A few years ago, crawfish were virtually unknown—and worse, uneaten—outside Louisiana and a few other Southern States.

But times have changed. Crawfish, long a delicacy here, have taken on the cloak of edibility in other markets and are regularly shipped—when in season—from Louisiana to the Midwest and Northeast.

But all is not roses with the mudbugs. With their new dinner role, several problems have arisen, and questions concerning the use of crawfish must be answered. To help find the answers, the Louisiana Crawfish Association has made a research grant to three members of the faculty at the University of Southwestern Louisiana in Lafayette.

Miss Nellie L. Derise, assistant professor of home economics, is developing and testing crawfish recipes. A tasty chore.

Dr. Charles W. Caillouet Jr., professor of biology, is studying changes which occur in the glycogen and lactic acid of crawfish after capture.

Dr. Joseph M. Sobek, professor of microbiology, is studying crawfish microorganisms.

The latter two studies, although technical, are aimed at developing the best methods of handling crawfish between the time they are harvested and when they are sold to the consumer.

"Crawfish is one of the few types of fish not iced immediately after capture," says Dr. Caillouet. "At the same time, one of the most perplexing problems now faced by the industry is the variability in flesh quality of marketed crawfish. We’re trying to determine whether or not icing at time of capture would make flesh quality more consistent."

Oldtime crawfish netters might question the wisdom of this, because the crustaceans are captured alive. However, Dr. Caillouet points out, crawfish become very active once taken out of water. The combination of activity and removal from water might accelerate glycolysis, the exhaustion of glycogen (animal starch) and other energy stored in the abdominal muscles (the tail). Also, there might be an increase in acidity—caused by production of lactic acid. This can hasten the onset of rigor mortis and decrease its duration. As a result, spoilage microorganisms increase rapidly and protein breakdown begins.

If cooling slows the time in which rigor mortis develops, then prolongs it, crawfish would keep better and the quality of the flesh would be more consistent.

By testing flesh of crawfish harvested the normal way, then comparing it with flesh of crawfish iced or frozen immediately after harvest, Dr. Caillouet hopes to come up with some definite answers.

Dr. Sobek’s microorganism study is aimed at finding what affect the various methods of handling and harvesting might have on the bacteriological quality of the food.

The studies of Dr. Caillouet and Dr. Sobek are concerned with what happens to crawfish before they reach the consumer.

Then there’s Miss Derise’s recipe work.

At present, most crawfish recipes start: “First you make a roux...” The base for most Creole dishes, a roux is virtually unheard of outside of Louisiana. It’s a combination of browned flour and lard used to thicken dishes.

Miss Derise is working to develop dishes which would fit into styles of cooking in other parts of the United States. She’s testing such items as crawfish casseroles, crawfish-stuffed peppers, breaded crawfish tails, crawfish patties and spaghetti and crawfish.

She’s also attempting standardizing recipes for well-known crawfish dishes as etouffe (a kind of stew), jambalaya and bisque. These dishes differ from area to area within Louisiana, which is well and good.

But elsewhere, these differences might not be appreciated. For instance, a St. Louis housewife would expect the etouffe purchased one week and put out by one processor to be much the same as that bought the week before and put out by another processor.

The recipes developed and standardized by Miss Derise will be scored by a panel of testers for flavor, tenderness, texture, color and odor.

A few years ago, crawfish were virtually unheard of outside of South Louisiana. All of this is now changing, to the taste delight of gourmets.