



COLLEGE OF AGRICULTURE, HUMAN
AND NATURAL SCIENCES LINK
SPRING 2012



*Linking The College
To Its Alumni And Friends*



Otis L. Floyd Nursery Research Center
472 Cadillac Lane
McMinnville, TN 37110



Message From the Editor

Dear Readers:

For me, the start of something new usually makes me want to reflect back. This inaugural issue of the College of Agriculture, Human and Natural Sciences Link is no different. Upon his arrival in 2008, as part of Dean Reddy's plan to improve communication with our students, alumni and other stakeholders, he asked that we initiate a newsletter. In the fall of 2008, the first issue of the AGFACS Link was printed. That initial publication was crude in comparison to what you are reading now; the formatting was boxy and there were only a handful of pictures. However, thanks to the hard work of many people, especially Rick Stone, the co-editor of this publication, a lot has changed since then. Not only has the newsletter changed, but we have changed as well. We are no longer a School with two departments, but are now the College of Agriculture, Human and Natural Sciences, with four departments: Agricultural and Environmental Sciences, Biology, Chemistry and Family and Consumer Sciences (see page 10). Our undergraduate and graduate enrollments are up, our graduation rates are up, our external funding is up, we have more faculty, we are offering more classes, and are developing new curricula to respond to today's career marketplace.

Yes, much has changed in the last three years. However, one thing that has not changed is the enthusiasm of our faculty to bring out the best in every one of our students and to prepare them for success in their chosen careers. It is with this same enthusiasm that I invite you to read Volume 1, Number 1 of our new newsletter. We may have a new name, but we have the same spirit. I invite you to look forward with me to many informative editions of the College of Agriculture, Human, and Natural Sciences Link in the years to come.

Sincerely,

Nick Gawel, Co-editor



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



March 06, 2012

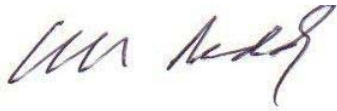
Dear Alumni and Friends:

This is the first issue we are publishing under the new name, the College of Agriculture, Human and Natural Sciences Link. As part of the restructuring of the University, the Departments of Biology and Chemistry and the Center for Prevention Research were moved to the College of Agriculture in 2011 (see pages 10-13). We now have close to 1100 students and 200 employees, the largest we have ever been. I am also pleased to report to you that we have completed the restructuring process that was initiated in 2008, soon after my arrival. This restructuring included integration of the three land-grant mission areas: teaching, research, and extension. The key steps of this integration included moving research and extension faculty to the academic departments to work under the supervision of department chairs; joint appointments to faculty; and integration of research and extension centers under the new name of the *Agricultural Research and Education Centers*. Among other positive contributions, this restructuring has doubled student enrollment, increased external funds secured by faculty (from \$2 million to \$12 million), increased state support and private donations, more than doubled county operations (from 12 counties to 30), and increased the number of faculty.

The current structure of the College includes four academic departments, three Agricultural Research and Education Centers, the Center for Prevention Research, the Cooperative Extension Program, and the Institute for Food, Agricultural, and Environmental Research. The finances and the personnel of the College are managed through a newly created Business Office. We are also trying to complete our faculty and staff recruitment process and move our focus to improve the productivity of the faculty.

Importantly, I want to bring to your attention in this issue that 2012 is our Centennial Year! We have several exciting programs throughout the year, marking the 100th anniversary; significant among the programs is our traditional Agricultural Week Celebrations in April. This year, in honor of the Centennial, we will have the Secretary of Agriculture, a Nobel Laureate, and Nashville's Mayor among our guest presenters during this week (see page 8). I am also excited to report to you that the College has embarked on a program to strengthen our Dean's Scholarship program (see page 5) and I seek your help in building funds for this program. You will be interested to know that 100% of our faculty and Nashville alumni have committed to contribute to this program. I request that each one of you contribute to this worthwhile program that supports meritorious students pursuing our academic degree programs. I also invite each one of you to attend one or more of our functions during this centennial year and feel the spirit of TSU.

Sincerely,



Chandra Reddy, Ph.D.

Dean and Director of Research/Administrator of Extension





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



Dear Alumni and Friends,

According to a recent study conducted by the College of Business, Tennessee State University contributes more than \$600 million annually in economic impact to the state of Tennessee. TSU, Nashville's only comprehensive, public university, generates 5,500 jobs, injects about \$330 million directly into the state's economy and generates an additional \$280 million in indirect impact.

The above information is important to the role of the university in the state of Tennessee. However, closer to home, TSU in general and especially the College of Agriculture, Human and Natural Sciences, makes a personal difference in the lives of students and families. Nearly 97% of students attending TSU require some form of financial assistance to be able to attend and receive the lasting benefits of a life changing TSU education.

In honor of TSU's 100th year of continued focus on excellence, our President, Madam Portia Shields has initiated a Centennial Scholarship Fundraising Campaign. Since the College of Agriculture, Human and Natural Sciences has played a major role in the university's continued success since its inception, we do not want to be left out of this important initiative. To this end, we are requesting your assistance in this endeavor by contributing scholarship funds for students majoring in programs offered by our college.

At a recent faculty meeting, 100% of our faculty in attendance committed to contribute to this scholarship fund before June 30, 2012. Likewise, 100 % of the local members of the TSU Agricultural Alumni Organization have committed to contributing. It is our hope that you will join us in this worthwhile effort as we continue the traditions of leadership and excellence for which the College of Agriculture, Human and Natural Sciences are known.

You may contribute by making your check payable to: **TSU Foundation**

On the For/Memo line designate one of the following:

Agriculture Scholarship
Biology Scholarship
Chemistry Scholarship
Family & Consumer Sciences Scholarship

Donations should be mailed to:

College of Agriculture, Human and Natural Sciences
Tennessee State University
3500 John A. Merritt Blvd.
Nashville, TN 37209-1561
Attn: William F. Hayslett, Sr.

Thank you of your continued support of Tennessee State University and the College of Agriculture, Human and Natural Sciences.

Sincerely,



William Hayslett, Sr.
Assistant Professor/Academic Coordinator



*Join The
College of Agriculture, Human and Natural Sciences
In Celebrating*



Tennessee State University's

CENTENNIAL

April 14 - 21, 2012

TENNESSEE STATE UNIVERSITY

COLLEGE OF AGRICULTURE, HUMAN AND NATURAL SCIENCES WEEK

APRIL 16- 20, 2012

TENTATIVE PROGRAM SCHEDULE

Monday, April 16, 2012

Presentation - (Keynote Speaker) US Secretary of Agriculture Honorable Tom Vilsack (invited)	10:00 - 11:30	Floyd/Payne Forum
Luncheon (Invitation Only)	12:00 - 1:30	President's Dining Room

Tuesday, April 17, 2012 - Celebrating Chemistry Day

Registration	8:30 - 9:30	
Career Fair	9:00 - 12:00	Boswell Science Complex Foyer
Tours of the Chemistry Department	9:15 - 10:00	
Chemistry Demonstrations	10:00 - 11:15	Boswell Room 122
Chemistry Challenge	11:15 - 12:15	Boswell Room 012
Student Poster Presentation	12:00 - 2:00	Boswell Science Complex Foyer
Guest Speaker (Nobel Laureate) Professor Barry Sharpless	2:30 - 4:00	Poag Auditorium, Humanities

Wednesday, April 18, 2012

Lab/Program Demonstration Tours	9:00 - 10:00	School Facilities
Presentation - (Keynote Speaker) Honorable Karl Dean, Mayor	3:00 - 4:00	Farrell - Westbrook Room 118
Reception	4:00 - 5:00	Farrell - Westbrook Room 118

Thursday, April 19, 2012

College Awards Luncheon	11:30 - 2:00	Farrell - Westbrook Room 118
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Friday, April 20, 2012

Student's Picnic	11:00 - 2:00	Farrell - Westbrook Plaza
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You're Invited To The

Seventeenth Annual

Agriculture and Home Economics

Hall of Fame Banquet & Presentation

of Inductees Celebration

It is with great excitement that we let you know about our upcoming *Seventeenth Annual Agriculture and Home Economics Hall of Fame Banquet & Presentation of Inductees Celebration*. Our event this year will be held Friday, September 29, 2012 at the Gaylord Opryland Hotel and Convention Center. This event is hosted by Tennessee State University's College of Agriculture, Human and Natural Sciences.

We are expecting this year's activities to be especially memorable as we celebrate our centennial. Your attendance and participation are especially desired as part of this once-in-a-lifetime celebration. In addition to the banquet, these activities are expected to offer opportunities to reacquaint yourself with friends and classmates and to spend time renewing yourself with your expanded and improved campus.

We invite your assistance by identifying and/or nominating potential candidates for induction into the Hall of Fame. You may request a nomination package by contacting any member of the Hall of Fame Committee or the people listed below. We are also inviting you to become a 'Friend of the Hall of Fame' by making a contribution to the Hall of Fame. The efforts of the 'Friends of the Hall of Fame' assist us in continuing and improving the excellent quality of the induction ceremony, and other aspects of the program.

For additional information, please contact: Mr. William Hayslett, Sr. at (615) 963-5438, whayslett@tnstate.edu or Mrs. Sherry Crudup at (615) 963-5832, shpatterson@tnstate.edu.

We hope to hear from you soon and see you at this special celebration!

Tennessee State University Creates The College Of Agriculture, Human and Natural Sciences



As part of a university-wide reorganization, the Tennessee Board of Regents has approved creation of the College of Agriculture, Human and Natural Sciences at Tennessee State University. The new college is composed of the Department of Agricultural and Environmental Sciences (formerly the Department of Agricultural Sciences), the Department of Biology, the Department of Chemistry, and the Department of Family and Consumer Sciences. In addition to the four academic departments, the Center for Prevention Research (formerly the Center for Health Research), the Cooperative Extension Program, and the Institute for Food, Agricultural and Environmental Research (formerly the Institute for Agricultural and Environmental Research) are also part of the new college.

Dr. Chandra Reddy, formerly Dean of the School of Agriculture and Consumer Sciences, has been named Dean of the College. “This is a great day for us and a great day for TSU”, he stated, “the synergy created by the combination of these faculty and resources will lead to great things for our students and our stakeholders.”

Getting To Know The Newly Added Departments And Centers

The Department of Biological Sciences



*Dr. Terrance Johnson,
Department Head, Biology*

The Department of Biological Sciences was established in 1927, the same year that “Normal” was dropped from the name and the institution became the Tennessee Agricultural and Industrial College. The first department had five faculty members, and courses were offered that reflected the boundaries of the biological sub-disciplines at that time (botany, zoology, embryology, etc.). Gradually, the department expanded to include preparation for graduate school and for careers in industry. In 1948, the department initiated a graduate program leading to an MS degree and in 1997 the program was expanded with the addition of a joint doctoral degree with Agricultural Sciences.

The department today consists of 21 tenured or tenure-track faculty members and over 400 students matriculating in its degree programs. Dr. Terrance Johnson is

Continued on the next page

Biology Cont. Chair of the department. Nearly 7,000 students enroll in department courses each academic year as a result of the department offering service courses supporting various degree programs of the University. Preparation of students for careers in secondary education is still an important part of the department's mission, but most students graduate with an emphasis in either general biology or cell and molecular biology. A large number of students who receive the BS degree in Biology go on to graduate and professional schools or to entry-level positions in the health science industry.

Undergraduate students participate in several co-curricular programs. Minority Access to Research Careers is a fellowship program for department students interested in biomedical research careers and offers special courses at TSU, research support during the school year, and internships in labs at other institutions during the summer. The department is part of a consortium that offers summer research experiences in ecology at the Savannah River Field Ecology Station in Georgia. Affiliation with the Gulf Coast Research Laboratory enables undergraduate and graduate students to take summer courses offered at the laboratory for credit at TSU. In addition, six student organizations support undergraduate education and career choice, Beta Kappa Chi, Xi Phi Lambda, Student National Medical Association, American Medical Students Association, American Dental Students Association and the Biology Club. The Greek letter organizations are honor societies that promote and recognize academic excellence and the associations and clubs offer preparation for acceptance into medical school, dental school and other professional programs requiring a life science educational background.

Scholarly research is also an important component of the department. There are ten research laboratories housed in McCord and Harned Halls. These buildings are equipped with modern scientific facilities and equipment, such as electron, confocal, and fluorescent microscopes, tissue culture facilities, small animal housing facilities, ultra- and high-speed centrifuges, research-grade spectrophotometers, high-performance liquid chromatographs, dark and cold rooms, and an automated DNA sequencing system. The research faculty members enjoy fully functional research laboratories undergraduate and graduate students research.

Center for Prevention Research



*Dr. Jan Emerson
Acting Director
Center for Prevention Research*

The Center for Prevention Research at Tennessee State University was established by Dr. Baqar A. Husaini in 1976. The Center is funded primarily by external grants from federal, state and local agencies. A multi-disciplinary team of researchers at TSU and other universities work with the Center through various research projects and collaborative arrangements. Goals of the Center include community-based, as well as laboratory-based, research to address disparities in disease outcomes and to promote primary prevention including obesity reduction and cancer screenings. The Center continues to develop a long-standing and active relationship with the local community to address the health-related needs of African Americans, Hispanics, and other underserved populations. In addition, the Center provides mentoring, technical assistance, secondary databases, and other resources to TSU faculty researchers and trains TSU undergraduate and graduate students in conducting health-related research. Finally, the Center researchers disseminate research findings to the scientific community, decision-makers, community-based organizations, and the general public to inform policy and practice. Dr. Jan Emerson is the Associate Director of the Center, and is also serving as the Acting Director.

The Department of Chemistry



*Dr. Mohammad Karim,
Department Head, Chemistry*

Led by Dr. Mohammad Karim, the Department of Chemistry at Tennessee State University is one of four departments in the College of Agriculture, Human and Natural Sciences. We are housed in the Boswell Science Complex, a new 60,000 ft² building equipped with state-of-the-art teaching and research facilities, classrooms, chemical storage rooms, computer rooms, and tutorial center. Current enrollment in our ACS-approved program is about 150 undergraduate chemistry majors and 26 graduate students; these students are served by 13 full-time faculty members and 5 staff members.

We offer a BS in Chemistry with concentrations in Professional Chemistry, Biochemistry, Chemistry and Chemistry with Teacher Certification. All Chemistry majors are individually advised by faculty members, not only for course selection, but also to provide valuable mentoring in research, career choice, job placement and service to the community.

The departmental research instrumentation facilities have grown significantly over the past several years. As a result, chemistry students are provided with hands-on training using state-of-the-art instruments which make them highly qualified in the job market, as well as to pursue advanced degrees in Chemistry or professional fields, such as pharmacy or medicine.

Our faculty members are, in one word, outstanding. Both in classroom and research laboratories, our faculty provide consistent, solid research experiences to our students so that our graduates are more competitive and successful in their respective areas. The faculty and staff of the Department of Chemistry provide an environment where students at all levels can explore, discover, and learn chemistry through coursework and research.

The Department of Chemistry also offers MS degrees in Chemistry with concentrations in Chemistry and Biochemistry. Research areas include Medicinal Chemistry, Synthetic Chemistry, Drug Discovery, Cancer Research, Nanomaterials, Atmospheric Chemistry, Computational Chemistry, Analytical Chemistry, and Biochemistry. Many of our graduates have continued their studies in top tier chemistry programs and have successfully completed their doctoral degrees. In most cases, our MS graduates have completed the program with one or two articles published in refereed journals. Graduate students also present their research findings in regional and/or national ACS conferences – a truly outstanding achievement. A business-friendly relationship among faculty and students makes it possible to achieve outstanding results.

Finally, members of the Chemistry Club are doing an excellent job in chemistry club activities. As a result, the TSU Chemistry Club has received American Chemical Society awards several years in a row as recognition of the members' performances in stimulating science in the community.

If you have any questions about the new departments and centers added to the College of Agriculture, Human and Natural Sciences, please contact the office of Dr. Chandra Reddy at:

615-963-5438

or by email at

Agschool@tnstate.edu

Dr. Constantine Fenderson Retires

Dr. Constantine L. Fenderson retired from Tennessee State University on August 15, 2011. Dr. Fenderson's tenure at Tennessee State University was exceptional. He began his career as an Assistant Professor in the Department of Animal Science in 1975, and proceeded through the ranks to Professor and Department Head of Animal Sciences, and later Department Head of Agricultural and Environmental Sciences. Dr. Fenderson has also served the University as Interim Dean of the School of Agriculture and Consumer Sciences from 2003-2008, while serving as Department Head of Agricultural Sciences. Although teaching was Dr. Fenderson's major responsibility, he maintained a split appointment in research. The



fundamental focus of his research was in areas dealing with land utilization systems for maximum beef production; feeding and management systems for maximizing pounds of beef per acre on limited resource beef cattle operations; management systems for small beef cattle operations; breeding systems for small beef cattle operations; and nutrition and management systems for meat goat production. Dr. Fenderson was also the leader in several research projects dealing with strengthening the teaching program in animal science/pre-veterinary medicine and strengthening graduate training in agricultural sciences. He has served as Principal Investigator, Project Director, and Co-Principal Investigator on these projects.

Fenderson is a native of Trinityville, St. Thomas, Jamaica, West Indies. He received an Associate Degree in General Agriculture from the Jamaica School of Agriculture, Spanish Town, Jamaica in 1960, his B.S. degree in

Animal Science from Tuskegee Institute, Tuskegee, Alabama in 1969, the M.S. degree in Animal Husbandry-Ruminant Nutrition from Michigan State University in 1972 and the Ph.D. degree from Michigan State University in Animal Husbandry-Ruminant Nutrition in 1974. He was employed by Michigan State University as a Post Doctoral Fellow from 1974 to 1975. Fenderson became a Certified Professional Animal Scientist in 1994 and a Chartered

Diplomat of the American College of Animal Nutrition in 1995 by the American Registry of Professional Animal Scientists.

During his tenure as Head of the Departments of Animal Sciences and Agricultural Sciences, Dr. Fenderson was responsible for the construction of the Beef Cattle Facilities, the Poultry Complex, the silos, and the Greenhouse Complex. He was part of the leadership involved in the renovation of Lawson Hall and the Dairy Barn (Farrell-Westbrook Complex) and the construction of the Agricultural Information Technology Center. As a teacher, advisor, and mentor, Dr. Fenderson's efforts produced many graduates with successful careers in animal science, veterinary medicine, medical doctors, pharmacy, dentistry, university professors and leaders within USDA and other federal and state agencies.

Dr. Fenderson is planning to use his retirement years to spend more time with his wife, Mrs. Una Fenderson and the rest of his family, one adult daughter Pauline Whitby and one adult son John Fenderson. The Fendersons are the proud grandparents of Earl Jr., and Vernae Whitby and Ella Claire Fenderson.

College Of Agriculture, Human And Natural Sciences Scientists Score Big!



L-R: Drs. Tegegne, Godwin, Nahashon, Si, J. Wang and X. Wang

The U.S. Department of Agriculture, through the National Institute of Food and Agriculture's 1890 Capacity Building Grants Program, has awarded grants in the amount of \$1.9 million to faculty members in the College of Agriculture, Human and Natural Sciences. This is the second year in a row that faculty from the CAHNS at TSU received the maximum allowed funding from USDA under this grant category. The Dean of the College, Dr. Reddy, says that the new expectations of productivity from the faculty in the College and the internal review process put in place are primarily responsible for this success. The funding is spread among six projects:

- American Ginseng and Childhood Obesity: The Effects and Mechanisms in Mice and Pre-adipocytes -\$227,754; Principal Investigator: **Hongwei Si**
- Enhancing the Viability of Underserved Small Farms and Rural Communities Using Emerging Network Science-\$455,169; Principal Investigator: **Fisseha Tegegne**
- Establishing a Professional Science Master's Program to Develop Future Biotechnology Workforce with Business Skills for Sustainable Agriculture -\$227,801; Principal Investigator: **Samuel N. Nahashon**
- Identifying Food Safety Risk Factors and Educational Strategies for Consumers Purchasing Seafood and Meat Products Online -\$455,506; Principal Investigator: **Sandria Godwin**
- Improving Nitrogen and Water Use Efficiency to Reduce Greenhouse Gases Emission in Corn Croplands -\$299,974; Principal Investigator: **Junming Wang**
- Integrated Evaluation of Genetic Variations in Broiler Chickens-\$227,788; Principal Investigator: **Xiaofei Wang**

Recent Grants Awarded To The Department Of Biology

- Collagen IV Assembly and Trafficking - \$442,698; Principle Investigator: **Michael Ivy**
- Undergraduate Student Training in Academic Research at Tennessee State University - \$1,244,464; Principle Investigator: **Prem Kahlon**
- Assisting Bioinformatics Efforts at Minority Schools, Sub-Award to Tennessee State University - \$31,360; Principle Investigator: **Terrance Johnson**
- Targeted Infusion Grant: Development of a Undergraduate Bioinformatics Program for Enhancing Research and Education at Tennessee State University - \$297,899; Principle Investigators: **Ali S. Sekmen, Terrance Johnson, and Wei Chen**
- URM: Enhancing Minority Undergraduate Student Research Experiences in Ecology and Environmental Science - \$614,520; Principle Investigator: **Dafeng Hui**

Center For Prevention Research Receives \$4 million Grant

Dr. Baqar Husaini (Professor & Director Emeritus) of the Center for Prevention Research has been awarded a cancer prevention research grant by the National Cancer Institute of the National Institutes of Health. The grant is a partnership among Tennessee State University, Meharry Medical College and the Vanderbilt-Ingram Cancer Center to prevent and reduce cancer health disparity. The TSU portion of the grant totals nearly \$4 million over 5 years. Goals of the program include creating long-term collaborative relationships among researchers at cooperating institutions, training graduate students in cancer research, as well as improving cancer education and outreach to the Nashville community.

Other faculty and staff members funded by this grant include Dr. Margaret Whalen (co-PI), professor in the Department of Chemistry, Dr. Jan Emerson, Associate Director of the Center for Prevention Research, Dr. Elizabeth Williams, Dr. Owen Johnson of the Department of Public Health and Dr. Gular Boyraz of the Department of Psychology. This is a great effort to reduce and prevent cancer through research at three collaborating institutions. Additional information is available from Dr. Jan Emerson, jemerson@tnstate.edu 615-963-5409.





Center For Prevention Research Sponsors Nashville Children Eating Well (CHEW) For Health



The first annual Nashville Children Eating Well (CHEW) for Health conference was held on Thursday, November 10, 2011. Addressing the problems of adult and childhood obesity, the conference was attended by close to 100 public health workers, healthcare providers, community activists, students, and concerned citizens. Dr. Jan Emerson, TSU CHEW Co-PI, moderated the program. Dr. Chandra Reddy, Dean of the College of Agriculture, Human and Natural Sciences welcomed the attendees and Dr. Baqar Husaini, as CHEW Principal Investigator, enumerated the reasons for the concern about childhood and adult obesity by sharing the growing prevalence in the U.S. of obesity-related illnesses and resulting mortality. Drs. Hull and Levine, the Vanderbilt and Meharry CHEW Co-PIs, gave an overview of the CHEW project and reported on the activities that will be implemented in the Nashville area with participants in the Women, Infants, and Children (WIC) program. A research component will develop culturally-tailored educational materials that, after testing, will be available for use by the Tennessee Department of Health. Additionally, an extension component will work with WIC vendors and their consumers to encourage increased access and purchase of fruits and vegetables, while the education component will train medical

students, residents, practicing physicians and nutrition students in the prevention and management of obesity. While all activities for the project will be local, the results may have far-reaching effects.

Attendees learned about additional obesity concerns from presenters from various universities, including Vanderbilt, University of California – Davis, Colorado State University, University of Alabama and Tennessee State University. Speakers presented information on factors associated with poor health literacy; factors in the social environment that contribute to overconsumption of high caloric foods; what approaches help children establish healthy eating habits; how energy expenditure is related to weight gain; how to make introduction of novel foods fun; and an explanation of food deserts and how they contribute to the obesity problem.

The CHEW team will sponsor a community day to be held in April 2012 designed to attract the targeted community of WIC families and their children for a day of food preparation demonstrations, food tasting and nutrition-related games. For additional information about the CHEW program, contact Dr. Jan Emerson, jemerson@tnstate.edu, or 615-963-5409.



2011 Small Farm Expo

A Success

The College of Agriculture, Human and Natural Sciences recently recognized Hilda Braun, Ray Radford and the Walden Family Farm for their contributions to Tennessee agriculture at the 2011 Small Farm Expo and Small Farmer Recognition Program.

Hilda Braun operates a 100 acre cow-calf beef operation in Bledsoe County with her husband. The Brauns are able to manage their operations using current best practices, including rotational grazing, cross fencing, and a new state-of-the-art watering system.

Ray Radford's farming operation consists of approximately 425 acres with 300 acres in pasture and 125 acres in hay. His main farming enterprise is a cow/calf operation featuring the unique Corriente breed. To be sustainable, Ray decided to market his product directly to the consumer and carve a specific market niche. That niche includes leases for penning and roping, sale of seed and breeder stock, leasing of breeding and breaking bulls, and the sale of grain-fed and grass-fed cattle, locker beef, trophy skulls and horns, and exquisite tanned hides.

The Walden Family Farm began in 1986 when the Walden brothers, Robert and Raymond, their sister, Ramona, along with their spouses, purchased a 260 acre family farm on Rocky Fork Road in Smyrna, Tennessee. In 1999, Robert Walden's son, Randy, and his wife Heather planted a few rows of pumpkins just for fun. They ended up selling the surplus to inquiring motorists who saw them piled up against the barn. This was the beginning of the family pumpkin growing business. By fall season of 2000, the Walden Pumpkin Farm opened to the public. School tours were soon booked, and the accidental pumpkin farm was becoming a profitable business. Walden offers

many different activities, including hayrides, "harvest-your-own" pumpkins, farm animal petting area, and farm tours.

Sponsored by the College of Agriculture, Human and Natural Sciences, this year's Small Farm Expo and Small Farmer Recognition Program took place at the TSU Otis L. Floyd Nursery Research Center in McMinnville, Tenn. Approximately 200 people traveled to McMinnville to witness the presentation of awards and attend educational sessions on bee keeping, beneficial insects, weed control, marketing innovations and invasive insects. "This was a fantastic event", said Dr. Nick Gawel, Superintendent of the Nursery Research Center, "our attendees had very informative educational opportunities, and the award recipients are great examples of successful farming in Tennessee".

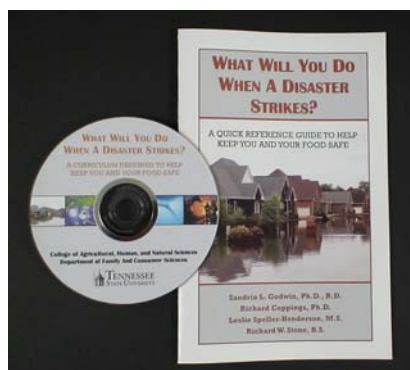
Additional information about small farms programming is available from Dr. Roy Bullock, rbullock@tnstate.edu (615-963-5449).



New Releases From The Department Of Family And Consumer Sciences

New Extension Curriculum

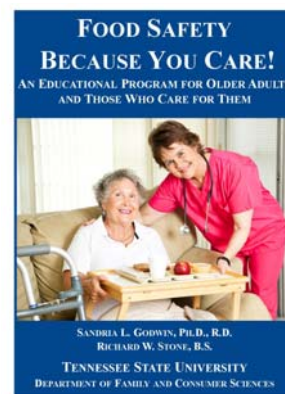
When a natural or man-made disaster, such as a tornado, flood, bioterrorism or fire strikes in the community, there is an increased risk of people getting a foodborne illness. For example, power outages make it hard to keep food cold and make it difficult to properly heat food. Flood waters may contaminate food in the home, or environmentally toxic substances may make the food harmful to eat. There may also be a major food recall. Safe food, drinkable water and electricity may not be available for days or weeks. An ample supply of food and water for the entire family set aside in case of an emergency is a top priority when a disaster strikes. Having a communication plan along with the emergency food kit, in addition to following safe food handling practices, are valuable strategies for helping survive an emergency or disaster. With this in mind, the Department of Family and Consumer Sciences along with Jackson State Community College, created the educational



curriculum “What Will You Do When A Disaster Strikes? - A Quick Reference Guide To Help Keep You And Your Food Safe”. Available at <http://www.tnstate.edu/extension/EducationalCurricula.aspx>, the curriculum is a series of 8 lessons designed to educate consumers on how to keep themselves and their food safe before, during, and after a disaster. Each lesson is designed to support an educational approach that is in-depth, interactive, and flexible to the needs of the educational setting. Keeping food safe as well as having an emergency food kit is often overlooked during these times. It is our hope that this program will provide essential information to members of the community, so they can survive a disaster with an ample food supply and be free from foodborne illness. If you would like more information on the curriculum please contact Dr. Sandria Godwin at 615-963-5619 or by email at sgodwin@tnstate.edu.

New Educational Program

“Food Safety Because You Care! An Educational Program For Older Adults And Those Who Care For Them” was prepared by the research staff in the Department of Family and Consumer Sciences in collaboration with RTI International. Information provided in this program is extremely important to health care providers because older adults are more susceptible to foodborne illness. The program is designed to provide a greater understanding of foodborne illness along with a knowledge of food safety practices to keep older adults safe. Many healthcare providers are unaware of the importance food safety plays in the health of their patients, making the training provided in this program essential. If you would like more information on the program please contact Dr. Sandria Godwin at 615-963-5619 or by email at sgodwin@tnstate.edu.



College Announces Roger Sauve As Superintendent Of Research Centers

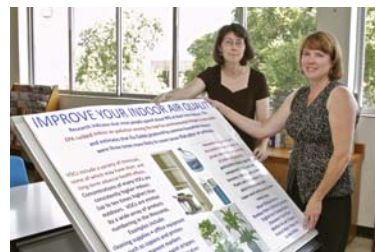
The College of Agriculture, Human and Natural Sciences at Tennessee State University has announced the appointment of Dr. Roger J. Sauve as the new Superintendent for the University's Experimental Research Centers located in Nashville and Ashland City. He assumed the position September 20, 2011.

As Superintendent of the research centers, Dr. Sauve will be responsible for providing leadership to the research and education operations of the centers. Working closely with the Dean of the College, along with the Extension and Research Associate Deans, he will work to support faculty and graduate student greenhouse and field research and demonstration projects.

Dr. Sauve attended the University of Florida where he received his Bachelor of Science degree in Zoology and Education, a Master of Science degree in Plant Pathology and Botany, and Ph.D. in Plant Pathology and Mycology. For additional information about the research stations contact Dr. Sauve at rsaue@tnstate.edu or 615-963-5828.

Sustainable Living Workshops Organized By The Department Of Family And Consumer Sciences

Family and Consumer Sciences professors Sue Ballard de Ruiz and Margaret Machara are helping families and individuals save money while helping the environment through Sustainable Living Community Workshops. These workshops are being conducted throughout Nashville at community centers and for organizations such as Habitat for Humanity, and are receiving attention from local and state governments, as well as local media. The professors were interviewed on NewsChannel5 and NewsChannel5+ Urban Outlook to share their knowledge of sustainable practices that address waste, water, air quality and energy. Although the project is funded through a USDA\NIFA Capacity Building Grant, it has received additional support materials for participants through Home Depot, the Nashville Mayor's Office of Environment and Sustainability and the State of Tennessee Department of Environment and Conservation. Interest in the workshops also generated a request for similar workshops to be designed and presented to participants in a \$789,031 HUD grant administered through the Tennessee State University Center for Service Learning and Civic Engagement.



Sustainable Living Workshop participants receive a reusable shopping bag with energy saving materials and environmentally friendly cleaners, as well as information that provides tips on where to look for services, what plants clean the air, environmentally friendly alternatives to common household cleaners, and simple steps to take in developing a more sustainable lifestyle. The second phase of the project is now underway with the development of an online delivery system that contains the information provided at the community workshops. While many websites provide information on sustainable living, this site will provide a concise, simple approach to everyday practices that can have a positive financial and environmental impact on individuals and communities.

More information about sustainable living is available from Sue Ballard de Ruiz aballard@tnstate.edu, 615-963-5623 or Dr. Margaret Machara mmachara@tnstate.edu, 615-963-5628.

Alley Cropping: Making Money With No Complaints

Just beyond the northern suburbs of Memphis near Millington, Tennessee, amid fields of cotton and soybeans, forested creeks and new housing developments, lies a small family farm owned by Alvin and Shirley Harris. Everything they do on their farm is organic-based, from their forages to their blueberries. Their current alley cropping system is also organic and consists of rows of eastern black walnut using organic farming principles in the alley ways that have produced watermelons, black-eyed peas, cream peas, purple hull peas, sweet corn and other short rotational crops. There are no chemicals used anywhere on the farm. As Alvin points out, “I have been doing this for thirty something years and it’s going to stay that way.”



The alley cropping system that Alvin set up is fairly new on the farm. “I basically started from scratch and a lot of what I do I learned overseas traveling around the world seeing how they did things,” explains Alvin about his farming operations. Alvin used some suggestions from David Brauer from the USDA Agriculture Research Service in the planting and development of eastern black walnut in his alley cropping project. He wanted the rows of walnut

far enough from each other so he could grow annual crops in between while the trees were growing. He admits he knew nothing about growing trees but went ahead anyway. He was instructed to grow the trees using 25 feet by 25 feet spacing but his thoughts were to space them 25 feet by 30 feet so that he could have more room in between the rows to grow his other crops.

What is the status of the new alley cropping system? According to Alvin, “I am making money in this field every year. Not from the trees yet, but from growing produce in between them. I still make money. Really I haven’t lost anything, I don’t think, in this field, and I think this is the fifth or

sixth year.”

Would he recommend this system to other farmers? He emphatically says, “Yes, I’ve made money so I’m not complaining.”

For additional information about agroforestry, contact Dr. Solomon Haile, shaile@tnstate.edu, 615-963- 5445. This article is based on an interview conducted by Dr. Frank Mrema (fmrema@tnstate.edu). Reprinted with permission from “Inside Agroforestry”.

Legislators Visit Nursery Research Center

Tennessee legislators spent time at the Nursery Research Center in September learning about TSU’s role in meeting the research and extension needs of the state’s nursery industry, and meeting with nursery producers to discuss creation of jobs. House Democratic Leader Craig Fitzhugh, Senate Democratic Leader Jim Kyle, Senate Democratic Caucus Chair Lowe Finney and Speaker Emeritus Jimmy Naifeh, joined Rep. Charles Curtiss and Sen. Eric Stewart and associated aides to attend a listening session with nursery producers and tour the NRC facility. In addition to voicing industry concerns, the producers lobbied strongly for continued funding of the NRC.



TSU Cooperative Extension

The CAHNS Ropes Course Program Reopened

In June 2011, the CAHNS Cooperative Extension Challenge Course reopened for the first time after the 2010 Nashville Flood. The Challenge Course is located at the Cheatham County Agricultural Research and Education Center and is part of the Cooperative Extension Leadership and Organizational Development Program. This unique program is led by Dr. Tyrone Miller and is one of only two known programs located at an 1890 institution.

One of the first groups to use the course after the reopening was TSU President Portia Shields' Academic Boot Camp. Over 110 participants visited the course twice during a four week period and participated in teambuilding activities and high ropes experiences. High ropes experiences consist of a climbing wall, an incline log and a zip line. Students also enjoyed horseback riding during their visit. The visit to the Challenge Course was part of the camp's curriculum, which was designed to enhance student retention and success. Research data is being collected annually from course participants to assess the impact of the program.

The CAHNS Cooperative Extension Challenge Course was built in 2008 to create opportunities for students, faculty and staff, extension agents, youth and other outside groups to engage in activities to encourage leadership development and personal growth. Using various vertical challenges, group development activities and teambuilding initiatives, the Challenge Course fosters physical, emotional, psychosocial and spiritual wellbeing. Staff at the Challenge Course promote a safe, non-competitive and non-coercive environment of positive group interaction, discussion, challenge, learning and fun. The Challenge Course can comfortably accommodate up to 20-25 participants and its staff attempts to keep the ratio of participants to facilitators between 6:1 and 10:1 to maximize the experience for all. Each program is developed by the Challenge Course Director, Dr. Tyrone Miller, to meet each group's unique needs and goals. The typical 3-4 hour program can be designed to build confidence, cooperation, teamwork, creativity, trust, decision-making, conflict resolution, communication, and problem-solving. If you would like more information please contact Dr. Tyrone Miller at 615-963-1843 or tmiller11@tnstate.edu.



Lunch And Learn Workshops



During spring and summer 2011, “Bring Your Lunch and Learn” workshops were facilitated by Leslie Speller-Henderson, Nutrition Specialist and Rita Fleming, Health Education Specialist.

A total of 70 campus and community members attended the six free workshops that focused on healthy eating choices to promote health and prevent disease as ways to address the epidemic that is affecting all segments of our society. The monthly workshops followed the Dietary Guidelines for Americans 2010 and Choose My Plate messages:

- Balancing Calories
- Foods to Increase
- Foods to Reduce
- Building Healthy Eating
- Making Healthy Choices



The messages focused on healthy choice activities, such as: drinking and eating fewer calories, making informed food choices, and being physically active to reach and keep a healthy weight, reduce risk of chronic disease, and promote overall health. The Dietary Guidelines for Americans 2010 indicate that oftentimes, poor diet and no physical activity are the most important factors contributing to the epidemic of obesity. Even when not overweight, poor diet and physical inactivity are associated with the major causes of diseases and death.

The interactive workshops provided important facilitated opportunities to the participants as a way of involving self awareness and responsibility to reduce health disparities through dietary and physical activity changes.

The 2010 Dietary Guidelines are jointly issued and updated every five years by the Department of Agriculture (USDA) and Health and Human Services (HHS). They provide authoritative advice for Americans age two and older about consuming fewer calories, making informed food choices and being physically active to attain and maintain a healthy weight, reduce risk of chronic disease and promote overall health.

For additional information about healthy eating choices contact Rita Fleming at rfleming2@tnstate.edu (615-963-5625) or Leslie Speller-Henderson at lsPELLER@tnstate.edu (615-963-4888).

CAHNS Service To Leadership Class Volunteers Beautify Metro Nashville Schools

TSU has redesigned the traditional freshmen orientation course into a course that focuses on leadership and service. Every student in the course is expected to complete 12 hours of community service while enrolled in the course. Dr. Tyrone Miller formed and led teams of biology, chemistry, and family and consumer science majors from his section that volunteered to beautify the grounds of Thurgood Marshall Middle School and Maplewood High School. The service occurred during two different city-wide weekend service events organized by the non-profit volunteer organization, Hands-On Nashville. Dr. Miller and his students planted trees, spread mulch and cleaned flower beds at each school while learning the importance of giving back to the local community.



Extension Assists With Garden Plans At Midway Elementary

One of Claiborne County's elementary schools will have a school garden thanks to the Tennessee Farm Bureau and Mr. Trevor Cline. The TSU/UT Extension Service and the faculty and staff at Midway Elementary School would like to thank Mr. Trevor Cline for bulldozing the area for the school garden! Also big thanks go to the Tennessee Farm Bureau and the Outdoor Classroom Mini-Grant that is helping to pay for the project. We are excited about the programs taught by Extension Agent Kelley Frady at Midway in the spring.



Extension Begins Virtual Coffee Shop

The Cooperative Extension Program in the College of Agriculture, Human and Natural Sciences began offering monthly public outreach educational webinars, *TSU Extension Virtual Coffee Shop*, on Wednesday, Oct. 12, 2011.

The webinars take place the second Wednesday of each month and consist of three, one-hour sessions addressing critical and useful topics from each of the TSU Extension educational programs. Each webinar event begins at 9:00 am (central time) and covers various topics in the area of agriculture and natural resources. A second webinar begins at 10:00 am and concentrates on topics in the area of family, community and nutrition education. The third webinar begins in the afternoon at 1:00 pm and discusses issues dealing with 4-H and youth development. Topics in each session will be different each month. For more information and a schedule of upcoming topics, go to http://www.tnstate.edu/extension/coffee_shop_webinar.aspx. Previous webinar sessions are archived at the same web address and are available for downloading.

Dr. Javiette Samuel Receives Grant To Implement 4-H National Mentoring Program



The Department of Justice's Office of Juvenile Justice and Delinquency Prevention (OJJDP) awarded a \$5 million grant to the National 4-H Council in support of the 4-H National Mentoring Program. The grant comes as a part of the OJJDP's national effort to

strengthen, expand and implement youth mentoring activities nationwide to improve the lives of millions of young Americans. Forty-seven land-grant universities from across the nation are participating in the mentoring efforts. Dr. Samuel received \$41,000 to implement 4-H Tech Wizards in Haywood County as a part of the program.

4-H Tech Wizards will engage underrepresented youth in a tiered mentoring program with science, technology, engineering, math education, and mentoring. The use of high tech tools serves as the incentive to bring the youth into the program and keeps their interest. Haywood County Agent, Walter Dirl will focus on limited resource youth at Haywood High School. During the school year, youth will

engage in an intensive series of afterschool experiential, hands-on learning activities with real world applications. In the summer, they will have the opportunity to participate in a summer capstone camp and service-learning projects. At the same time, parents of the students are offered the assistance and education they need to support their children in their educational achievement. Activities will encourage critical thinking, teamwork, and communication skills through a variety of STEM activities, including but not limited to, GIS/GPS, web development, media technologies and related areas. Additionally, family/parenting activities will be offered. Short-term goals are to increase math, science and technological competencies and community service and civic engagement opportunities. Long term outcomes include improving school retention and graduation and increased post-secondary education opportunities. Haywood County will implement, monitor, and assess program mentoring strategies to create positive outcomes for youth. Research data indicate that mentoring programs have reduced first-time drug use by almost 50% and first-time alcohol use by 33%. In addition, mentored youth display greater confidence in their schoolwork and improve their academic performance.

4-H Students Take 2nd In Dairy Cattle Judging

Recently, Claiborne County 4-H members traveled to Knoxville to judge dairy cattle at the Tennessee Valley Fair. The Junior High team consisting of Brittany Cook, Victoria Jordan, and Olivia Coffey took second in the competition. In the overall judging, Olivia took 3rd, Brittany 4th, and Victoria was 12th. Blaine Coffey competed in the Senior High contest and took 3rd place individual. The team was coached by Kelley Frady, TSU/UT Extension Agent. Congratulations to these 4-H members and thank you for all your hard work! Great Job!



4-H Delegation Attends Citizenship Washington Focus In Our Nation's Capital

Dr. Javiette Samuel received a grant to send a youth delegation from TSU to attend Citizenship Washington Focus, a summer educational conference held at the National 4-H Youth Conference Center in Washington, DC. The national conference provides 4-H youth with opportunities to explore, develop, and refine their community and civic engagement skills to be outstanding leaders in their communities. Through hands-on educational workshops and sightseeing tours in the “living classroom” of Washington, D.C., youth learn about the history of our nation, the leaders who have shaped it, and how they can apply the leadership and citizenship skills they learn during Citizenship Washington Focus when they return home. Youth from Rutherford County and Haywood County as well as one county agent attended the week-long event. Citizenship Washington Focus has been in existence for 50 years. This is the first time that TSU has ever sent a delegation to DC.



Top Left: Students meeting with Senator Lamar Alexander's Senior Aide, Curtis Swagger

Bottom Left: Ariel Chism, Sarah Belcher, Leah Chism and Emma Stout in front of the White House

Right: In front of the Capital Building before tour (From L to R: Diamond Robinson, Miranda Kendrick, Sarah Belcher, Ariel Chism, Emma Stout, Leah Chism, Alexandria Dirl)

2011 4-H National Youth Science Day Hosted By Cooperative Extension Program

National 4-H Week was October 3-7, 2011. As part of the week, 4-H National Youth Science Day was celebrated on October 5. This event is the premiere national rallying event for year-round 4-H Science programming, bringing together youth, volunteers and educators from the nation's 111 land-grant colleges and universities and the Cooperative Extension System to simultaneously complete the National Science Experiment. During the annual 4-H National Youth Science Day, young people across the nation became scientists for the day.

The TSU campus-based experiment, spearheaded by Dr. Javiette Samuel, Assistant Professor/4-H Specialist, was held October 5 from 9:00-11:00 a.m. In a special effort to promote girls in science, over 130 girls from Smithson-Craighead Academy Middle School were invited to campus to participate in National Youth Science Day. Faculty members and several graduate students in the College of Agriculture, Human and Natural Sciences served as facilitators for the experiment. In this year's experiment, *Wired for Wind*, youth discovered how to build and test their own versions of renewable energy technologies. The three-part

experiment challenged youth to design and build their own wind turbines, measure blade pitch variables and map a potential wind farm site in Tennessee. Youth navigated the discussions on energy consumption as they discovered ways we can reduce our dependence on traditional energy sources. TSU 4-H Agents in Cheatham, Giles, Haywood, and Rutherford Counties also implemented the experiment in their local communities.



TSU President, Dr. Portia Shields welcomes students to campus and encourages them to follow their dreams.

Our nation is falling behind other countries in the fields of science, technology, engineering

and math. Participation in 4-H National Youth Science Day and other year-round 4-H science programming offers youth and adults the opportunity to engage in scientific exploration and work together to build the next generation of our nation's scientists, engineers and mathematicians. This annual event seeks to spark an early youth interest in science and future science careers, and to reclaim the nation's position of leadership in scientific exploration.

More information about 4H and National Youth Science Day is available from Dr. Javiette Samuel, jsamuel1@tnstate.edu, 615-963-7885.



Student Achievements

Family And Consumer Sciences Student Receives The Lucy Dye Scholarship



Angela Harper, the recent recipient of the Lucy Dye Scholarship sponsored by the Nashville Area Association of Family and Consumer Sciences, is a senior in the Department of Family and Consumer Sciences with a concentration in Nutrition. Throughout Angela's college career, she has achieved great success with her studies, and has also been very active in the community, operating a free food pantry, coordinating community meals, participating in local farmers markets and educating consumers on proper hand washing and food safety. While in high school, Angela realized that she was interested in anatomy and physiology, but was not sure what direction she wanted to take this interest. After discovering dietetics,

she enrolled in Tennessee State University with the goal of becoming a Registered Dietitian. As a Registered Dietitian, Angela hopes to work with the community on making healthier food and life decisions.

Markeith Price Makes Himself Known On The International Stage By Winning 2 Bronze Metals In The 2011 Parapan American Games

Markeith Price is a Fashion Merchandising student in the Department of Family and Consumer Sciences as well as a member of TSU's Track Team. This past fall, Markeith made a trip to Guadalajara, Mexico to represent the United States in the 2011 Parapan American Games. This is a multisport event in which athletes with physical disabilities from North, Central and South America compete. Markeith had great success at the games and medaled in two of his three competing events. He placed 3rd in the Long Jump and 200 meter, and placed 5th in the 100 meter. Markeith was born with a vision impairment and at the age of 11 developed an interest in running after joining the Baltimore Track and Field Club. Markeith has been competing ever since joining the club and is a current record holder in the US Association of Blind Athletes. In the future, Markeith hopes to compete in both the 2012 and the 2016 Paralympic Games.



Family And Consumer Science Students Help Schools

For the second year, the TSU chapter of Kappa Omicron Nu collected materials for the PENCIL Foundation during their Semester Meeting. The meeting, organized by Dr. Veronica Oates, featured presentations by students on the childhood Obesity epidemic. The PENCIL Foundation is the premier organization linking community resources of volunteers and materials with Metro Nashville Public Schools. PENCIL administers eight educational programs that involve the community as volunteers and mentors, provides academic enrichment opportunities, prepares students for graduation and puts school supplies in the hands of children who need them. Kappa Omicron Nu is a national honor society for Family and Consumer Sciences and related areas; the TSU chapter is Kappa Beta Sigma.



Chemistry Students Receive Recognition

The American Chemical Society student chapter at Tennessee State University has been selected to receive an Honorable Mention Award for its activities conducted during the 2010-2011 academic year. This past reporting year, over 330 nominations were submitted to the Society Committee on Education. The Society presented 36 Outstanding, 86 Commendable, and 107 Honorable Mention awards. Lists of award winning chapters will be published in Chemical & Engineering News and in Chemistry, the student member magazine. The award winning chapters will also be honored at the 243rd ACS National Meeting in San Diego, CA on Sunday, March 25, 2012.

In its award letter, the ACS stated that Professor Joshua Moore, faculty advisor of the chapter, deserves special commendation, stating “Few faculty members are willing to make the great commitment of time and energy that a successful chapter requires. Professor Moore's efforts certainly represent the best in undergraduate science education and mentoring around the country. We extend our warmest congratulations to the students and Professor Moore for setting such a fine example for other chapters and being exemplary chemistry ambassadors!”

Children Eating Well Oratory Contest Winners

Children Eating Well (CHEW) co-sponsored a student speaking contest at Tennessee State University on September 28, 2011 in honor of Childhood Obesity Prevention Month declared by President Obama. Ten students gave oral presentations to discuss the childhood obesity epidemic. Presentations focused on the five pillars of the First Lady's Let's Move! initiative.

Judges from the Toastmasters International Club, a non-profit educational organization that teaches public speaking and leadership skills, selected the top presenters. The Department of Family and Consumer Sciences and the College of Agriculture, Human and Natural Sciences also sponsored the event.

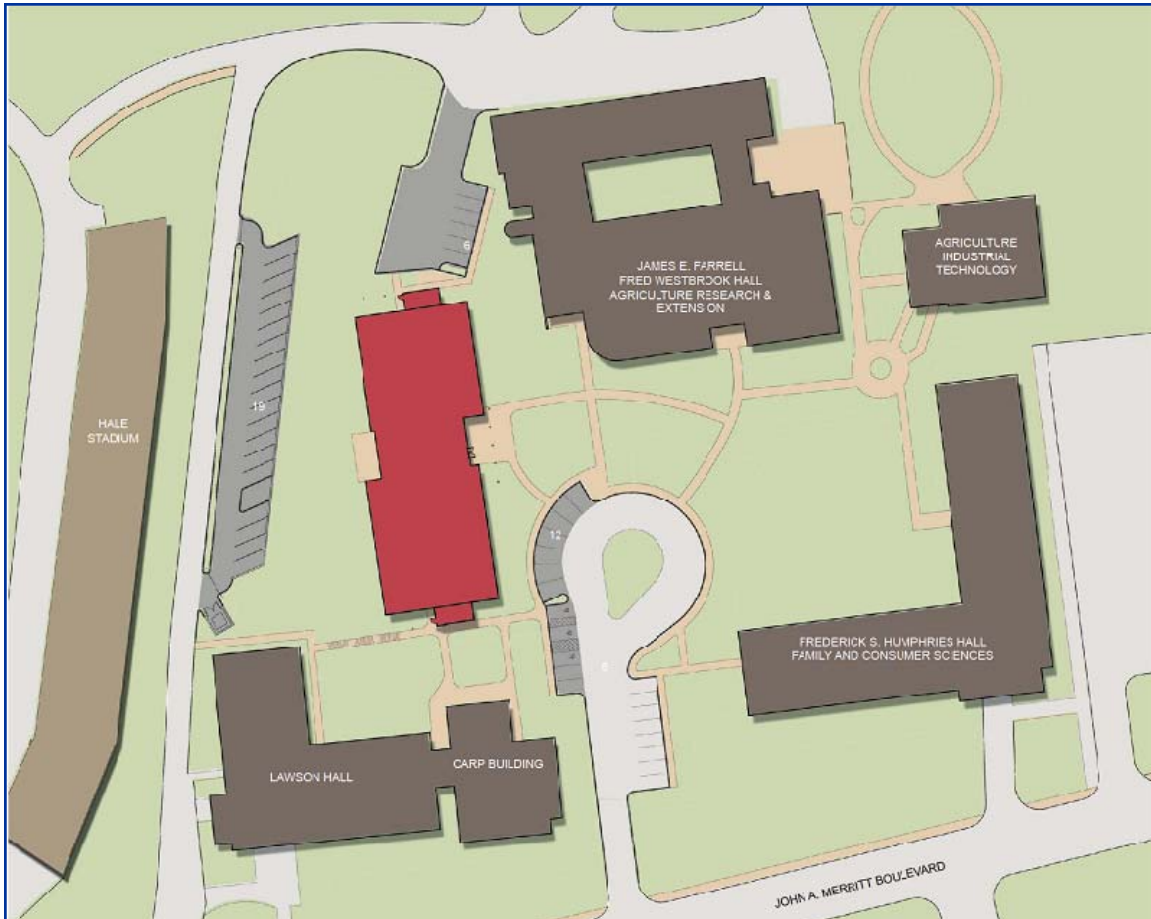
Contest Winners

1st Maya Foster, Masters of Public Health student and CHEW Graduate Assistant

2nd Courtney Gipson, Undergraduate Health Science student and CHEW Student Assistant

Bioscience Building

*Upcoming addition to the
College of Agriculture, Human and Natural Sciences*



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

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Tennessee State University
College of Agriculture,
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(615)963-7561
[http://www.tnstate.edu/
agriculture/](http://www.tnstate.edu/agriculture/)

Dr. Chandra Reddy, Dean

LINK Editors:

Dr. Nick Gawel
Richard W. Stone

**Thanks to all
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