UL CRAWFISH RESEARCH - Dr. Wayne Denton, left, University of Southwestern Louisiana assistant professor of biochemistry, is directing one phase of the crawfish research being conducted at USL. He is directing research of two graduate students, Clyde L. Rougeou Jr., center, and Robert Druilhet, right, both of Lafayette. Rougeou has built test chambers to provide a controlled environment for crawfish. A one-way mirror allows for the observation of the crawfish in their response to different types of chemicals provided for each test chamber. The object is to discover what chemical compounds attract crawfish. When an attractant is determined, then the crawfish farmer can know what will attract crawfish to his farm. Dr. Jerome Roux is at the gas chromatograph which he uses to make his analyses of chemical compounds in crawfish fat. All the chemicals would not be involved in the flavor. Their interest in the crawfish research project is concerned with five elements: "Product Quality, Marketing, Frozen Storage," which is under the direction of Dr. James Carroll, professor of marketing, and Dr. Jack Testerman, USL director of instructional research, is coordinator for the four-part crawfish research project being conducted with funds of $20,000 earmarked for the purpose by Gov. Edwin Edwards. Second Experiment. For the detection of dissolved substances (element IV above), Rougeou has built test chambers to provide a controlled environment for crawfish. A one-way mirror allows for the observation of the crawfish in their response to different types of chemicals provided for each test chamber. The object is to discover what chemical compounds attract crawfish. When an attractant is determined, then the crawfish farmer can know what will attract crawfish to his farm. Expanding Crawfish Market. A vastly expanding crawfish market has given great impetus to the commercial processing of crawfish and the research project being conducted under Denton's and Fitzpatrick's directions is a key factor. Long-term storage causes crawfish to spoil even though cooked. Research conducted at USL utilizes a distillation process for the spoilage treatment of crawfish fat prior to frozen storage to prevent this spoilage. Continuous experiments are being conducted. Entrainment Of Flavor. Present experiments involve distillation of crawfish fat with entrainment of much of the flavor as distillate. The distillate can be added to wet crawfish tails to restore much of the flavor lost when the fat was removed. "What the research is really concerned with," he said, "is obtaining the materials from the crawfish fat which have the flavor of crawfish but which do not become removed upon frozen storage. Artificial Type. We are thinking in terms of an artificial type of fish flavor product for use in the less developed countries where there is a shortage of fish. Since fish is the basic diet in many of these countries, a fish flavored food product is more practical. "When an artificial flavor for crawfish is developed by using the vital chemical compounds, then there should be only minor changes made for the development of other shellfish flavors. The research is pertinent in view of the popularity of shellfish not only for the nation but also on a worldwide scale. Added to this is the local interest in crawfish and its commercial value to the state. After the development of the distillation process at USL, the treatment of crawfish fat, same tank of ponds was needed to commerce to taste the small quantities of crawfish fat. The research conducted by Rougeou early from the frozen crawfish to judge the flavor. The taster panel was conducted under the direction of Dr. Pete Dickinson, USL assistant professor of statistics. The response of the panel was favorable. The crawfish were prepared with a minimal amount of seasonings to assure analysis of the flavor rather than the seasonings.