

on the *move*

Preparing. Finding. Implementing solutions.

North Carolina A&T University
School of Agriculture and
Environmental Sciences
Newsletter

Fall 2002 • Vol. 1

SAES Researchers Hope Golden Leaf Funding Will Mean More Green for Limited-Resource Farmers



Tastier pork, exotic mushrooms and specialty fruits, vegetables and herbs might be part of the answer to small-scale farmers fretting over lower tobacco prices and the increasing costs of farming. That's the belief of several North Carolina A&T State University SAES researchers who are working on three projects funded by the Golden LEAF (Long-term Economic Enhancement Foundation) for a total of \$575,000.

The first project, "Alternative Value-Added Cash Crops for North Piedmont District Tobacco Farmers," was awarded funding in 2001, while "Edible and Medicinal Mushroom Farming in North Carolina: A Cash Crop for the Future" and "Upscale Pork Markets for Small Scale Hog Producers"

Dr. Omon Isikhuemhen displays mushrooms and substrates in his lab during this summer's Golden LEAF Field Day.

received funding in 2002.

With each of these grants, SAES researchers test the potential of alternative enterprises in a limited-resource setting, while offering farmers financial and technical assistance to help them explore alternative enterprises.

"Because of the way that they are structured and because they specifically target limited-resource farmers, the Golden LEAF projects have attracted a tremendous amount of attention," said Dr. Alton Thompson, SAES dean. "Farmers know that they have to find a substitute for tobacco and they appreciate

the support system created by these projects as they explore alternatives."

These opportunities brought more than 100 visitors to the A&T Farm Complex this summer for a field day, which was coordinated by Dr. Keith Baldwin, a horticulture specialist with the A&T Cooperative Extension Program. During the field day, project coordinators were on-hand to explain their projects, provide demonstrations and answer questions from farmers and potential farmers.

"We're proud to help small-scale farmers find new ways to continue farming," Thompson said. "And we're thankful to Golden LEAF for providing us the resources to carry out this very important part of our mission."

The Golden LEAF, based in Rocky Mount, provides economic impact assistance to economically affected or tobacco-dependent regions in North Carolina.

Golden LEAF is a nonprofit organization that was created in 1999 to oversee the money distributed from North Carolina's settlement with Philip Morris Inc. and other tobacco companies.

Dr. T's Moment

"on the move." Talk with any of us in the School of Agriculture and Environmental Sciences, the Research Station or the Cooperative Extension Program and you get the feeling that we are on the move. We are working to safeguard our food and water supply. We are helping our farmers and needy citizens develop profitable enterprises and erase the digital divide and we are fueling positive change in our communities. Our customers are reducing debt and developing goals to help them meet their present and long-term financial needs. And efforts are underway to wean small scale farmers from tobacco to alternative, but profitable enterprises, including goat meat, medicinal and edible mushrooms, upscale pork and galax.

In other words, we are on the move.

This is why we redesigned this newsletter. Each issue will show you the best of us. These pages will highlight efforts that offer solutions to our state's residents and promote the work and research being done in our School.

I hope you will enjoy what we have to say and I look forward to you telling me what you think about our hard work.

inside

- Representative Mel Watt visits SAES
- Ag. Alumni Weekend scheduled for October 5
- SAES leads A&T's water conservation efforts

U.S. Rep. Watt Dons Labcoat, Gets Firsthand Look at SAES Research



Rep. Mel Watt readies himself for work as Dean Alton Thompson (left) and Dr. Mohamed Ahmedna (center) look on.

When U.S. Rep. Mel Watt is on the House floor, he's referred to as "The Gentleman from North Carolina."

Recently, he laid aside that title to become a lab assistant helping an A&T food scientist who is working to protect the nation's food supply.

Dr. Mohamed Ahmedna, an assistant professor of food chemistry and biochemistry in SAES, welcomed Watt to his lab as part of the congressman's "Trading Places" program.

"The congressman uses the time when the Congress is not in session to visit interesting sites and people in his district," said Jermaine Dennis, a



Jermaine Davis

sophomore Animal Sciences student who spent the summer working as an intern in Watt's Greensboro office. "These visits give him an opportunity to see the successes and challenges of people in the district, and

they set a context for the congressman's agenda when he returns to Washington."

Watt said the experience provides him an opportunity to be more engaged with his constituents.

"Our interaction provided me a forum to learn and listen to the issues and concerns by our legislative process," Watt said.

During their hour together in Ahmedna's Carver Hall lab,

Watt and Ahmedna conducted two experiments, one designed to examine food samples for the presence of Salmonella, and another to measure selected food quality parameters, such as texture, color and water content.

Both experiments introduced Watt to ongoing projects in Ahmedna's lab. In the food safety arena, Ahmedna leads a group of scientists who are developing a unique tool to

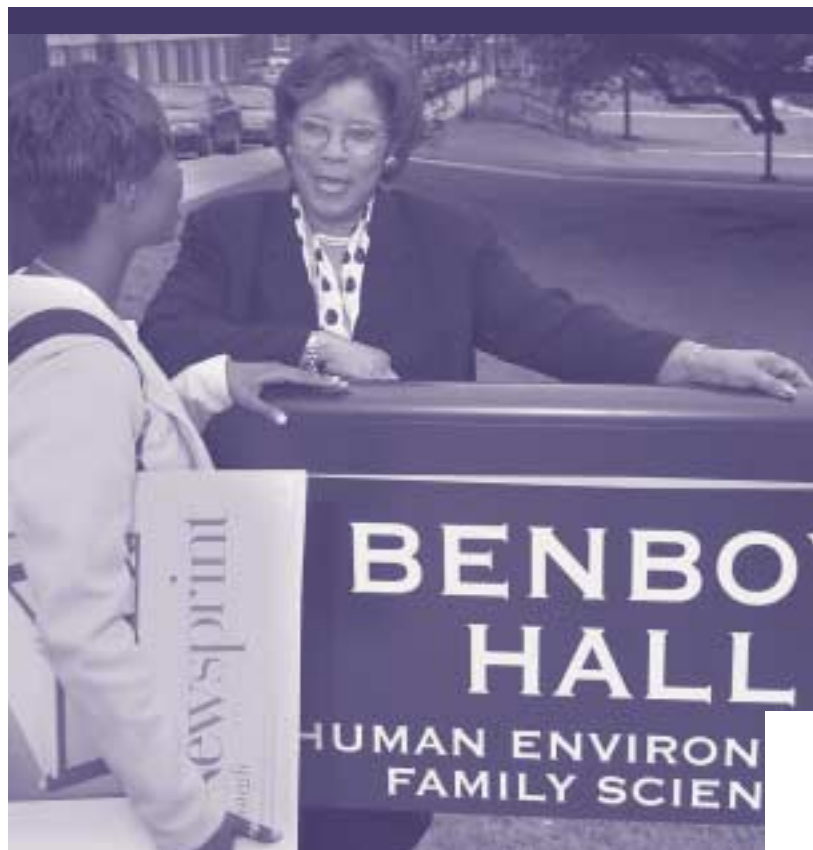
detect the two most common pathogens on poultry products, *Campylobacter* spp. and *Salmonella* spp. Once complete, the tool will be refined to be easily portable, so that those routinely working with poultry products can benefit from it.

In product development, where food quality is paramount, Ahmedna leads a project focused on the development of a meat substitute from peanuts. He believes that the product will appeal to vegetarians and those who want diets with lower cholesterol levels; however, it must have meat-like qualities, which

appeal to consumers.

"If consumers don't like a product, they won't buy it," said Ahmedna. "We use the food quality measurement instruments to take some of the guesswork out of determining what consumers will and will not like. Once we have a product which we believe will be accepted by consumers, we test it with tasting panels and similar experiments."

This past spring, Ahmedna was recognized with the university's prestigious Young Investigator of the Year award, which is awarded annually to one researcher who is relatively new to A&T and has already made outstanding contributions to their field of research. Last year, another SAES researcher, Dr. Guochen Yang, won the same award.



SAES Leads A&T's Water Conservation Efforts

A&T students who spent the summer in hometowns outside the Southeastern Drought Belt returned to Greensboro this fall to find a different way of life. Greensboro residents spent the summer with a ban on lawn sprinklers, hosing down driveways, rinsing off patios and other twists of the spigot they used to take for granted. Although Greensboro has been able to purchase and pipe in water from neighboring municipalities, that solution is far from satisfactory. It's costly to pump in water, and as the drought continued through the summer, neighbors that once had more than enough water also began to run short.

But two A&T Cooperative Extension's resources specialists, Dr. Robert Williamson and Dr. Ellen Smoak, were ready with a comprehensive list of water conservation tips when students returned to campus. The pair created a poster, entitled, "Campus Water Conservation 101: Let's Not Fail," and are working with the student group Minorities in Agriculture and Natural Resources and Related Sciences

(MANRRS) who posted the signs and will lead water conservation talks in the dorms.

Williamson points out that a typical faucet pumps out three-to-five gallons a minute, and the old habits of letting the water run during shaves, face-washings and teeth brushing quickly add up.

"Although Greensboro's water supplies haven't kept up with the city's population growth and the inadequate supply is contributing to the water shortage, the city is nonetheless close to the center of the belt running from Georgia to mid-Virginia that's now entering its fifth year of sub-par rain and official drought," says Williamson. "By helping 9,074 Aggies understand the necessity of water conservation and how little changes in personal use can add up to considerable savings, I think Cooperative Extension is spreading the word about water conservation to an audience that's going to pass the information along. Students we reach are going to be sharing water-wise advice with families in small towns, and landlords here in Greensboro."

Shelton Returns to A&T to Lead HEFS

Dr. Gladys Gibson Shelton has been named chairperson of the Department of Human Environment and Family Sciences at N.C. A&T.

Shelton mostly recently worked as an associate professor in the Department of Housing and Consumer Economics at the University of Georgia. She holds a Ph.D. in Family Housing from Virginia Polytechnic Institute and State University, a M.S. in Housing and Rural Sociology from Cornell University and a B.S. in Home Economics Education from North Carolina Central University.

She replaces Dr. Chung Seo, who had served as interim chairperson of the department. Seo will continue his research and teaching assignments within the university.

The Department of Human Environment and Family Sciences, one of four departments in the university's School of Agriculture and Environmental Sciences, offers educational degree programs in child development, family and consumer sciences education, foods and nutritional sciences and fashion merchandising and design.

Researchers within the department also lead several food safety projects.

Dr. Marihelen Glass has been named a certified professional horticulturist by the American Society for Horticultural Science (ASHS). The ASHS Certified Professional Horticulturist (CPH) program identifies qualified horticultural professionals for educational, scientific and service activities with public and private agencies. CPH certification is granted based on scholarly presentation, required participation in continuing education programs in particular areas of specialization and work experience supported by references.

Dr. John O'Sullivan spent some of his early-morning summer hours studying marketing techniques and consumer behavior in the produce section of Whole Foods Market in Chapel Hill. While there, O'Sullivan learned the display tactics grocery stores use to enhance the sale of fresh produce, as well as what qualities retail outlets look for when considering buying produce from local growers. He is now sharing this information with the state's small-scale farmers in hopes of improving the sales of their roadside stands and possibly opening markets for them with established grocery stores.

Dr. Godfrey Gayle has been appointed to the North Carolina Board of Licensing of Geologists by Governor Mike Easley. In this role, Gayle, director of A&T's Bioengineering Program, will join four others on a board which sets standards for licensed geologists in North Carolina.

Dr. Ipek Goktepe presented the paper, "Extending the Shelf-Life of Chicken Using Biopreservatives," to the American Society for Microbiology at that organization's annual meeting in Salt Lake City. Goktepe's research focuses on the biopreservation of chicken products using a natural flora found in the intestinal tract in combination with organic acid salts.

"If we are successful in demonstrating this technique to be safe, and it gains acceptance by USDA, the benefits would be twofold," said Goktepe. "Consumers would enjoy improved quality in the chicken they buy, and they would be able to keep it longer. Plus, there would be less waste among grocers who must discard chicken once it passes a certain number of days on the shelf."

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Dr. Alton Thompson, *Dean, School of
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calendar

A&T HOMECOMING WEEKEND OCT. 6-13

Ag Alumni Weekend, Oct. 5
SAES Alumni Society Annual Meeting, 10:30 a.m.
B.C. Webb Hall Auditorium
Brunch, 12:30 p.m.
Webb Hall Student Lounge.
\$10 registration fee, \$12 at the door
Call 336-334-7979 for more information

A&T Homecoming, Oct. 6-13
Check A&T website for details www.ncat.edu

Saturday, Oct. 12 - homecoming parade, football game - A&T vs. Morgan State, SGA homecoming concert, national alumni dance. For ticket information, 336-334-7749. **Don't forget to stop by the SAES tent during the pre-and post-game activities.**

University Fall Open House, Nov. 12



MARK YOUR CALENDARS:

SAES Career Expo - March 2003
Small Farms Week - March 2003