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**Leodrey Williams**

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# SU Ag Center Researcher Offers Training in Armenia

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**Dr. Fatemeh Malekian**, associate professor, nutrition, conducted retail Hazard Analysis & Critical Control Points (HACCP) training in Yerevan, the capital and largest city of Armenia, from September 5-9.

The classes started with the introduction of participants and ice breaking exercises followed by an introduction of the training. Participants were divided into six teams of 3-4 members each. The name of each team was based on the HACCP principals. For example one team was named Hazard Analysis, another, Critical Control Point, etc.

Some of the participants did not have any background in food safety at all. Therefore, the “servsafe” and sanitation slides were used to introduce and ensure that everybody had

some basic knowledge of food safety before starting the HACCP training.

There were discussions, questions and answers on the different topics covered, which made the training very applicable to the participants. On day three of training, participants were required to bring menu items that they served in their facilities. The menus were grouped according to the retail HACCP procedure, and a plan was developed according to each team’s needs.

After five days of brainstorming and hard work, Malekian completed six retail HACCP plans (one per team). A speaker from each team presented their plan on the last day of training. Each individual received a certificate of completion. A participant representative expressed gratitude to USDA, CARD, LSU and Southern University Ag Center for providing the training. The speaker specifically said that she has attended a lot of training on food safety but the Retail HACCP was the best

and most useful for all of them.

On September 12, Malekian visited the United States Embassy’s eating facilities and met with Ms. Jill Barnes, the health specialist at the embassy. After going over the procedures for calibration of thermometer, they visited the cafeteria and inspected the dining, preparing, cooking, storing, and washing areas. She also discussed the project and the importance of continuing the trainings.

Dr. Malekian met with the Ambassador of United States to Armenia, Mr. Bruce Donahue, on September 13. The Ambassador was very pleased with the food safety project. “Food safety is a huge issue in Armenia, and I hope for the continuation of the project,” Donahue said.

*Continued on page 2*

## Armenia Training Contd.

She conducted food safety training for the kitchen staff at the embassy.

Malekian also visited Cactus, Viva line, Bee line and Eight Miracles and a few other restaurants and gave information, resources and advise on how to incorporate food safety practices into their daily plans and helped them set up retail HACCP.

HACCP is a management system in which food safety is addressed through the analysis and control of biological, chemical, and physical hazards from raw material production, procurement and handling, to manufacturing, distribution and consumption of the finished product. Details of the system is available online at: <http://www.fda.gov/food/foodsafety/hazardanalysiscriticalcontrolpointshaccp/default.htm>



Malekian, seated center, with class

## SU Ag Center Receives Shares from Corporation

This summer, the Southern University Agricultural Research and Extension Center conducted a performance test to evaluate equipment for Drinkable Air Technologies from June to August. The major goal of the company is to improve the environment using new technologies at affordable prices.

On October 18, the company donated ten thousand (10,000) fully paid and non-assessable shares of the Drinkable Air, Inc. to the Southern University Agricultural Research and Extension Center in return for participating in evaluating their equipment.

The objective of the study is to perform equipment performance test on the machine with respect to quantity and quality of water produced and electric usage in terms of kilowatt hours (KWH) consumed.



**Left-Right: Joe Mule, A.W. Szur, Drinkable Air Inc; Dr. Leodrey Williams, Chancellor, Dr. Kirkland E. Mellad, Vice Chancellor for Research, SU Ag Center; Dr. Bhattachary Pradeep, Drinkable Air Inc.; and Dr. Yemane Ghebreyessus, SU Ag Center**

The equipment was placed on level concrete blocks and was connected to 220 volts electrical box and meter to measure the electric usage (KWH) for water production.

Volume of water produced and KWH consumed were measured at different intervals (5 min, one hour, 12 hours and 24 hours). Daily hourly temperature and relative humidity were obtained from the Southern University weather station located approximately 300 ft away from the equipment. Water was collected in a graduated cylinder and 5-gallon containers. For water quality analysis, filtered and unfiltered water was collected and is being analyzed in a laboratory.

Water production varied from 1.98 to 4.45 gal/hr and the average electric usage per hour was 6 KWH. Clouds and rain significantly influenced the temperature, humidity and water production.

*Continued on page 3*

## Shares from corporation Contd.

The advantage of this study is an opportunity to conduct further research that could integrate the unit with solar panels or wind turbine to harvest water for drinking as well as for watering gardens.

This way of atmospheric water harvesting has great potential for wide agricultural use. For example, using solar panels in combina-

tion with the machine can provide water to grow plants with no need for rainfall.

Details of the study are available at <http://www.drinkable-air.com/index.htm>

Yemane Ghebreyessus, professor, urban forestry; Roosevelt Payne, research associate; and Mila Berhane, senior research associate of the SU Ag Center conducted the equipment evaluation.

## SU Ag Center Holds i-Tree Model Workshop

The i-Tree Model Workshop-Quantifying Urban Forest Ecosystem Services and Climate Change Mitigation Potential was held at SU Ag Center, Oct. 5-6. The training was a collaboration between the SU Urban Forestry Program and Mr. Eric Kuehler, Technology Transfer Specialist at the USDA Forest Service Urban Forestry South.

Forests both in urban and rural areas can help mitigate climate change by sequestering atmospheric carbon dioxide and by reducing energy use in buildings, and consequently reducing carbon dioxide emissions from fossil-fuel based power plants. To better understand the forest resource and its numerous values, the workshop provided trainings on how to use the i-Tree models to quantify urban forest ecosystem services such as CO<sub>2</sub> sequestration, carbon storage, building energy saving,

and pollution removal. The workshop trained participants on how to use USGS-NASA Landsat satellite data to assess the community's land cover, including tree canopy, and the ecosystem services, such as climate change mitigation, that is provided by the urban forests. The two day workshop took participants step-by-step through the use of four i-Tree models, i-Tree Canopy, i-Tree Vue, i-Tree Eco, and i-Tree Streets. In addition to computer modeling, field training sessions on data collection for i-Tree model application were also provided.

According to Dr. Zhu H. Ning, the workshop chair and professor of urban forestry, she is leading a group to conduct a research project using i-Tree model and the urban forests at Southern University, Scotlandville, and Baker as the research samples.



**Hands-on demonstration session outside with participants**



## SU Ag Center Hosts Small Farmer Agricultural Leadership Institute Training

Ashford Williams Hall, Southern University Ag Center headquarters was the site for Session 1 of Class IV of the Small Farmer Agricultural Leadership Institute. The Institute is an 18 month course specifically designed to guide small, socially disadvantaged, limited-resource and minority farmers through the transformative process of becoming more successful agricultural entrepreneurs. The primary goal of the Institute is to promote the sustainability of small family farms through enhanced business management skills and leadership development. The theme for this session was, "Developing the Leader Within." One of the highlights of this session was the *Real Colors* personality assessment, conducted by Dr. Celvia E. Stovall, Extension Associate Administrator, Alabama Cooperative Extension Service at Alabama A & M University.

To date, 81 small farmers from 14 of the southern states have successfully completed this training. All of these farmers have become change agents in their communities. Class IV consist of 35 small farmers from the following states: Louisiana, Florida, Georgia, North Carolina, South Carolina, Texas, Mississippi, Arkansas, Alabama,

Delaware, Maryland, Tennessee, and Kentucky.

To date, Dr. Mellion – Patin, Agricultural Specialist and Project Director, has received approximately \$1.3 million dollars in competitive funding to conduct this highly specialized training with small farmers from the 17 targeted southern states. This project is funded by the 2501 project, USDA, Office of Advocacy and Outreach.

The Ag Leadership Institute is an 1890 system wide initiative, hosted by the Southern University Ag Center, in collaboration with Kentucky State University, Prairie View A & M University, Tuskegee University, Alcorn State University, Florida A & M University, South Carolina State University, North Carolina A & T State University and USDA.



Indoor training session



## SU Ag Center Promotes Cooperative Formation

Nearly 30 interested participants gathered to learn how to develop a produce-and-craft cooperative group in St. Helena Parish, October 24. The majority of the participants were first time attendees. This was the 3<sup>rd</sup> meeting with the St. Helena Parish group and the surrounding communities attempting to improve economic conditions and create jobs.

Business Development Specialist, Eual Hall explained the benefits of being involved in a produce/craft cooperative. Although participants seemed interested, some of them were undecided.

Harvey Reed, Executive Director, Louisiana Association of Cooperatives and his associate made presentations and committed to supporting the group's effort in form-

ing the cooperative. Most of the participants were only interested in finding a market for their produce and other items. This indicates the importance of marketing to these producers.

Seven individuals already have agreed to serve as steering committee members. The next meeting was scheduled for November 7, to recruit at least fifteen people to serve on the steering committee. Eventually, the board members and other committee leaders will be selected from the steering committee. The 501 (C) (3) application process will begin immediately after board members are in place.



Cross sections of meeting



## St. Helena Parish Wal-mart Foundation Awards Healthy Living Youth Grants

Louisiana 4-H was one of 15 states selected to receive Phase 2 of the Wal-Mart Foundation Healthy Living Youth Grants. The goals of the grants are to mobilize underserved youth in 15 states to take action around nutritional deficiencies and healthy food choices.

The grant, entitled Fit 4 the Future: Youth Choice Youth Voice (Phase 2), will provide resources and opportunities for youth and their families to develop and main-

tain healthy lifestyles, which will ultimately result in youth voice advocating for a fit future.

St. Helena Parish has been named a recipient of the Walmart/National 4-H Council Healthy Living Mini Grant Fit4Life Phase 2.

This grant proposal was written by Angela Myles and Valerie Vincent of LSU and SU Ag Centers.

Angela Myles is Parish Chair, Area Agent, Youth Development in St. Helena and Tangipahoa Parishes.

## National 4-H Encourages Science Experiments among Youth

The 4-H National Headquarters and National 4-H Council announced the 2011 National Science Experiment, themed “Wired for Wind,” introducing young people to the possibilities of using wind as a clean, widely available, and low-cost source of renewable energy.

During the science experiment, 10 youth in St. Helena Parish demonstrated how implementing alternatives to traditional energy production have a positive impact on communities and ecosystems.

St. Helena 4-H youth enhanced their engineering skills by designing, building and testing two different wind turbine models. Wired for Wind also helped youth relate their scientific experiences to their personal lives as they determined

the best location for a wind farm in their parish by calculating wind power and studying wind data and maps.

In the Wired for Wind experiment, youth explored the science and engineering of wind energy technology, which motivated them to learn more about wind and other alternative energy sources. They also discussed the implications of technology for the communities where they live.



Students work on their experiment



## St. Helena Students Perform Community Service

With help from Angela Myles, youth agent, St. Helena and Tangipahoa Parishes, 4-H students at St. Helena Central Elementary School beautified their school with a flower bed this fall. Bracy’s Nursery in Amite donated numerous flowers to the school to help with the school project. Students were taught the importance of community service and giving back to their community at a 4-H club meeting.

“Youth were proud of themselves for planting flowers at their school. Kids are never too young to start working to create a strong, healthy community. By organizing and implementing service projects, elementary schools can promote community service while allowing their students to engage in helpful and productive activities. Elementary school students often enjoy community service projects because they can quickly see the impact that their efforts can make,” Myles said.

The LSU and SU Ag Centers credit Bracy’s Nursery and Police Juror Major Coleman for making this project successful.



## SU Ag Center Promotes Organic Production on the Bluff

Mr. Miles McEvoy, USDA's Deputy Administrator of the National Organic Program (NOP) recently visited the Louisiana Department of Agriculture and Forestry. He made a brief stop to visit with Dr. C. Reuben Walker, Program Leader, Agricultural Sciences at SUBR. Dr. Walker is one of 15 members on USDA National Organic Board.

The Board helps to shape and make organic policies for the United States. The policies ultimately developed, impact not only the United States, but also Canada, Russia, China, the European Union, and other countries.

Currently, Dr. C. Reuben Walker is transitioning 11.8 acres of SUBR on-campus farm land to organic production. The use of the radial system will allow for the timely movement of organic pigs through a series of small paddocks. He hopes to supply the University's Food Service with organic pork, sweet corn, and okra as part of the menu.

Currently, the farm site is conducting research on organic sweet corn, field corn, sugarcane, okra, and soybean. Moreover, he is looking forward to a collaborative and cooperative partnership with the Louisiana Department of Agriculture's Organic Program, Jetson Center for Youth (JCY), Office of Juvenile Justice (OJJ), Southern Development Foundation (SDF), Atchafalaya Port Commission, Sancoft Earth Farm, Whole Foods Store, and church groups. This will help to promote, market, and increase the number of organic producers in the State of Louisiana. Certainly, it will be a win-win for SU Ag Center and the SUBR main campus.

McEvoy previously worked with Mr. Arthur Neal, formerly the Associate Deputy Director for NOP, before taking a position as Deputy Administrator of Transportation and Marketing at USDA. Arthur is a 1990 graduate of the College of Agricultural, Family and Consumer Sciences.



**Left-right: Dr. Walker, Organic Board member/animal science program leader; Dr. Adell Brown, Vice Chancellor for Administration and Finance; Dr. Leodrey Williams, Chancellor, SU Ag Center; Mr. McEvoy, USDA, NOP Administrator; and Dr. Owusu Bandede, Professor Emeritus, sustainable agriculture, SU Ag Center and former Organic Board chairman.**

"We were honored to have Mr. Miles McEvoy to briefly visit our campus," said Dr. Walker.



## Faculty and Staff Accomplishments and Activities

### SU Ag Center Co-produce Cooking Videos

**De'Shoin York Friendship**, SU Ag Center Nutrition Specialist and Program Director, in collaboration with Dr. Heli Roy, LSU Ag Center, has Executively Produced several nutrition education “How To” videos. The videos cover such topics as “How to peel and chop an onion”, “Measuring with Spoons”, “Cutting and Seeding Melons”, “Sautéing versus Frying” and “Making a Roux”, just to name a few.

With so many convenience foods on the market, many people no longer have basic cooking skills. However, with the economy the way it is, most people can no longer afford convenience foods, and have to return to the original, more economical way of cooking. These videos will provide instructions and demonstrations on the basics of cooking techniques. The videos were taped in the demonstration kitchen at Southern

University Ag Center and will be posted on YouTube as well as the Southern University and Louisiana State University Ag Centers’ websites.

**Sarah Sims**, extension aide, Madison Parish, conducted the following activities: Girls Safety workshop for 50 participants at Madison High School; Workshop on JAG Youth Etiquette at Madison High School for 80 participants; Food canning preservation workshop at Southern University for 25 participants in collaboration with Dr. Kasundra Cyrus, specialist, Family and Consumer Sciences and Mila Berhane, Senior Research Associate.



During the canning process



After canning, participants pose with their finished products

**Faculty and Staff Accomplishments and Activities contd.**

**Stephanie M. Elwood**, research associate, community garden, conducted the SU Experiential Learning Garden MISS-LOU project cooking class. The class cooked with ingredients from the project's garden.

Youth participants enjoyed cooking quesadillas with mustard greens from the garden, using homemade honey mustard which they made from scratch.

Participants ate baby lettuce greens in their salads, and some wonderful butternut squash cake made by Mila Berhane, senior research associate.

"Everyone loved the menu," Elwood said.



**Dr. Fatemeh Malekian, nutrition professor, works with youth participant**



**Youth participant practices the art of cooking**



**Food is ready**

## Faculty and Staff Accomplishments and Activities contd.

### Presentations and Publications



**Dr. Renita W. Marshall**, Assistant Professor, Sustainable Agriculture, Southern University Ag Center, published an article enti-

tled *Herd-Health Programs for Limited-Resource Farmers: Prevention Versus Treatment*, in the *Journal of Extension*, October 2011 - Volume 49, Number 5.

Her article discusses the changing influences on animal health regarding the responsibility of delivering educational programs to limited resources farmers on the importance of herd health by Extension professionals.

Marshall's article states that "Herd-health programs must be designed and implemented with the help of an Extension veterinar-

ian to provide routine, planned procedures that will prevent or minimize on-farm diseases."

The article stresses the necessity for Extension professionals to get involved in educating small farmers on the importance of animal health to enable them to maximize opportunities to participate in new markets for agricultural products.

To read the full article, visit *Journal of Extension* at [www.joe.org/](http://www.joe.org/)



**Dr. Fatemeh Malekian**, associate professor, nutrition, was co-author of an article entitled *Characteristics of meat or sausage patties using pulses as extenders* along with Darryl L. Holliday,

Carla Sandlin, Alex Schott, and John W. Finley in the *Journal of Culinary Science Technology*.

The article discusses how meat patties were produced from either beef (20% fat) or pork (18% fat) and 23 different pulses. The pulses were blended with meat at 35, 42.5, and 50% ratios. The blends were formed into 113.4-g (4-oz.) meat patties or 56.7-g (2-oz.) pork sausage patties. Each patty was blast frozen, stored at -20°F (-29°C) in food-grade resealable freezer bags, and then baked in a 74°C oven for 15 minutes before testing for weight loss, diameter loss,

color, and texture. The 50:50 ratio samples had the least amount of cooking loss but the greatest visible bean fraction. All fractions improved nutritional profile. Navy, light red kidney, and small red beans were found to be most beneficial/acceptable as partial meat substitutes.

The article is available at the *Journal of Culinary Science Technology*, [Volume 9, Issue 3](http://www.tandfonline.com/doi/abs/10.1080/15428052.2011.594731), 2011. P 1 5 8 - 1 7 6 . <http://www.tandfonline.com/doi/abs/10.1080/15428052.2011.594731>

## Upcoming Events

**November 12:** Gaited Horse Show, gate open at 12 noon and the show begins at 4:00 pm. at the SU Maurice Edmund Livestock Arena. For more information, contact Christie G. Gremillion-Monroe at 225-771-4350.

**December 14 – 17:** Small Farmer Agricultural Leadership Training Institute, Prairie View A & M University, Houston, Texas. For further details, please contact Dr. Dawn Mellion-Patin at 225-771-2242

**December 15:** St. Helena Parish Youth Educational Support Christmas program in Turner Chapel A.M.E. Church, Greensburg at 6:00 p.m. For more details, please contact Angela Myles at (225)-222-4136.

**January 18 – 22, 2012:** Small Farmer Agricultural Leadership Training Institute, Southern University Ag Center, Baton Rouge, Louisiana. For further details, please contact Dr. Dawn Mellion-Patin at 225-771-2242