economics for a meat goat business: budgeting time, money and resources to the enterprise identified and marketing – how to market your product for profit (ethnic, direct, niche, conventional).
- **Environment:** Producing meat goats that are healthy and function within climatic constraints.
- **Nutrition:** The most costly expenditure on most farms. Understanding the concept of balanced nutrition for production parameters. Use of by-products and mineral/vitamin nutrition.
- **Forages:** The use of pasture grasses, forbs and mixed vegetation for forage-based meat goat production. Identification of poisonous, toxic and high tannin plants. Abatement and/or eradication of noxious plants.
- **Forestry/Silvopasture:** Goats as a diversified enterprise in cut over timber, tree plantations, and understory vegetation management.
- **Facilities/Fencing/Equipment:** Economics of portable and permanent structures and fencing. Discussions on equipment and facility need based on production management goals and goat behavior under various circumstances.
- **Predators and Predation:** Keeping goats safe from both domestic and wild intruders can be a challenge. Incorporation of livestock guardians into an enterprise.
- **Health/Biosecurity:** A herd health management program must be incorporated as part of a total operation. Learn to prevent diseases, recognize diseases and avoid internal parasite devastation. Develop and implement a premise biosecurity program.
- **Genetics:** Learn basic genetics principles, the use of performance records, planning breeding programs, herd sire selection and selecting and culling females. How to evaluate the breed that works best under your production practices.
- **Reproduction/Breeding:** This section covers economics, reproductive systems function, management and development of replacement stock, body condition scoring and artificial insemination.
- **Behavior:** By understanding the agility, aggressive and curiosity tactics of the goat, they can then be used to an advantage in production management and foraging.
- **Carcass Quality/Food Safety/Preparation:** The value of a carcass is greatly influenced by genetic decisions. Integrate quality, yield grades and carcass fabrication into pricing and target market requirements. Wholesome products begin with the producer.
- **Production Management:** Focus on body condition scoring, quality assurance management practices, record keeping, FAMACHA training, fecal analysis and other practical working "hands-on" sessions (foot trimming, vaccinating, aging, pulling blood samples, anatomy and physiology, slaughter techniques, carcass fabrication, etc.).

If you are interested in having a Master Meat Goat Producer Program offered in your area, please contact your agriculture extension specialist. This course is completely prepared and ready to offer to producers, agriculture agents, 4-H/FFA members, or those contemplating getting into the goat business. For additional information about goat production in Tennessee, contact Dr. An Peichel (apeischel@Tnstate.edu) or Dr. Richard Browning (rbrowning@Tnstate.edu).

Great American Smoke Out



On Thursday, November 17, three students from the Center for Prevention Research, Maya Foster, Carolyn Johnson, and Julie Vu, participated with the Metro Public Health Department in the American Cancer Society’s Great American Smoke Out Day. The students set up a “quit booth” sponsored by the Center for Prevention Research and the College of Agriculture, Human, and Natural Sciences, along with the U-54 grant at Tennessee State University. Under the supervision of Dr. Janice Emerson, Associate Director of the Center for Prevention Research and the Tennessee Tobacco Resource Chair for the Tennessee Cancer Coalition and Dr. Elizabeth Williams, U-54 Outreach core leader, the team set up the booth in the Tennessee State University student center, a heavily traveled area, to encourage smoking cessation for at least that day.

Approximately 30 people stopped by the booth to view the visuals including “Mr. Yuck Mouth,” a display of the dental effects of smoking, a jar filled with a year’s worth of tar and tobacco juices, and a demonstration of the odor of a person who smokes. Throughout the day, 10 quit packs were given out to individuals who forfeited their cigarettes and lighters and pledged to quit smoking for the day. The quit packs contained information on the how much money goes into buying cigarettes for a year, candy, straws, quit line cards, stress balls, and other cessation materials. From the 10 smokers who stopped by the table, the team collected six cigarettes and three lighters from 8 individuals, while the remaining 2 people pledged not to smoke. Overall, the booth was a success and the message was conveyed to the target audience. The visuals of the booth helped to deter non-smokers from tobacco use and allowed smokers to see how the tobacco affects their body. For more information about the Center for Prevention Research or the Great American Smokeout, contact Dr. Jan Emerson at jemerson@tnstate.edu.

TSU and Fisk

Host 69th Joint Meeting of NIS/BKX

Tennessee State University and Fisk University chapters of Beta Kappa Chi Scientific Honor Society (BKX) co-hosted the 69th Joint Annual Meeting of the National Institute of Science and BKX on March 21-25, 2012. BKX is a national scientific honor society and NIS is a national scientific organization that provide opportunities for students and faculty members at Historically Black Colleges and Universities to exchange information and present scholarly research papers in science and mathematics. The joint meeting was held at the Loews Vanderbilt Hotel.

Dr. Terrance Johnson (Chair Biological Sciences at TSU) and Mrs. Patricia McCarroll (Professor of Biology at FU) served as co-chairs of the local Planning Committee. Together with the NIS Planning Committee, they planned and executed what became one of the most successful meetings in the history of the organizations. The theme of the meeting was “Social Determinants of and Progress in Health Disparities” and consisted of several key activities which delighted the more than 500 participating students and faculty. In addition, more than 30 scientific, government, and university recruitment exhibits were displayed, and several workshops were held on the TSU Main Campus. The meeting closed with an Awards Banquet where two TSU Ph.D. Biological Science students, Mr. Carl Darris and Mr. James Tyus, received awards for their research presentations in the Graduate Division, and Ms. Tyranny Pryor, an undergraduate Biology student, received the William H. McArthur Award as the most dependable female undergraduate BKX member at TSU.



Over 300 participants attended a luncheon and participated in workshops on TSU Main Campus

- Keynote presentations:
 - Dr. James Hildreth, Dean, College of Biological Sciences at the University of California Davis who is a leading HIV researcher and developer of the chemical condom.
 - Dr. Thomas LaVeist, Director, Center for Health Disparities Solutions at the Johns Hopkins Bloomberg School of Public Health who is a well established author that focuses on Race, Ethnicity, and Health Disparities.
 - Dr. George Hill, Assistant Vice Chancellor for Multicultural Affairs, Assistant Provost and Vice Chancellor for Health Affairs at Vanderbilt University who spoke about the responsibility of being a good leader.
- The Hot Zone Summit: STDs at HBCUs, A Major Health Concern, which consisted of a panel of individuals moderated by Dr. Marian Johnson-Thompson, Professor Emeritus of Biology at the University of the District of Columbia, Washington, DC.
- Student oral and poster presentations in the biology, chemistry, psychology/science education, and mathematical sciences (computer science, engineering, physics, and mathematics) categories
- The NIS Memorial Lecture: The HeLa Saga with special guest, Mr. David “Sonny” Lacks, Jr.: This discussion session focused on the family of Henrietta Lacks who was the donor of the cervical cancer cell line. This cell line was derived in 1951 from Mrs. Lacks and is the most widely used cell line in scientific research. Yet, her family has received no financial gain, not even from the authors of books that tell their story.



TSU Chapter of BKX Inducts 20 New Members



On April 10, 2012, the TSU Chapter of Beta Kappa Chi Scientific Honor Society (BKX) held its annual induction ceremony. There were 20 new inductees who accepted the pledge to uphold the values of BKX. The motto of the organization is, “Science Holds the Golden Key to the Royal Palace of Knowledge”, and the symbol of the organization represents high scholarship, scientific achievement and accurate research.



Dr. Clyde Chesney Dies

It is with great sadness that the College of Agriculture, Human and Natural Sciences learned of the passing of Dr. Clyde Chesney on April 18, 2012.

Dr. Chesney retired as Interim Associate Dean for Extension at Tennessee State University in the School of Agriculture and Consumer Sciences August 31, 2009. He served as Administrator of the Tennessee State University Cooperative Extension Program in Nashville from August 1998 to July 2008. Dr. Chesney was a 24-year veteran of the North Carolina Cooperative Extension System where he served as director for the Piedmont and Northern Piedmont Districts.

While at Tennessee State University, Dr. Chesney was instrumental in the initiation of many new projects and programs. Among them was the establishment of the Memorandum of Understanding on Extension Work in the State of Tennessee between TSU and the University

of Tennessee. The purpose of the agreement is create a single, comprehensive program for extension activities in the state of Tennessee.

A Salutatorian of E.E. Smith High School (Fayetteville, NC) Class of 1967 and a member of the E.E. Smith Alumni Association, Dr. Chesney earned his BS and MS degrees from North Carolina State University and his Ph.D. from Michigan State University. He was a life member of Alpha Phi Alpha Fraternity. Chesney was a football 'walk-on' at N.C. State, eventually earning a scholarship and selection to the 1971 Atlantic Coast Conference All-Academic Football Team. He was the first African American to start in football at North Carolina State.

Dr. Chesney is survived by his loving wife of 41 years, Anita Miller Chesney; sons, Clyde Jr., Charles (Tarah Munoz); daughter, Camille Pitts (Tremayne); and four grandchildren.



Dr. Newkirk Dines with President and First Lady

Dr. Robert Newkirk and his daughter Regina Newkirk had the opportunity for some interesting dinner conversation recently. Regina was one of three donors to President Obama's campaign invited to bring a guest and dine with President and Mrs. Obama in Washington DC on March 8th. Dr. Newkirk states it was an enjoyable and very memorable experience.



TSU Addresses Sustainable Practices

Through a government funded grant, Aleta Sue Ballard de Ruiz and Margaret E. Machara, PhD, CFLE have been conducting workshops to address sustainable practices. Attendees are encouraged to conserve water, manage their waste responsibly, improve their air quality, and be aware of their energy use. Tennessee State University students enrolled in design classes and principles of parenting classes were involved with collecting information and developing displays for the concepts covered in the workshops. The emphasis of the workshops are manageable steps that people can take to utilize our earth's resources more responsibly while saving money. Over 200 families have



participated in the workshops over the last year. Since habits develop early, the workshop was adapted build on children's natural interests and enthusiasm about the environment. Presentations have been made to over 40 children, first through fifth grade, to encourage them to start developing practices now that will help their family and shape their own future. Workshops will continue through the next year, reaching both adults and children in the community.

Please contact Aleta Sue Ballard de Ruiz (aballard@tnstate.edu) or Dr. Margaret E. Machara (mmachara@Tnstate.edu) for more information about sustainability and sustainable lifestyles.

Tennessee State University hosts Outreach and Assistance Conference

Over 250 people attended the Outreach and Assistance Conference held February 22 - 24, 2012. Sponsored by the College of Agriculture, Natural and Human Sciences, through the Cooperative Extension Program, the conference was held at the Embassy Suites in Nashville, Tennessee. Arvazena E. Clardy Ph.D., Program Coordinator/Principle Investigator states "The goal of the conference was to provide education information and assistance to small, limited resource, minority and socially disadvantaged farmers, forest landowners and ranchers to operate their farms more efficiently." This conference was composed of five educational programs: Animal Sciences (goats, sheep, fowl, cows and pigs), Small Business Development, two Agriculture and Natural Resources programs, and a Youth Development program.



Following a keynote address by Ms. Debra K. Kenerson, Director, USDA/NASS Tennessee Field Office, speakers for the conference included information and education from Tennessee State University extension, research and academic faculty, Extension agents, business owners, producers, and federal and state agencies (Farm Services Agency, Natural Resource Conservation Services, Rural Development and Tennessee Department of Agriculture). For additional information about outreach and assistance for small or limited resource farmers, contact Dr. Clardy at aclardy@tnstate.edu.

Teaching Kids to Grow Their Own Vegetables

TSU/UT Claiborne County Extension Agent Kelley Frady, shown here, helps students in her Junior Master Gardener Program make the craft for the day. Kelley has been working with students and teachers at Midway Elementary School to educate the students inside and outside the classroom about gardening. She is conducting the program with the students twice a week to ensure their knowledge of gardening will help them perpetuate the school garden. The school was awarded the Community Garden Grant from The Tennessee Farm Bureau last year and has worked hard to plant vegetables this spring. Although gardening is just beginning for the youngsters, radishes, spinach, and lettuce are planted and growing well! Kelley plans on working with other schools in the county to produce school gardens and would love to continue until each school in the county is producing some type of garden at their school.



Take A Virtual Coffee Break With TSU's Virtual Coffee Shop Webinars

We are offering a new innovative way for you to keep up with important and timely topics in Extension educational program areas by presenting the “*TSU Extension Virtual Coffee Shop*” monthly public outreach educational webinars.

These webinars are offered the second Wednesday of every month and consist of three, fifty minute webinars covering the critical and useful topics in each of the TSU Extension educational program areas.

The first *TSU Extension Virtual Coffee Shop* webinar begins at 9:00 a.m. and ends at 9:50 a.m. and covers various topics in the areas of Agriculture and Natural Resources. The second webinar begins at 10:00 a.m. and concludes at 10:50 a.m., and covers important topics in the area of Family, Community and Nutrition Education. The third webinar starts at 1:00 p.m. and ends at 1:50 p.m. It covers topics and issues dealing with 4-H and Youth Development.



Information and a brochure of the complete schedule of Virtual Coffee Shop Webinars is available at www.tnstate.edu/extension/coffee_shop_webinar.aspx.

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New Additions To The CAHNS Team



Dr. Dalia Abbas recently joined the staff of the Department of Agricultural and Environmental Sciences as a Research assistant Professor in Forestry. Dr. Abbas graduated with a Ph.D. from the Department of Forest Resources at the University of Minnesota. Her areas of research include forest biomass feedstock supply logistics, ecosystem services protection, logging cost analysis, technical standards development, life cycle assessment, and sustainability sciences. Prior to her degree, she was a technical researcher for British Standards Institution in London, United Kingdom, researching technical standards and the chain of custody of wood products. Before joining TSU she was a Visiting Assistant Professor with Michigan State University, working on forest biomass logistics and economics for two state-wide and industrial projects. She helped develop and teach a bioenergy concentration for the College of Engineering and Natural Resources from 2009-2011. Dr. Abbas taught in forest operations, management, supply logistics, economics and the social and environmental drivers of sustainability. She completed post doctoral work with the Oak Ridge National Laboratory in Oak Ridge, TN and the University of Minnesota in St. Paul, MN on the production and utilization of forest biomass in different geographical regions. Dr. Abbas can be reached at dsaleh@Tnstate.edu.



Dr. Weiguang (Abe) Yi joined the Department of Agricultural and Environmental Sciences in the College of Agriculture, Human and Natural Sciences in May 2012 as an Assistant Professor. His research is in the field of food chemistry, and currently focuses on phytochemicals, functional foods, bioactive food components, and prevention of obesity, cancer and chronic inflammation.

Dr. Yi obtained his MS in Horticulture and Ph.D. in Food Science from the University of Georgia, Athens, GA. His dissertation evaluated anticancer activities of phenolic compounds in blueberries and muscadine grapes. In addition to his research experience at UGA, Dr. Yi has worked in the Chemistry Department at Appalachian State University in North Carolina and Monell Chemical Senses Center which is affiliated with the University of Pennsylvania in Philadelphia. Contact Dr. Yi at wyi@tnstate.edu.



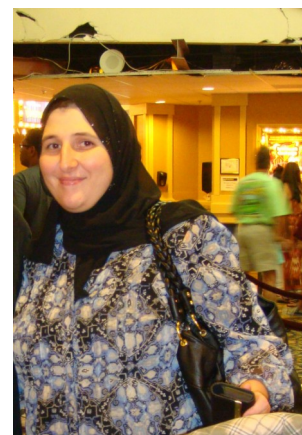
Dr. Ying Wu joined our faculty in June 2012 as an Assistant Professor. She obtained her MSc. and Ph.D. from the Department of Food Science, University of Guelph, Canada. Prior to joining TSU, Dr. Wu had worked with Agriculture and Agri-Food Canada for 11 years. Her previous research activities focused on extracting health-promoting components from various agri-products and by-products, investigating the structure-function relationships of different molecules, and evaluating synergistic interactions of polymers in mixed systems. Her research covers physical, chemical and physiological properties of health-promoting components, and the application of these components into different areas, such as dietary-fiber enhanced food, and encapsulation of bioactive compounds. Dr. Wu will be developing food products with health beneficial effects and enhanced quality. Contact Dr. Wu at ywu@tnstate.edu

New Additions, continued

Dr. Karla Adesso (kaddesso@tnstate.edu) joined the College of Agriculture, Human and Natural Sciences as a Research Assistant Professor in Chemical Ecology at the Otis L. Floyd Nursery Research Center on June 4th, 2012. She received her Ph.D. in Entomology from the University of Florida in December 2008. Her dissertation focused on the behavioral ecology of the pepper weevil, a major pest of sweet and hot peppers in the southern United States and Central America. She continued this work with a postdoctoral position in the Chemistry Unit of the USDA-ARS Center for Medical, Agricultural and Veterinary Entomology in Gainesville, FL where she worked on identifying attractive host plant compounds for improving pepper weevil traps, as well as on the identification of an oviposition deterrent produced by female weevils. In addition to her work with pepper weevil, Dr. Adesso has been involved with projects on the behavior and chemical ecology of Colorado potato beetle, southern chinch bug, leaf-footed cactus bug and sting nematode. Her research interests lay in the areas of host plant attraction and discrimination, mating behavior, insect-insect chemical communication and behavioral manipulation techniques for pest management. Dr. Adesso will be working in collaboration with the entomology program in McMinnville to develop improved management tools for critical pests of the nursery industry including wood-borers, imported fire ants, spider mites and other invasive pests.

Family and Consumer Science Students Making A Difference

Helen Qazi Majeed is a Fall 2011 graduate of the Department of Family and Consumer Sciences. Helen's major was Family and Consumer Sciences with a concentration in Child Development and Family Relations. Soon after graduation, Helen followed through with her plans to move with her young family to Kurdistan where she is currently employed with Sabis Educational Services. At Sarwaran International School she teaches English to 1st and 2nd graders. She also teaches basic Social Studies twice a week to the first graders. Sarwaran is part of the PPP Schools (Public Private Partnership) in Kurdistan; which are built by the Kurdish government and managed by Sabis. The PPP school is a free and private school setting for only the children and grandchildren of those who lost their family members due to Saddam Hussein's regime.



Virginia Covey is a Family and Consumer Sciences major with a concentration in Child Development and Family Relations. As part of her program of study, she completed her internship at A Kids Place Child Advocacy Center in Lawrenceburg, Tennessee. The Center offers medical evaluations and crisis counseling in cases of suspected child abuse. They also provide training and public education services to Lawrence, Giles, Wayne and Maury counties.

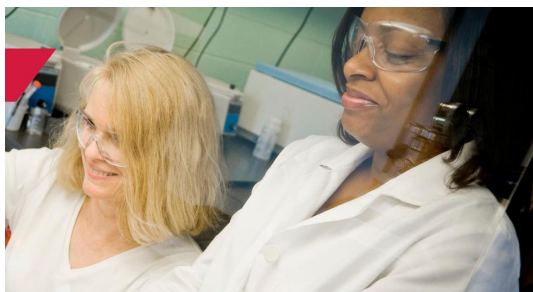
While interning at the center, Virginia encountered a woman who was coping with the recent abuse of her children and was at a loss as to how to provide food for her children and nephew. She had trouble getting assistance since everything was in the perpetrator's name. Virginia determined that a food program would be helpful to Center clients. She talked to the staff and began to plan an in-house food pantry. The center now has a program to collect and distribute food and dry goods to the families they serve.



CAHNS

Award and Achievements

Joint Chemistry/Biology Biomedical Training Grant



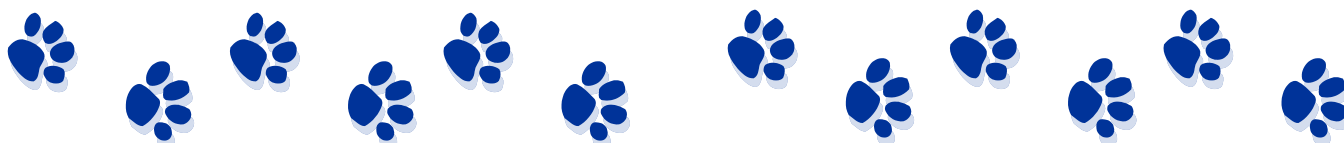
Drs. Margaret Whalen (Chemistry) and Prem Kahlon (Biology) have been awarded a \$467,000 grant to assist junior and senior undergraduate students who intend to pursue a Ph.D. in biomedical related areas. Students participate in summer research at other institutions and do academic year research with a mentor at TSU, Meharry, or Vanderbilt.

Funded by the National Institutes of Health, the Minority Access to Research Careers (MARC) program has the primary objective to increase the number of highly trained underrepresented biomedical and behavioral scientists in leadership positions who can significantly impact the health-related research needs of the nation. To achieve this overarching objective, the program supports the academic preparedness and research training of honors undergraduate science and math majors at minority/minority-serving institutions to prepare students to pursue Ph.D. degrees (or combined degrees such as M.D./Ph.D.) in biomedical and behavioral sciences at highly selective graduate institutions. The program pays a portion of the student's tuition and fees and provides a monthly stipend for living expenses. It also supports the student's travel to national meetings where they can present their research results.

This is a recurring program at TSU, it has been funded since 1980 and has graduated 175 students, thirty of these had received Ph.D.s and several are on the way to get their Ph.D. Two dozen students have received other professional degrees

Other New Grants In The College

- **Junming Wang.** Measurements and Modeling of Gene Flow in Horseweed (*Conyza canadensis*). \$500,000
- **Korsi Dumenyo.** Molecular Characterization of *Erwinia tracheiphila* Strains for Cucurbit Host Specificity. \$150,000
- **Michael Ivy.** Collagen IV Assembly and Trafficking. \$442,000
- **Agnes Kilonzo Nthenge.** Integrated Approach to Control to control *Clostridium difficile* in Limited Resource Poultry and Pig Farms. \$100,000



Faculty & Staff

Department of Agricultural and Environmental Sciences faculty members **Dr. Zena Clardy** and **Dr. Jason DeKoff** were recognized as recipients of the Growing Service Award for their work with undergraduate students. The awards were presented during TSU's Center for Service Learning and Civic Engagement Community Partner Luncheon on April 10th.



Dr. Brenda McAdory has been selected by the American Society of Cell Biology to be a visiting professor this summer at Johns Hopkins University in Baltimore.

As of last year (2010-2011), the **TSU Cooperative Extension** county agents located in 23 counties and the Extension Specialists located on the main campus made approximately 150,000 direct educational contacts and approximately one million indirect (mass media) educational contacts by providing research based, practical and useful information to the people of Tennessee for better living.

COLLEGE OF AGRICULTURE, HUMAN AND NATURAL SCIENCES EMPLOYEE RECOGNITION AWARDS FOR SERVICE 2012

RETIREES

Constantine Fenderson
Robert Harrison
Prem Kahlon
Cindy Thompson

5 YEARS OF SERVICE

Joseph Hutchings
Walter Malone
Christopher Robins
Michael Shirley

10 YEARS OF SERVICE

Debra Alexander
Mohammad Al-Masum
Fur-Chi Chen
Tracey Hagan
Samuel Nahashon
Nadeer Youssef

15 YEARS OF SERVICE

Mary Asson-Batres
Morris Bond
Michael Ivy
Jason Oliver
Anthony Tuggle

20 YEARS OF SERVICE

Deborah Long
Elaine Martin
Fisseha Tegegne

25 YEARS OF SERVICE

Brenda McAdory
Elbert Myles

30 YEARS OF SERVICE

Samuel Dennis
Sandria Godwin

35 YEARS OF SERVICE

Mozell Byars
Gregory Komives
Mary Wakefield

40 YEARS OF SERVICE

Surendra Singh

45 YEARS OF SERVICE

Prem Kahlon

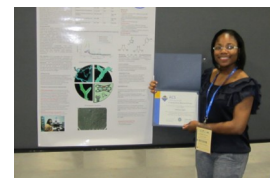
Students

Ms. Ebony Arnett, a spring graduate with a degree in Family and Consumer Sciences, was recognized with the Distinguished Student Leadership Award at the spring commencement. In addition to this recognition, Ms. Arnett was chosen as the Outstanding Undergraduate Student in the Department of Family and Consumer Sciences. Ebony was born in Columbus, Ohio and raised in Atlanta, Georgia. After graduation, she plans to become a Wedding/Event Planner and Interior Designer. She is planning to earn a Master's Degree in Business Marketing and plans to own her own wedding planning business, and open a dance studio for less fortunate children. Ebony also wants to give to the community by volunteering at foster homes, hospitals, and travel around the world to help children in need. "I dislike seeing children suffering, so I will make an effort to help children in need all over the world". Congratulations Ebony!

Ms. Charla L. Juniell of Milwaukee, Wisconsin graduated with honors May 5, 2012 and was awarded the Student Academic Excellence Award. This award recognizes the student with the highest GPA of their graduating class. Ms. Juniell's degree consisted of a major in biology with a minor in chemistry. During her matriculation at Tennessee State University she was a member of the Cheerleading Association, Tennessee Louis Stokes Alliance for Minority Participation Program, and the Academic Success Program. She was also a member of the First Generation Student Program, the Honors Program and the Student National Medical Association. In addition, she gained research experience working with Dr. Siddiquee (Chemistry), Dr. Myles (Biological Sciences), and Dr. Boadi (Chemistry) at TSU, and she conducted two Summer Research Internships at the University of Louisville. She aspires to become a physician specializing in obstetrics and gynecology. Charla will participate in the Meharry Medical College HCOP program this summer and work at Centennial Hospital as an Anesthetic Technician while preparing to enter medical school in the near future.



Andrianna Taylor was recognized for her research in analytical chemistry during the American Chemistry Society Annual Meeting held in San Diego this spring. Working with Dr. Nsoki Phambu, Andrianna is an undergraduate majoring in chemistry.



Mr. James Tyus won first place in the Graduate oral Competition during the 2011 Professional Agricultural Workers Conference. He received a certificate and a \$500 check. Congratulations James!

Research Symposium

It was a clean sweep in the Oral Presentation Graduate Sciences Division for the Department of Agricultural and Environmental Sciences at the 34th Annual University – Wide Research Symposium. Congratulations to James Tyus (1st Place), Marsha Palmer (2nd Place) and Jacqueline Joshua (3rd Place).

Not to be outdone, Biology had a sweep of their own in the Poster Presentation Graduate Sciences Division: Carl Darris (1st Place) Tasia Brown (2nd Place) Kelsi Hurt (3rd Place).

Jacqueline Reid won First Place in the Oral Undergraduate Science division. **Great job everyone!**

Kappa Omicron Nu Honor Society

Kappa Omicron Nu (KON) is the Honor Society for Family and Consumer Sciences. Students in this organization are upper level students that have exhibited excellence in their classes. This spring, KON inducted seven new member; Paris Slayden, Nataliia Johnson, Ernest Bradshaw, Adrienne Drummond, Tangeia Smith, Danielle Deberry, and Kayla Rogers.

Members of KON engage in projects that serve the Nashville community. This spring, students decided to conduct a shoe drive for Soles for Souls. Soles for Souls collects shoes in any condition to distribute to individuals worldwide. The donated shoes help poor families in the United States and enable people in other countries to safely walk to work and school. Kappa Omicron Nu collected an abundance of shoes.

Kappa Omicron Nu students also engage in activities to prepare them as future professionals. Alex Frederick will travel to Michigan State this summer to participate in the KON Conclave where he will present a project concerning ways to make water from contaminated streams usable for crop irrigation. Interested in being part of Kappa Omicron Nu? Contact Mrs. Ballard de Ruiz at aballard@tnstate.edu.



Training the Next Generation of Healthcare Providers: 2011-2012 Academic Year

Students pursuing professional careers in the pre-dental, pre-medical, pre-optometry and pre-pharmacy endeavors at Tennessee State University have a great future.

Institutions accepting TSU students to medical school for the 2012-2013 school year

- Cooper Medical School of Rowan University (1)
- East Tennessee State University College of Medicine (1)
- Florida International University College of Medicine (1)
- Loma Linda University School of Medicine (1)
- Medical College of Wisconsin (1)
- Meharry Medical College (5)
- University of Cincinnati College of Medicine (1)
- University of Tennessee College of Medicine (1)
- Yale University School of Medicine (1)

For additional information about careers in the healthcare profession contact Dr. Lois Harlston (lharlston@tnstate.edu).

MANRRS Conference

Tennessee State University was well-represented at the Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS) Career Fair and Training Conference held in Atlanta, Georgia from March 29 – April 1, 2012. Thirty students, representing the Departments of: Agricultural and Environmental Sciences, Biology, and Family and Consumer Sciences, Engineering, and Psychology attended the conference. Most of the TSU students participated in at least one contest at the conference. Contests included poster and oral presentations, debate team, and the MANRRS Bowl Team. The Bowl Team progressed to the third and final round in the MANRRS Bowl Contest, a general agricultural knowledge competition.

MANRRS is an organization established to foster and promote the agricultural sciences and related fields in a positive manner among ethnic minorities. For student members, MANRRS provides role models and networking opportunities. MANRRS also offers students opportunities to enhance leadership and organizational and public speaking skills, and to experience professional critique of scholarly work in a user friendly environment. To become involved in MANRRS, or for further information, contact Mr. William Hayslett at whayslett@tnstate.edu.



Graduates - May 5, 2012

B.S. Degree in Agricultural & Environmental Sciences

Marie Blacksmith
Derrick Bruce
Christopher Conner
Sherri Degraphenreed
Mari-Ashli Foy
Ross Killebrew
Garrett Morris
Victoria Morris
Victoria Turnipseed Henderson
Nicholas Williams

M.S. Degree in Agricultural & Environmental Sciences

Anna Coleman Davenport
Sophia Evans
Stephen Lewis
Clarissa Parks Lewis
Nicholas Waynick

B.A./B.S. Degree in Family & Consumer Sciences

Tara Arcuri (Early Childhood)
Crystal Armstrong (Child Development)
Ebony Arnett (Design)
Mikayla Austin (Early Childhood)
Shanelle Burton (Childhood Development)
Emmaleigh Casada (Early Childhood)
Whitley Collier (Child Development)
Danielle Deberry (Child Development)
Adrienne Drummond (Design)
Tamia Frierson (Child Development)
Keeva Hamilton (Early Childhood)
Janet Hopkins (Early Childhood)
Christine Howse (Child Development)
Kyndall Lewis (Fashion Merchandising)
Jameshia Patterson (Child Development)
Antoinette Quarles (Early Childhood)
Kea Swanson (Foods & Nutrition)
Penny Wilson (Early Childhood)
Redricka Wilson (Child Development)
John Woodward (Design)



B.S. Degree in Biology

Winnie Allouch	Thomas Lavallais
Doris Appiah	Adrianna Madison
April Bellamy	Andrea Magee
Tahirah Bradley Stephens	Daniel Mcendree
Lekeisha Carter	D'Aria Morris
Tenika Carter	Jacqueline Reid
Shamiya Dotson	Brittany Richards
Tangela Dover	Amanda Ruff
Jermeca Green	Jacob Sanders
Brandon Hardin	Charmaine Shaffer
Adia Ingram	Demetrius Sudduth
Breyonna Jarrett	Shamia Thomas
Jamiell Johnson	Felisha Williams
Charla Juniel	Shatira Wilson

M.S. Degree in Biology

Leah Davidson
Toral Mehta
Marlika West
Angela Whitin

Ph.D. Degree in Biology

James Tyus

B.S. Degree in Chemistry

Kalimah Anderson
Laurance Cain
Sarah Dallaire
Andrea Durham
Renetra Gist
Aikym Hairston
James Hardison
Shackoya Orum
Kiara Simmons
Andrianna Taylor
Lauren Tyler
Brittney Wade
Stephen Winston

M.S. Degree in Chemistry

Meoshia Battle
Ashley Bradley
Charles Champion
Hadijatu Kamara
Adrienne King



Degree Programs Offered In The College Of Agriculture, Human and Natural Sciences

Agribusiness	Early Childhood Education
Agricultural and Extension Education	Family and Consumer Sciences Education
Animal Science/Pre-Veterinary Medicine	Family Financial Planning Certification
Applied Geospatial Information Systems	Fashion Merchandising
Biochemistry	Food Service Management
Biology with Teacher Certification	Food Technology
Cellular and Molecular Biology	Foods and Nutrition (Dietetics)
Chemistry	General Biology
Chemistry with Teacher Certification	Plant and Soil Science
Child Development and Family Relations	Pre-Medicine, Pre-Dentistry, Pre-Pharmacy Programs
Design	Professional Chemistry

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