SAES food safety researchers have advice on E.coli

An SAES food safety researcher is recommending strategies to improve monitoring for E.coli in spinach and other fresh-cut produce.

Dr. Salam Ibrahim encourages fresh-cut processing plants that monitor E.coli in spinach to use larger sample sizes and conduct multiple testing. He said that oftentimes, each sample is 10 grams (about a handful) and is tested just once. Instead, he suggests that samples should be at least 10 times that amount, and recommends that several tests be conducted on each sample.

"Unless you have a large sample size, and more testing, E.coli can be very hard to detect in spinach," he said.

E.coli can also be very hard to destroy. Another food researcher, Dr. Chung Seo, has been attacking the issue from that angle, with an innovative wash system that uses ozone instead of chlorine. Ozone is now used in water treatment and in juice manufacture, but could have other applications as well. Seo says ozone is more powerful than chlorine for destroying microorganisms, including E.coli, and, moreover, is superior to chlorine because it is self degradable after 20 to 30 minutes in water and leaves no residues.

"Ozone can reach more surface areas including cracks and crevices and thus is more effective. However, the technology is still in its infancy, and more research is needed," Seo said.

Food safety and E.coli O157:H7 are a major topic of research in the SAES, and scientists are making other advances in the field. Ibrahim recently developed and patented an all natural treatment that inhibits the growth of the pathogen in ground beef, and, among other things, is now researching methods for rapid detection of E.coli and spoilage bacteria in leafy greens. He has also conducted extensive research on the use of herbs and other natural products against E.coli and other foodborne pathogens.

Another advance is a portable biosensor, developed by Dr. Mohamed Ahmedna, to prevent outbreaks and recalls through rapid detection of foodborne pathogens.

Ibrahim and others in SAES are encouraging fresh-cut produce processors to focus more on prevention by implementing Hazard Analysis and Critical Control Points (HACCP). The HACCP is a food safety system that includes identifying critical points where biological, chemical or physical contamination could occur, and monitoring for the presence of foodborne pathogens. Although HACCP plans are mandatory for many other food industries — including meat, poultry, fruit juice, and others — the Food and Drug Administration does not at present require them for the fresh-cut produce industry. However, the system has been adopted voluntarily by many segments of the industry and is recommended by the International Fresh-cut Produce Association.
Extension sets table for nutrition

The Cooperative Extension Program at A&T is expanding its nutrition programming, both by adding a national program to its mix and by aggressively providing more nutritional outreachs to at-risk communities.

Extension also recently hired Stephanie Tatum as its nutrition program outreach coordinator. Tatum is carrying out a piece of the federal Expanded Food and Nutrition Education Program (EFNEP) that will complement programs led by long-time nutrition specialist, Dr. Wilda Wade.

A&T Extension is responding to the escalating health problems linked to nutrition, including problems such as obesity and diabetes that disproportionately affect African American and Hispanic communities.

“The Cooperative Extension Program at A&T is increasing its activity. N.C. State is collaborating with A&T and support EFNEP efforts. A&T’s EFNEP education efforts are concentrating on youth, with a special focus on pregnant teenagers, including efforts to update the ‘Hey! What’s Your Cookie’ curriculum targeted at the teens,” Tatum says, because so many of them are themselves still developing, and because many also don’t realize the vital link between what they eat or don’t eat, and how that affects their babies.

“Research shows that if a pregnant teen has prenatal care, eats the right amount of food to ensure a healthy-weight baby, and if they are able to continue in school and get the skills they need to take care of themselves, then they are going to be more productive citizens,” Tatum says. “That benefits all of us.”

In addition to EFNEP programming, Tatum will focus on healthy eating programs that involve advocating the use and application of the updated dietary-guide line, now called MyPyramid. Revised by the U.S. Department of Agriculture, the MyPyramid makes dietary recommendations based on a personalized assessment of the user.

New academic alliance means new opportunities in distance education

The first-ever 1890 Academic Alliance, which was spearheaded by the SAES, has given birth to its first program: a distance education program in family financial planning. The six-course program is now available to students at eight 1890 universities. The course is delivered online and prepares them to take the Certified Financial Planner (CFP) Board of Standards exam.

Now that the alliance has been established, additional distance education programs in family and consumer sciences are expected to be added in the coming years.

For Monica Johnson, one of the 28 students enrolled in the new program, the motivation to study toward becoming a CFP could be summed up in one word: opportunity.

“I thought that would give me more job opportunities after graduation,” said Johnson, who is also majoring in early childhood education.

“That opportunity is growing, according to the U.S. Bureau of Labor Statistics, which reports that the number of jobs in the financial services industry is rising faster than average, and offering median annual salaries of $62,000. That growth in part is due to demographic and industry trends, says Bill Fleming, CFP program coordinator.

“We used to think of financial planning, and estate planning in particular, as serving primarily very wealthy clients. But the financial planning industry is now offering more services to the middle class and even those struggling to achieve the middle class,” he said.

The industry is also very interested in adding more minorities to its ranks, observed Dr. Gladys Shelton, chair of the Department of Family and Consumer Sciences and leader of the alliance project.

“Less than 1 percent of CFPs are minorities, so this program will help to address that disparity,” she said. The Cooperative Extension Program has also recognized the importance of its financial planning resources for educators.

Academic alliances are an important, and growing trend in higher education that enable universities to share faculty and other resources, says Shelton.

“Establishing a new program is very expensive for any single university to undertake,” she said. “But by setting up an academic alliance, universities can share administrative, faculty and technical resources and offer more programs to more students.”

Funding to establish the alliance was through a USDA Capacity Building Grant. In addition to N.C. A&T, Tennessee State and Fort Valley State universities also collaborators on establishing the alliance.

For more information about the family financial planning program, log on to http://www.1890cida.org/.
This year SAES is the host school for Alumni Homecoming 2006. We invite all our alumni, faculty, staff and friends to join us for these Homecoming Weekend activities:

Your $50 per person contribution to the Dean’s Scholarship Fund provides access to SAES Homecoming events.

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Friday, Oct. 20, 11 a.m.–2 p.m. — “A Southern Taste” — Webb Hall
(Featuring North Carolina’s finest barbecue, chicken and fixings)

Saturday, Oct. 21, 8 p.m.–Midnight — SAES Hospitality Suite — Sheraton Four Seasons

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