



RACs

Results

Fall 1997

Cooperative State Research,
Education and Extension Service
(CSREES)

Southern
Regional Aquaculture Center
(SRAC)

Food Safety and Sanitation of Aquaculture Products: Microbial

by J. Larry Wilson, The University of Tennessee

Challenge

Southern aquaculture products have long enjoyed the reputation of providing excellent quality along with consumer safety. This project was designed to evaluate data on microbiological quality in channel catfish, trout, and crawfish processing and distribution operations. In addition, various methods to detect and reduce significant spoilage and pathogenic microorganisms were also investigated. The overall goal of this project was to promote and insure the quality of southern aquaculture products.



Courtesy of Craig Tucker

Aquaculture products are raised under strict quality assurance programs.



Courtesy of Juan Silva

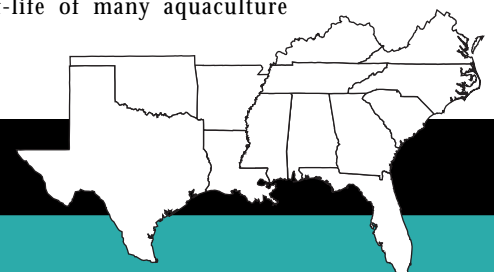
Rapid processing and packaging assure products of the highest quality.



Courtesy of Juan Silva

Development of modified atmosphere packaging (MAP) techniques have helped improve shelf-life of many aquaculture products.

Ensuring safe food products for American consumers



Research and extension solutions for aquaculture

Southern Regional Aquaculture Center (SRAC)

Response

Twenty-one research and extension scientists participated in the 3-year project from April 1992 through August 1995. Participants represented nine universities and agencies:

- Auburn University
- University of Florida
- University of Georgia
- Louisiana State University
- Mississippi State University
- University of Tennessee
- Texas A & M University
- Texas Agricultural Extension Service
- Virginia Polytechnic Institute & State University

The work was initiated with a 3-day *Aquaculture Safety Forum* which brought together industry, academic, and governmental



Courtesy of George Flick

The development of a one-day rapid assessment procedure for enumerating bacteria will allow processors to ensure microbial quality of their product prior to shipment to the public.

agency representatives to assess all relevant data available on the safety of aquaculture products.

Impact

The results of this project reveal that cultured fish represent one of the safest sources of muscle protein and related



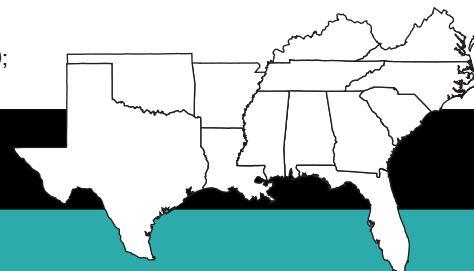
Courtesy of Juan Silva

Farm-raised fish are one of the safest foods available.

nutrients among all muscle foods produced in the United States. The development of HACCP (Hazard Analysis Critical Control Point) audit procedures has become an important quality assurance tool which ensures product quality and consumer safety. Improved and newly-developed modified atmosphere packaging (MAP) techniques have been implemented in commercial processing which have increased the shelf-life of many aquaculture products. Approximately 100 published articles, fact sheets, videos, and oral presentations have been produced as a result of these research studies. These include valuable information on processing, temperature control, spoilage, purchasing, storage, handling, and preparation of aquaculture products.

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