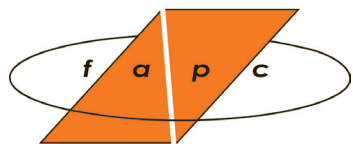


Food & Agricultural Products Center



FLASH!!

OKLAHOMA STATE UNIVERSITY™

Oct. 24, 2006

FAPC Receives Electrolyzed Water Generators

STILLWATER, Okla. – Unitherm Food Systems of Bristow, Okla., donated two electrolyzed water generators to the Food & Agricultural Products Center on the campus of Oklahoma State University in Stillwater, Okla.

FAPC Director Roy Escoubas praised Unitherm Food Systems for this donation.

“Results show this state-of-the-art process would give food processors in Oklahoma a way to continue to improve their methods to make food safe for Oklahoma consumers,” Escoubas said.

The generators add electricity to salty water, resulting in a non-toxic solution that eliminates bacteria, yeast, molds and viruses on food, food processing equipment or any other hard surface, said Jake Nelson, FAPC value-added meats processing specialist.

“This generator has been installed in-line with the FAPC’s steam pasteurization unit and will be used for researching electrolyzed water’s effects on pathogens that may be found on freshly slaughtered carcasses, including beef, pork and lamb,” Nelson said.

Generators apply an electrical current to a drinkable water solution, said Peter Muriana, FAPC food microbiologist. The small amount of salt in the water serves to conduct the current.

“The electrolytic process results in the formation of water with an antimicrobial effect,” Muriana said.

“This electrolyzed water is similar to the weak bleach

solutions placed in swimming pools, but is more effective against harmful foodborne bacteria.”

In meat and poultry processing areas, electrolyzed water is approved for use by the U.S. Department of Agriculture and is generally recognized as safe.

The use of electrolyzed water does not stop with meat and poultry. It is currently being examined in other processing areas, including sanitary washes for fresh produce, vegetables, fresh-cut melons and shell egg processing and processing environment. There are even applications addressing the use of electrolyzed in animal production quarters, as well as in their drinking water.

Scientists in the department of animal science at OSU are investigating ways in which electrolyzed water solutions can be used in poultry and swine production facilities to improve animal health and reduce the risks of harmful bacteria getting into the food supply.

FAPC researchers are beginning to test the efficacy of electrolyzed water as an anti-microbial intervention for use on ready-to-eat meat items.

Oklahoma-based SanAquel LLC, a partner company with Unitherm Food Systems, patented the electrochemical activation process.

“Although it’s not a new process, few companies are demonstrating SanAquel LLC and Unitherm’s vision to implement electrolyzed water throughout a processing environment using automated generators, PVC

-more-

plumbing and spray nozzles to mist and fog the liquid as a sanitizing solution into bacteria-sensitive areas in processing facilities,” Muriana said.

Using electrolyzed water is cost effective because it eliminates chemical shipping and storage costs, Muriana said.

“A big advantage of electrolyzed water over other types of antimicrobials is electrolyzed water is safe to spray even in the presence of humans, which can

hardly be said for other sanitizing solutions that may cause respiratory problems and must only be used after a production shift,” Muriana said.

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