



## COLLEGE OF AGRICULTURE, HUMAN AND NATURAL SCIENCES LINK



**SPRING 2015**

*Linking the College  
to its Alumni and Friends*



College of Agriculture, Human and Natural Sciences

3500 John A. Merritt Blvd.

Nashville, TN 37209



Dear Alumni and Friends:

I hope each of you enjoyed a wonderful holiday season and that 2015 becomes your best year yet.

This is something of a special edition of our CAHNS Link Newsletter as it commemorates the historic dedication of three new state-of-the-art buildings into our agricultural complex here on campus. If you were able to attend our September 17<sup>th</sup>, 2014 program, you already know how heartwarming it was to be a part of the simultaneous dedication of three new buildings. However, if you were unable to be with us on that historic day in September, we have a brief presentation here for your pleasure.

This ceremony was not only historic but joyous, as a great number of people from many different walks of life were brought together in celebration of past, present, and future successes here in the College of Agriculture, Human and Natural Sciences. From President Glover—who called it "a wonderful opportunity" for students to engage in "cutting-edge research in food safety and security" and to expand "their knowledge in their quest for excellence"—to Tennessee Board of Regents Chancellor John Morgan—who described it as reflective of "the commitment of this University to excellence and to producing students who are capable and ready for the workforce anywhere in the country and the world"—to sophomore Kourtney Daniels—who remarked that "the dedication of these three buildings shows the progressive efforts of Tennessee State University to better the students and communities impacted by our teaching, research, and extension activities"—to other distinguished guests including State Representatives Brenda Gilmore and Harold Love, Tennessee Department of Agriculture Commissioner Julius Johnson, USDA Mid South Assistant Area Director Archie Tucker and countless others, our September 17<sup>th</sup> ceremony featured an impressive list of speakers and attendees and was truly an event to remember! I cannot think of a more fitting way to commemorate the hard work and dedication that went into these projects or to inaugurate their use as centers of cutting-edge agricultural research and education (see pages 12-17).

My message at this function was a reflection on the transformational process we have undertaken since 2008, and provides a glimpse of where we are at this point.

*Good Morning! Welcome to all of you! Chancellor Morgan, President Glover, Commissioner Johnson, Representatives Brenda Gilmore and Harold Love Jr, USDA partners, State Dept. of Education partners, invited guests, colleagues, students, and friends, thank you for coming to celebrate this historical moment with us as we dedicate three new buildings at once! Today, we*

*dedicate the beautiful Agricultural Biotechnology Building in front of you and two additional buildings on the farm; the Agricultural and STEM Education and Training Center and the Agricultural Research Support Building. On behalf of our students, faculty, and staff, I want to thank the US Department of Agriculture for funding this 8 million dollar agricultural biotechnology building. Let us give a round of applause to USDA for their continued support to TSU!*

*Symbolically, this Dedication Ceremony and these Buildings memorialize the ongoing transformation in the College over the last five years. We have multiplied every useful metric during this time; be it student enrollment, research funding, or outreach. To give you a couple of examples, our Master's student enrollment in agricultural sciences has grown from 11 to 86; our Ph.D. student enrollment has grown from 3 to 26; and our county operations have expanded from 12 counties into 50. More importantly, at a fundamental level, we have integrated academics with research and extension; established faculty focus groups to provide intellectual leadership to our programs; and created new opportunities for our students to get involved in research and outreach. We have had an influx of faculty talent; 25 new Ph. Ds/faculty joined the program in the last three years. We have also increased our partnerships in the state and around the world, as we strongly believe that there is no expertise without collaboration. Several other significant policy changes—none of which would have been possible without the help of President Glover and Chancellor Morgan—are helping us recruit and retain outstanding faculty in our programs. Some of these details are included in a recent communique sent to friends and alumni that has been included in your program as an insert.*

*I do want to take a minute to impress upon you the need for continued investments in agriculture and the food sciences. The human population is expected to grow from 7 billion to **nine billion** by 2050, and climate change and its related environmental factors will continue to increase the burden on our food crops and animals, which have a tremendous impact on our overall health and wellbeing—and healthcare costs already make up **17% of US GDP**.*

*To deal with these fundamental issues, TSU has invested in these new facilities so that we can not only innovate and create new knowledge but also prepare the future work force, particularly among minority populations.*

*At a personal level, I am honored and humbled to be able to lead this historical transformation to agricultural programs at TSU and I want to thank President Glover for giving me this opportunity and for her continued support.*

Thank you to everyone who has had a part in our recent growth and success.

Sincerely,



Chandra Reddy, Ph.D.

Dean and Director of Research/Administrator of Extension



## ***Tyson Foods CEO Donnie Smith Wows TSU Students on Success, Corporate Culture and Leadership; Discusses Partnership Opportunities with Agriculture Officials***

Developing corporate partnerships and relationships with industry leaders have been at the core of Dr. Glenda Glover's vision since becoming president of Tennessee State University nearly two years ago.

This has included visits and talks with major corporations and businesses and invitations to their leaders to visit the TSU campus to see the kinds of preparations students are receiving to be ready for the job market.

TSU students received a good dose of exposure and a lecture on corporate culture and leadership when the President and Chief Executive Officer of Tyson Foods, Inc., a \$42 billion, Fortune 500 Arkansas-based company, visited and spent an entire day interacting with students, administrators, faculty and staff on the main campus.

Donnie Smith, whose visit also included the presentation of scholarships to three CAHNS students, in a partnership with the Tom Joyner Foundation, said his visit was intended to broaden existing relationship with TSU and explore areas in which student preparation in agriculture and science are more aligned with Tyson's needs.

“We want to continue to build the relationship deeper by developing a streamline of talents that is suited to our company’s needs,” said Smith, who added that about 12 TSU students have interned at Tyson in the last two years, while another was fully employed with the company.

“We are doing breakthrough research on our campus,” stated Dr. Lesia Crumpton-Young, chief research officer and associate vice President for Research and Sponsored Programs. “If you see the kinds of research we are involved in you will find that we are doing things that surely correlate with what Tyson’s needs are.”

A visit and tour of the University’s new Agricultural Biotechnology Research Building provided the Tyson visitors a closer look at some of the cutting-edge research the University officials spoke about.

“This visit is a great opportunity for us,” said Dr. Chandra Reddy, dean of the College of Agriculture, Human and Natural Sciences, following a meeting with the Tyson president. “We are trying to connect students and research to corporate needs because we want our research to be relevant to the market.”

“At Tyson we like to win, but for us winning is to make great food and helping those in need,” said Smith, adding that hunger relief is a major part of what Tyson does.

Prior to the presentations, the Tyson chief executive presented a check for \$7,500 to Bria Monk, a senior Agricultural Science major with a 3.65 GPA from Little Rock, Arkansas; Kourtney Daniels, a sophomore Food Biosciences and Technology major with a 4.0 GPA from Chicago; and David Connor, a junior Agricultural Science major with a 3.42 GPA from Birmingham, Alabama.

The money, with each student receiving \$2,500, is the result of a partnership between Tyson Foods and the Tom Joyner Foundation called the TScholars Project, to offer scholarships and internship opportunities to selected students majoring in Agriculture and Business at four historically black colleges and universities. The schools, TSU, Florida A&M University, North Carolina A&T State University and the University of Arkansas at Pine Bluff, were selected because of their proximity to Tyson company facilities.

According to the Interim Director of the Career Development Center at TSU, Tina Reed, each scholarship recipient will receive a summer 2015 internship at Tyson Foods.

Before leaving the TSU campus, the CEO also met with an array of students in different disciplines in Poag Auditorium, where he reiterated his views on corporate culture and leadership.



**Tyson Foods, Inc.**



# ***New Agriculture Academy Graduates Nine, Helps New Farmers and Returning Veterans Develop Successful Farming Skills and Techniques***

Entering the modern farming industry as a newcomer requires specialized training to be successful, and Tennessee State University has answered the call with the establishment of a New Farmer Academy.

The academy graduated its first nine candidates on November 16 after five months of extensive training.

Graduates included new owners and potential owners of small acreages looking for ways to best utilize their land for crops and livestock.

They covered topics such as agricultural leadership and regulations, financial planning, hydroponics and irrigation, organic production, farm equipment selection, Soil fertility and suitability, and value-added agribusiness, among others.

As a newcomer in the farming business, the academy was an eye opener for Alonzo Tate, a 2012 retired serviceman, who is looking for ways to improve his 200 acres in Oakland, Tennessee, where he raises goats, chickens, dairy cattle, and hopes to soon add hogs to the mix.

“In the 22 years I spent in the Navy, farming dramatically changed,” said Tate, “Not knowing that, I jumped in with both feet, buying goats and

fencing and equipment, not really having any idea of the amount of knowledge that’s out there today. I could have saved myself a lot of money had I taken this class before I started.”

For farmers like Tate and his fellow graduates, many of whom already have established operations, the New Farmer Academy also presents

opportunities to expand into new areas of production, gain access to knowledge about federal funds and programs, and develop new marketing strategies to make them more successful in the long run, organizers say.



“This year has been a great success,” said Finis Stribling III, TSU Area Extension specialist and coordinator of the New Farmer Academy program. “We had a fairly small group, and the small class size was ideal in addressing the needs of each small farmer in the program.”

Speaking at the graduation ceremony, Dr. Chandra Reddy, dean and director of Research and administrator of Extension in the College of Agriculture, Human and Natural Sciences, congratulated the graduates for their perseverance and eagerness to develop new skills and improve themselves.

*(cont. from page 6)*

“We are proud of you and will continue to track your progress as you try to convert the ideas, concepts, and practical experiences you learned here into successful businesses,” Reddy said.

Dr. Lesia Crumpton-Young, associate vice president for Research and Sponsored Programs, echoed Dean Reddy’s sentiments of a hopeful future. “I congratulate you, I applaud your success, and, most importantly, I look forward to seeing what you accomplish in the future,” she said.

“Part of our mission as a land-grant institution is to extend this kind of practical, research-driven information to the people who need it most,” Lighari said. “This group of upstart small farmers is an excellent example of the kinds of people who can partner with Tennessee State University, the CAHNS, and the Cooperative Extension Program to create a better, more prosperous tomorrow.”

Jai Templeton, deputy commissioner of the Tennessee Department of Agriculture, one of many officials at the ceremony, reminded the graduates about their part in the state’s \$67 billion farming and forestry industry, and thanked them for their commitment to the training program.

“I know the six month commitment you made here took you away from your farm but we’re looking to you to take this information back into your communities and be the leaders who help keep agriculture at the top of Tennessee’s economy,” the deputy commissioner said.

Plans are underway for the 2015 Farmer Academy, which is scheduled for June, organizers say.

**For more information visit**  
[www.tnstate.edu/agriculture](http://www.tnstate.edu/agriculture) or  
[www.tnstate.edu/extension](http://www.tnstate.edu/extension).

## **TSU Takes Mobile Biodiesel Education Demonstration “on the road” to Area High Schools**

The College of Agriculture, Human and Natural Sciences has taken its Mobile Biodiesel Education Demonstration (MBED) trailer on the road this fall, making stops at Cheatham County, Lebanon, and Mt. Juliet High Schools. The MBED is a self-contained unit that allows for demonstration of the process that converts oils from feedstocks such as canola seed into usable biodiesel.

Dr. Jason de Koff, assistant professor of Bioenergy Crop Production, and Project Director for the MBED, noted the importance of the mobility of this project.

“By taking this demonstration on the road, we’ve been able to speak to hundreds of area high school students about the work that we’re doing at TSU in the area of biofuels,” de Koff said. “This demonstration in particular is an excellent example of the multiple facets and opportunities that exist with agriculture.”

In addition to exposing students to scientific processes that may not be typically associated with agriculture, the MBED also offers an opportunity to engage students in hands-on learning opportunities that can, according to Dr. de Koff, “bridge the gap between the textbook and the real world.”

The MBED is funded through a grant from the U.S. Dept. of Agriculture. For more information about this or other biofuels-related activities within the CAHNS, contact Dr. de Koff at 615.963.4929, [jdekoff@tnstate.edu](mailto:jdekoff@tnstate.edu), or on Twitter @TSUBioenergy.



# TSU Signs Reverse Transfer/Dual Admission Agreement with Dyersburg State

Tennessee State University has made it easier for transfer students from Dyersburg State Community College to receive the associate degree they may lack prior to enrollment at TSU.

Under a Reverse Transfer agreement signed between the two institutions October 15, students who transfer to TSU without first completing their associate's degree, will now have the opportunity to use credits earned toward a bachelor's degree for completion of their two-year degree. This is the first time this type of agreement has been signed between TSU and a partnering community college.

According to Dr. Sharon Peters, director of the Community College Initiative Program at TSU, the agreement builds on partnerships already established with other community colleges around the state. It also helps support community college degree completion, a key component in the Drive to 55 campaign launched by the State of Tennessee that ensures at least 55 percent of Tennesseans have a certificate or degree beyond high school by 2025.

"This helps students attending the University complete their associate's degree while pursuing a baccalaureate degree," said Peters. "While we encourage our students to earn their four-year degree, we understand that students take multiple routes to completing their education. This way, they would have an associate's degree which could help them in the job market or career progression."

The agreement also creates a Dual Admission track that establishes a formal pathway for DSCC students to accumulate academic credits toward an Agricultural Science degree at TSU.

TSU's Agricultural Sciences major includes

concentrations in Agricultural and Extension Education, Food Biosciences and Technology, Agribusiness, Plant and Soil Science, Animal Science, and Biotechnology.

"Agriculture is a major industry in northwest Tennessee and this dual admission agreement is a keystone of the partnership," added

Peters. "We are excited to provide additional education opportunities while providing more choices for aligning associate degrees with bachelor's degrees through our College of Agriculture, Human and Natural Sciences."

The partnerships with community colleges, such as DSCC around the state, help students transfer seamlessly to the University to complete a four-year degree. Under the Community College Initiative, students have more options to move them along through their educational career.





## Refugee Group Visits TSU Research Farm



On August 1<sup>st</sup>, 2014 a group of over 25 refugees from Bhutan visited the main campus Agricultural Research and Extension Complex to explore the legume research of Dr. Matthew Blair. The refugees were Nepali-language speakers who had been expelled from Bhutan, an isolated kingdom in the Himalayan mountains. Many refugees have resettled in the Nashville area and have taken up gardening to ensure their food security. Many in the group have community gardens with the Nashville Food Project in what is called the Refugee Garden located in the Nolensville Road area. The group's experience growing yard long beans is what led to their interest in Dr. Blair's research, by way of Lauren Bailey, from the Center for Refugees and Immigrants of Tennessee.

They were met by Dr. Blair and Nepali graduate student, Devendra Bhandari. The refugees spoke little English, but could communicate through a translator and Devendra—as well as the common language of legumes, which is to say picking pods and looking at seed types. They identified different types of beans and cowpeas that would suit their gardening production and Dr. Blair offered to send them seeds of Crowder and Purple Hulled Southern Peas. Next year, refugees from Burma may also visit TSU. Activities like these are excellent reminders that the act of growing food can cross cultural barriers and that plants such as beans and peas can speak for themselves. For more information please contact Dr. Blair at [mblair@tnstate.edu](mailto:mblair@tnstate.edu).



# Tennessee State University Installs Cutting-Edge Technology in Pursuit of Teaching and Research

It sounds like something out of a science fiction movie. Researchers are using the latest technology to create artificial organs, prosthetics, jewelry and even automobiles...all with the help of a three-dimensional printer.

Now researchers at Tennessee State University are looking for ways to use this state-of-the-art technology to print everything from high-resolution models to detailed prototypes.

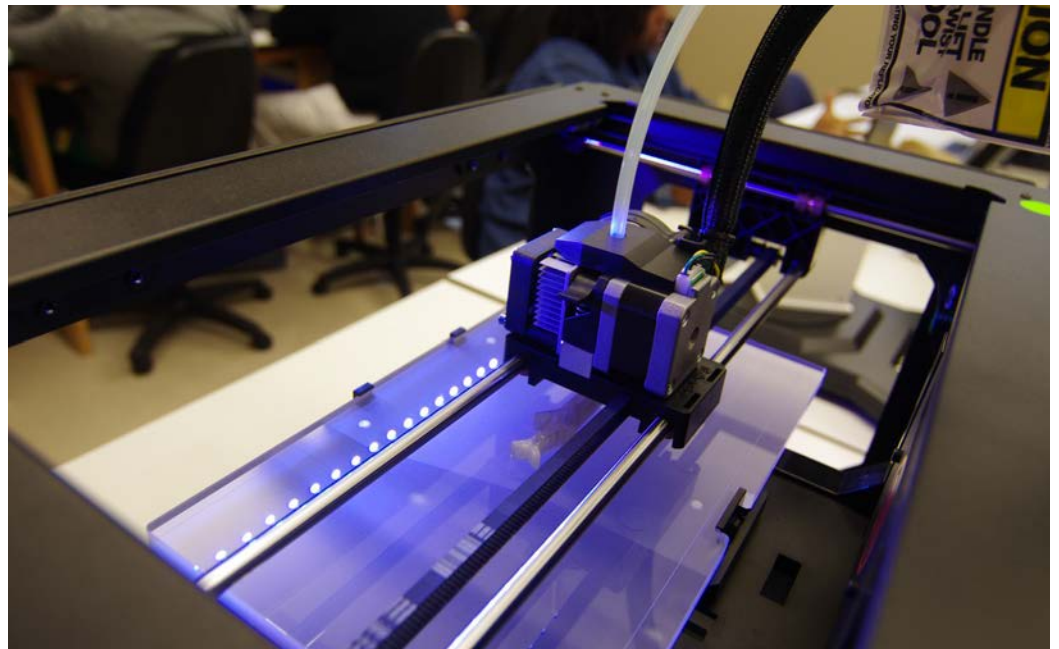
Dr. George Smith, assistant professor of Landscape Architecture and Extension Specialist in the College of Agriculture, Human and Natural Sciences, is currently developing new research projects and educational course content to take advantage of the *MakerBot Replicator 2* three-dimensional printer. The equipment was purchased with funds from the U.S. Department of Agriculture, as part of a three-year Capacity Building Grant to investigate the impacts of urbanization on rural communities and agriculture operations in Williamson County, Tennessee.

The 3-D printer, which uses a renewable, nontoxic bioplastic made from corn, includes sophisticated printing software that works in tandem with design tools to allow users to produce high-resolution prototypes and models up to 410 cubic inches. According to Smith, this technology will empower TSU students, and foster improved learning and engagement.

“3-D printing allows students to visually comprehend a concept or theory by creating a physical, three-dimensional translation,” Smith said. “Most importantly, this allows us to physically interact with these concepts, manipulating working parts and making accurate adjustments so we can continuously improve on the original.”

Not only is the goal to develop educational content based on 3-D printing applications, said Smith, but the technology will also be used to deliver workshops beginning January 2015 for stakeholders in Williamson County. The workshops will train participants on the impacts of urbanization, including increased flooding and degradation of soils, and water quality in the county.

“A few of the participants will have training in mapping, design, construction and terraforming for remediation purposes,” added Smith. “However, the 3D printers will facilitate this educational process regardless of past training in these areas.” Dr. Smith can be contacted at [gsmith6@tnstate.edu](mailto:gsmith6@tnstate.edu).



## Joint University Study Shows Unsafe Cooking Practices Put Consumers at Risk



According to a recent study, many consumers are putting themselves at risk for a foodborne illness when preparing poultry and eggs. The study, conducted between Tennessee State University and Kansas State University, examined how and with what degree of accuracy consumers determined doneness when preparing these items.

“There is only one way to determine if your poultry and eggs are cooked to a safe temperature, and that is to use a thermometer,” said Dr. Sandria Godwin, TSU principal researcher on the study. “It is recommended that poultry be cooked to a temperature of 165 F and eggs and foods containing eggs to a temperature of 160 F, with the thermometer inserted into the thickest part of the egg or poultry.”

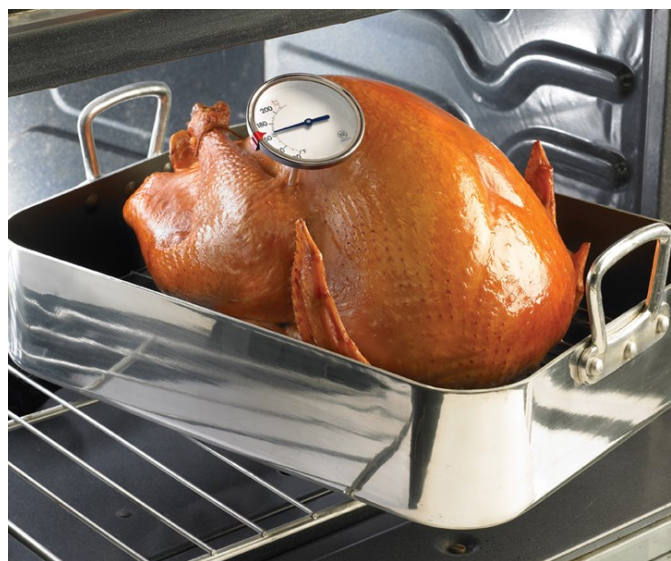
Godwin also cautioned against some of the widely embraced, less accurate methods of determining doneness, noting that the absence of pink areas in poultry is not necessarily an indication that it is safe to eat. Many of us may find ourselves cooking without the benefit of a thermometer nearby. In this scenario, Godwin recommends a ‘better safe than sorry’ approach.

“If you cannot use a thermometer it is recommended that the eggs are cooked until both the yolks and whites are firm,” she said. “I know this will not be welcomed by ‘sunny side up’ lovers, but it is the only way to ensure that your eggs are safe to eat.”

In addition to the potential issues with undercooked foods, researchers in the study also took note of another concerning trend: the failure by many participants to follow recommended hand-washing procedures which call for soap and water after handling any raw animal-based products. This was especially true during the preparation of eggs.

“When you don’t wash your hands after handling raw poultry or eggs you are putting yourself and others at risk for a foodborne illness,” Godwin added. “Items participants touched after not washing their hands were salt and pepper shakers, dish cloths, and cooking or serving utensils, which is particularly alarming since most of these items are used after the final product has been cooked, which allows for the spread of bacteria.”

This study is just one of many studies related to poultry and eggs being performed by researchers at Tennessee State University and other partner institutions. The research was funded in part through a grant from the Agriculture and Food Research Initiative Competitive Grants Program (Grant No2012-68003-19606) from the U.S. Department of Agriculture, National Institute of Food and Agriculture. Dr. Godwin can be reached at [sgodwin@tnstate.edu](mailto:sgodwin@tnstate.edu).





***TENNESSEE STATE UNIVERSITY  
DEDICATES CUTTING-EDGE  
RESEARCH AND EDUCATION  
FACILITIES TO ACCOMMODATE  
“PHENOMENAL” GROWTH IN  
AGRICULTURAL SCIENCES***

With graduate enrollment in agricultural sciences at Tennessee State University more than tripled in five years and an influx of new Ph.D. faculty topping more than 25 in just three years, University officials are celebrating the addition of new facilities to accommodate this “phenomenal” growth.

On September 17th, 2014, TSU President Glenda Glover, joined Dean Chandra Reddy, Chancellor John Morgan of the Tennessee Board of Regents, and other University officials, federal and state stakeholders and elected officials, at a formal ribbon-cutting ceremony to dedicate the official addition of three new buildings in the agricultural complex on campus.

The buildings, with a combined price tag of more than \$12 million, were funded by the U.S. Department of Agriculture through its National Institute of Food and Agriculture.

The centerpiece of the new facilities is the 25,000 square-foot Agricultural Biotechnology Building, the first new building constructed at the University in nearly eight years. It contains 12 state-of-the-art labs for cutting-edge research, including DNA synthesis and chromatography analysis. The building will also house and support primarily agricultural research, and provide working space for more than 20 new Ph.D.-level scientists, as well as administrative offices.

The other two facilities, called the Agricultural and STEM Education and Training Center, and the Agricultural Research Support Building, are located on the University farm.

“Tennessee State University is preparing students who are ready for the workforce,” said a very upbeat President Glover, as she thanked the USDA, the TBR, the Tennessee Department of Agriculture and other stakeholders for their support in making the buildings a reality.

“This is such a wonderful opportunity. With these facilities, our students will benefit tremendously by engaging in cutting-edge research in food safety and security, and by expanding their knowledge in their quest for excellence,” the President added.

Joining her in optimism, Dean Reddy said research funding in the College of Agriculture, Human and Natural Sciences has tripled to couple with climbing enrollment in both the undergraduate and graduate levels.



“This dedication and these buildings memorialize the ongoing transformation in the college over the last five years,” Reddy said. “We have multiplied every useful metric during this time, be it student enrollment, research funding or outreach.”

He said the college has integrated academics with research and outreach and extension, established faculty focus groups to provide intellectual leadership to their programs, and created new opportunities for students to get involved.

“The need for continued investment in agriculture and the food sciences is tremendous,” he said, reminding the gathering about the expected growth in human population and the risk of climate change and its effect on food crops, and the impact of food on “our” overall health and wellbeing.

“To address these fundamental problems, our research is focusing on developing crops and products for health, for climate change, for energy, and ultimately alleviating the problems facing the world today and in the future,” added Reddy.

TBR Chancellor Morgan, who described the dedication as very significant, also thanked the USDA, President Glover, Dr. Reddy and other stakeholders for their support.

“This is very significant because it reflects the commitment of this University to excellence and to producing students who are capable and ready for the workforce anywhere in the country and the world.”

While the dedication of the new facilities was the focus of the ceremony, a presentation by a CAHNS student received tremendous cheers from the audience, and caught the attention of several speakers and stakeholders with job offers for the Agricultural Sciences major from Chicago.

Kourtney Daniels, a sophomore with a 4.0 GPA, serving as a TSU Student Ambassador, had only to give the welcome remarks, but her “very eloquent,” three-minute presentation drew praises even she did not expect.

“I was just being myself; I did not expect to have such an impact,” said Daniels.

Others also participating in today’s dedication and ribbon-cutting ceremony were: Vice President for Academic Affairs, Dr. Mark Hardy; State Representative Brenda Gilmore, a TSU alum, who has championed many causes on the state and national levels for her alma mater; and Tennessee Agriculture Commissioner, Julius Johnson.

State Representative Harold Love Jr.; Archie Tucker, assistant director of the Mid South Area for the USDA’s Agricultural Research Services; Steve Gass of the Tennessee Department of Education; Dr. Roger Sauve, superintendent of the Agricultural Research and Education Center at TSU; and Ron Brooks, associate vice president for Facilities Management, also took part in the dedication.



*Ms. Kourtney Daniels (CAHNS Ambassador) welcomes visitors, faculty, staff, and students to the Building Dedication Ceremony*

# New Additions to the Agricultural Complex



*Agricultural  
Biotechnology  
Building*



*Agricultural  
& STEM  
Education  
and Training  
Center*



*Agricultural  
Research  
Support  
Building*

# Agricultural Biotechnology Building: Then & Now

*The CAHNS broke ground on the Agricultural Biotechnology Building during a formal ceremony held on Wednesday, June 6th, 2012. This ceremony pairs with the official dedication and grand opening held on Wednesday, September 17th, 2014 to bookend years of hard work, planning, dedication, and progress.*

## **Groundbreaking Ceremony — Wednesday, June 6th, 2012**



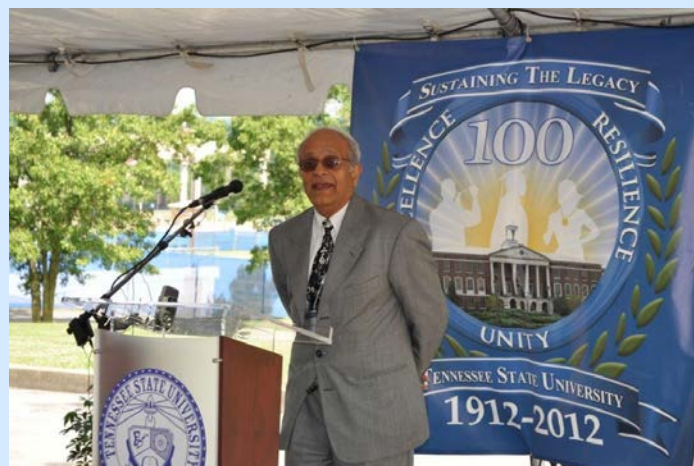
*Bearing shovels for the groundbreaking were (from L to R): Tennessee Commissioner of Agriculture Julius Johnson; Tennessee State Senator Thelma Harper; then Interim President of TSU Portia Shields; Tennessee Board of Regents Chancellor John Morgan; National Institute of Food and Agriculture Director Sonny Ramaswamy; CAHNS Dean Chandra Reddy; and TSU Associate Vice President for Facilities Management Ron Brooks.*



***Above:** Dean Reddy discusses the future with then Interim President Shields.*

***Above Right:** Dean Reddy speaks to an excited crowd; the groundbreaking ceremony was held as part of TSU's Centennial Celebration.*

***Right:** USDA NIFA Director Ramaswamy expresses his confidence that the new building will eventually lead to exciting breakthroughs in food and agricultural research.*





## *Dedication Ceremony — Wednesday, September 17th, 2014*

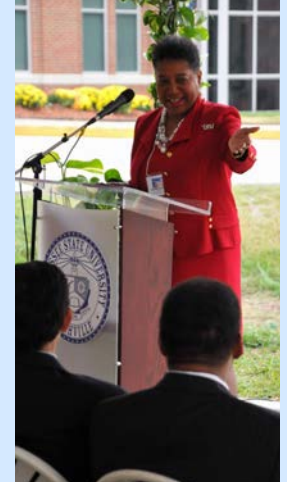


*Above: CAHNS Ambassadors, pictured with their Advisor Dr. John Hall, served as the welcoming committee.*

*At left: Ribbon-cutting participants included (from L to R): Dean Chandra Reddy, USDA Mid South Assistant Area Director Archie Tucker, TSU President Glenda Glover, TBR Chancellor John Morgan, and State Representatives Harold Love, Jr. and Brenda Gilmore*

*Below: FFA members from local high schools were invited to participate in the celebration.*

*At right: Special guests including (from L to R) President Glover, Chancellor Morgan, and Representative Gilmore gave remarks.*



*At far left: a large and diverse crowd joined together in the celebration.*

*At immediate left: the event received notable media attention from several outlets including WPLN, whose Nina Cardona is pictured here interviewing Dean Reddy.*

## Children Eating Well (CHEW) for Health Conference 2014

The Center for Prevention Research hosted the fourth annual Children Eating Well (CHEW) for Health conference held on Friday, October 17, 2014. Approximately 30 students and 100 community members and faculty/researchers attended the conference. Dr. Jan Emerson, the TSU CHEW Co-PI, opened the program and encouraged attendees to use the pedometers provided to each person and challenged them to take as many steps as possible during breaks and lunch. Drs. Lesia Crumpton-Young, Chandra Reddy and Baqar Husaini welcomed the attendees on behalf of Tennessee State University's Division of Research and Sponsored Programs, the College of Agriculture, Human, and Natural Sciences, and the CHEW Project, respectively. Dr. Husaini, CHEW Principal Investigator, reported on pre-school children's obesity trends according to the Centers for Disease Control.

An overview of the CHEW project was followed by reports on the progress and findings of each CHEW component. Dr. Courtney Kihlberg reported the CHEW Education component team has logged more than 5,100 trainee hours instructing students and medical professionals in childhood obesity prevention. The Education component has also collaborated with the Tennessee Department of Health in developing and disseminating a Nutrition and Physical Activity Toolkit designed to help educators, healthcare providers, hospital administrators, community outreach workers, and researchers find needed resources to encourage healthy eating and active living. The link to the Toolkit can be found on [www.NashvilleCHEW.org](http://www.NashvilleCHEW.org).

Dr. Chiquita Briley, the CHEW Extension component leader, reported the Extension team has recruited 19 WIC-approved small to medium sized grocery stores and has developed a technical manual to help them expand fresh produce sales. Two healthy food tastings have held at each of the 19 stores for past two years with an average of 25 shoppers per tasting served with positive feedback. The CHEW Research has developed a smartphone application with two components: a shopping tool to assist WIC mothers with maximizing WIC vouchers; and nutrition education focused on healthy snacks and beverages. This intervention app (English and Spanish) is currently being tested.

Following CHEW updates, presentations focused on interactions of the built environment and Latino preschool physical activity levels; evaluation of how to accelerate progress in obesity prevention; preliminary results in the Ninos Sanos, Familia Sana intervention; and successes and challenges in engaging parents to influence youth physical activity and healthy eating behavior.

Impact of the conference was measured by pre and post conference surveys. Results of these surveys indicated a statistically significant increase in participant knowledge. Positive feedback was also received from attendees. A summary of the conference is posted on the Tennessee Obesity Task Force website, and conference presentations and photos are on the NashvilleCHEW.org website.



# TSU Holds Educational Symposium in Support of Family Farming

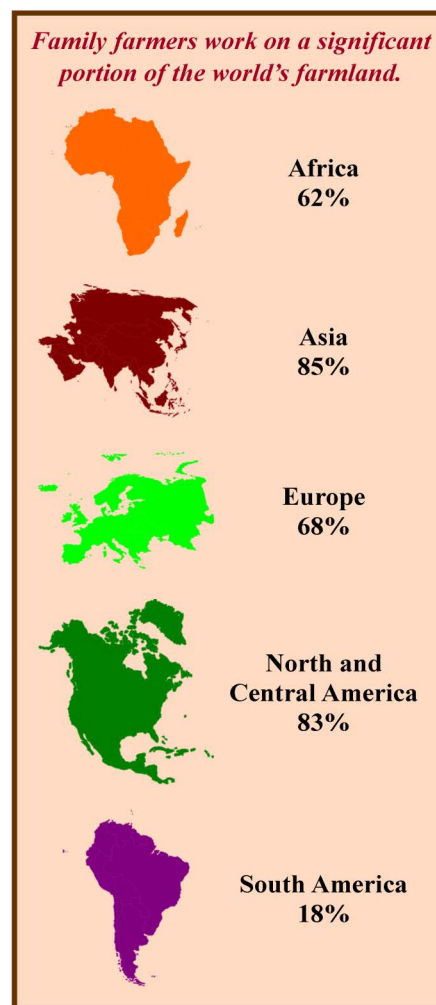


On November 7, 2014 TSU held the 2014 International Year of Family Farming (IYFF) Symposium as a means to raise awareness on eradicating hunger, poverty and food insecurity, improving livelihoods, managing natural resources, protecting the environment, and achieving sustainable development, in particular in rural areas. The event was sponsored by the Community Nutrition Class in the Department of Family and Consumer Sciences, in conjunction with The Cooperative Extension Program.

The goal of The Food and Agriculture Organization of the United Nations and the 2014 IYFF is to reposition family farming at the center of agricultural, environmental and social policies in the national agendas by identifying gaps and opportunities to promote a shift towards a more equal and balanced development. The 2014 IYFF will promote broad discussion and cooperation at the national, regional and global levels to increase awareness and understanding of the challenges faced by smallholders and help identify efficient ways to support family farmers.

Mr. Finis Stribling, TSU Extension, made a video presentation on the USDA's Strike Force Initiative and spoke about Small Farms: A Time to Act. In addition to Stribling, Dr. Dilip Nandwani presented A Pictorial View of Family Farming Around the World; Prof. Sammy Comer spoke on The Role of Women in Farming and Dr. Latif Lighari closed with a discussion on The Future of International Agriculture. Products from the newly certified organic farm located at Tennessee State University were also featured at the symposium.

Coordinator of the event, Dr. Sandria Godwin said, "The event gives attendees an opportunity to realize the direct impact farming has on not just the global community, but the local community as well."



# NashvilleCHEW.org Website

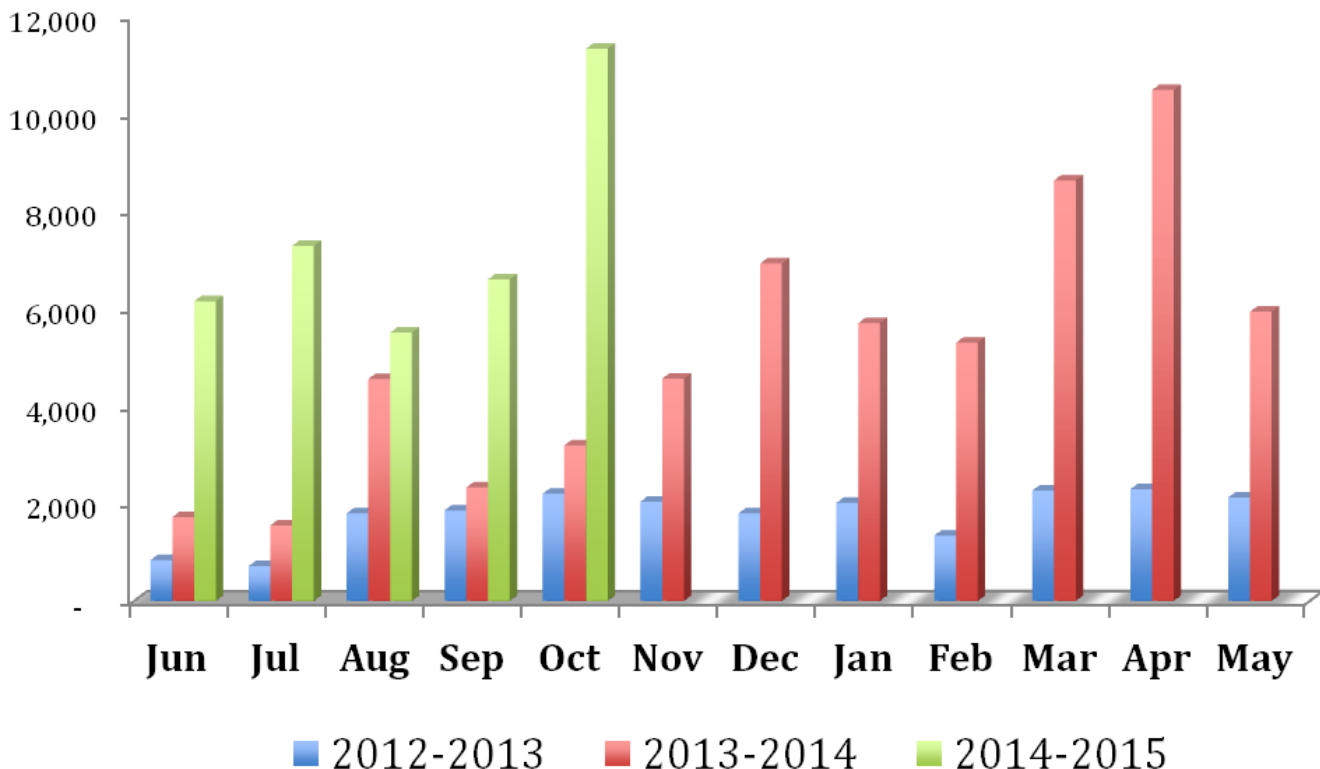


The [www.NashvilleCHEW.org](http://www.NashvilleCHEW.org) website has been online since June 2012. It is part of the USDA/AFRI/NIFA funded grant “Nashville Children Eating Well (CHEW) for Health” outreach efforts to the community. The website contains overall progress of the CHEW project team as well as progress on the individual components (i.e., Education, Extension and Research). A popular portion of the site are the recipes for healthy eating and snacking. These recipes are updated weekly and are posted in English and Spanish.

CHEW activities involving community outreach are posted as they occur. For example, the website contains conference summaries, abstracts, photos and power

point presentations for the four annual CHEW conferences (2011-2014). Outreach activities by the CHEW extension team are posted, such as photos and summaries of community day events, as well as a calendar of locations (i.e., WIC-approved participating grocers) where healthy food samplings are being conducted. The number of visits to the website has grown tremendously since being launched.

## Average Visits Per Month



## Faculty and Students From TSU Present Research Papers in SERMACS Meeting



Six faculty members and thirteen students from the Department of Chemistry presented new research papers in the 66th Southeastern Regional Meeting of the American Chemical Society (SERMACS) which was held on October 16-19, 2014 at the Sheraton Music City hotel, Nashville, Tennessee. The four day event features several oral presentation sessions and poster sessions. This annual meeting was an excellent opportunity for faculty and students to present their research and participate in research talks from professors and students from other institutions in the region.

As co-chair of the program, TSU faculty member Dr. Sujata Guha was actively involved in organizing the meeting in Nashville. Another TSU faculty member, Dr. Jerzy Mierzwa was the session chair of the analytical chemistry presentation. Other faculty who presented were Dr. Beni, Dr. Guha, Dr. Siddiquee, Dr. Vercruysee, Dr. Zheng, and Dr. Mierzwa. Students (and their advisors) who presented at the meeting were P. A. Forero Bello (Dr. Vercruysee), E. S. Burkett (Dr. Siddiquee), A. I. Hasbun (Dr. Phambu), R. Hoq (Dr. Karim), S. Wades (Dr. Guha), S. Alhamed (Dr. Beni), J. Alnakhli (Dr. Boadi), S. M Anisuzzaman (Dr. Whalen), S. Brown (Dr. Whalen), S. T. Lawrence (Dr. Whalen), H. M. Almughamsi (Dr. Whalen), W. Shaban (Dr. Al-Masum), and L. Quinones (Dr. Al-Masum).

### Dr. Abbas Receives Recognition

Dr. Dalia Abbas, Assistant Professor of Forestry was recently recognized for her outstanding leadership as Regional Board Member for the Forest Products Society representing the East Central Region 2011 - 2014. The recognition was presented at the society's International Convention in Quebec, Canada.



## Tennessee State University Researcher Receives National Excellence Award for Multistate Water Conservation Project



Dr. Dilip Nandwani, associate professor of organic agriculture, received the individual Award of Excellence from the Experiment Station Committee on Organization and Policy for his work on water conservation on November 3 during the

Association of Public and Land-Grant Universities annual meeting in Orlando, Fla.

Dr. Nandwani also accepted the 2014 Experiment Station Section Excellence in Multistate Research Award on behalf of the 20 land-grant university research team involved in the study.

Nandwani served as the committee chair for the collaborative team studying how farmers can best use microirrigation systems to sustainably irrigate their land, especially during droughts and water shortages. The five-year project included agricultural engineers, plant and soil scientists, and economists conducting a variety of studies and outreach efforts across the country.

The multistate team, which worked on what is officially known as the W-2128 Microirrigation for Sustainable Water Use Project, was supported in part through USDA National Institute of Food and Agriculture (NIFA) by the Multistate Research Fund, established in 1998 by the Agricultural Research, Extension, and Education Reform Act (an amendment to the Hatch Act of 1888) to encourage and enhance multistate, multidisciplinary agricultural research on critical issues. Additional funds were provided by contracts and grants to participating scientists.

“It is a great honor to be recognized at the APLU’s Annual Meeting,” Nandwani said. “This award validates our hard work over the last five years.”

Nandwani began work on the project while a member of the faculty at the University of the Virgin Islands. During the course of the five-year project, the multistate team’s research led to new microirrigation equipment and tools that are easier to install, more durable and more precise. The advances have encouraged adoption of microirrigation systems, which has led to significant economic and environmental impacts.

Highlights of the project included the University of Idaho demonstrating better crop yields with microirrigation than with center-pivot irrigation, while New Mexico State University tested and compared several models of drip tubing and emitters that could be used for inexpensive, low-pressure microirrigation suitable for small farms.

Iowa State University showed that fewer sensors, if placed correctly, could provide cost-effective, detailed maps of soil moisture content, while Oregon State University calibrated soil-water sensors to improve the precision of irrigation scheduling.

“My goal is to ensure the science we invest in leads to solutions to today’s most pressing challenges,” said Sonny Ramaswamy, director of USDA-NIFA. “One of those challenges is finding ways to feed the growing population while minimally impacting the environment. A safe, reliable supply of water is inextricably linked to food security. The five-fold increase in irrigated acres that took place during the 20th century cannot be repeated in the 21st century — there isn’t the space. Instead, we must increase efficiency of the irrigated farmland we have, and that’s what this project is doing.”

*(cont. from page 22)*

In addition to Tennessee State University, the other participating land-grant institutions included: Auburn University; University of Arizona; University of California, Davis; University of California, Division of Agriculture and Natural Resources; Colorado State University; University of Florida; University of Hawaii; University of Idaho; Kansas State University; Mississippi State University; University of Nebraska, New Mexico State University; Cornell University; Oregon State University; University of Puerto Rico; Texas A&M AgriLife Research; University of the Virgin Islands; Washington State University; and University of Wyoming. The universities also collaborated with the USDA's Natural Resources Conservation Service and Agricultural Research Service.

## ***TSU Faculty in the Community***



***Dr. Jason Oliver shares his knowledge of insects at the Franklin County Library Children's Education Day***



***Dr. Mathew Blair (not pictured) shared some different varieties of Cowpeas at the Bradley Country International Cowpea Festival***



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