Faculty members extend shelf life of crawfish

by Gregory E. Vaughan
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While many people still cringe at the thought of devouring one of those muddy little freshwater crustaceans known as the crawfish, crayfish, or mudbug, natural and adopted Coon-asses alike regularly feast upon the beloved lobsters-in-miniature.

Due to the increasing popularity of crawfish dishes in better restaurants around the world, crawfish are becoming a major cash crop in the state of Louisiana. USL faculty members Dr. Mellie Derise, Rachel Fournet, and Dr. Balbina Plotkin are engaged in a successful effort to further the frontiers of crawfish technology by devising a more effective, inexpensive, and downright tasty method to preserve crawfish during shipment and storage. The process is relatively simple, and ingenious in that respect: a single layer of shell-ed crawfish, fat intact, is sealed into a plastic bag, and then exposed to microwaves at a high intensity over a short period of time. This process does not last long enough to cook the meat, but greatly reduces the bacterial content.

"Bacteria are primarily responsible for the spoilage of food," according to Plotkin. "The more bacteria present, the faster the food spoils. Some organisms by themselves can cause food spoilage. By decreasing the bacteria overall, we can extend the time in which the food can be eaten safely."

Although the testing has not been extensive enough to meet FDA standards, the results of USL tests have been more than promising; the preserved crawfish show no signs of spoilage after 17 days in the refrigerator or five months in the freezer. "A lot of people can freeze crawfish that long," said Fournet, "but they have to freeze the meat in water." Dr. Derise added, "Our method, which doesn't use water, leaves the fat on the meat. The fat gives the meat a different flavor."

This flavor is much desired by chefs who frequently add crawfish fat to their recipes. The fat-on aspect of the method has caught the eye of the crawfish processing industry: the fat not only adds weight but requires labor to remove. Therefore, the price per pound can be lowered and they can still ship an improved product.

According to Derise, the trio are presently preparing to meet with a group of engineers to design a microwave unit for industrial use, and to put it into use at a processing plant. They plan to finish this within a year. A future effort will include the vacuum packing of the meat. "Yes, we are very excited," Derise admitted.