

Contact

Luke Howard, PhD

Associate Professor

Extension Food Processing Specialist
Institute of Food Science and Engineering

Food Science Building

272 Young Avenue

Fayetteville, AR 72704

Phone: (501) 575-2978

Fax: (501) 575-2165



Justin R. Morris, PhD

Director

Institute of Food Science and Engineering

Food Science Building

272 Young Avenue

Fayetteville, AR 72704

Phone: (501) 575-4040

Fax: (501) 575-2165



Visit the web site at www.uark.edu/depts/ifse/

INSTITUTE OF FOOD SCIENCE AND ENGINEERING

Food Science Building

272 Young Avenue

Fayetteville, AR 72704

Phone (501) 575-4040, Fax (501) 575-2165

Justin R. Morris, PhD, Director

To serve the food industry, the University of Arkansas system, through the Division of Agriculture and the Dale Bumpers College of Agricultural, Food and Life Sciences, established the Institute of Food Science and Engineering. The Institute is composed of interactive technology centers that provide research and extension support for value-added processing of agricultural products. The Center for Food Processing and Engineering was activated in 1995, and the Center for Food Safety and Quality was activated in January 1997.

The Institute mission is to provide technical advances in food processing and packaging that foster safe, efficient and environmentally responsible systems. This mission relates to the public's need for safe, affordable, nutritious food products and to the need for economic growth in the agricultural production and processing sector.

The Institute promotes value-added research alliances of food processing companies and the University. Alliances are encouraged by the simple mechanism of the Institute providing matching funds for an industry research grant and devoting appropriate expertise and facilities to the project. This mechanism encourages the industry to take advantage of the University's research and extension expertise and resources; it allows the industry sponsor to focus attention on a specific problem, and prompts the Institute to assemble an interdisciplinary research team. This demand-driven approach assures that University resources are applied to projects that have a direct, positive impact on processed foods.

Food Processing Facilities and Capabilities



INSTITUTE OF FOOD SCIENCE
AND ENGINEERING

UofA

UNIVERSITY OF ARKANSAS
DIVISION OF AGRICULTURE

IFSE Processing Equipment and Capabilities

How can IFSE Scientists Help Your Company Develop New Products and Improve Existing Products?

The UA Department of Food Science operates a pilot plant with state-of-the-art thermal processing equipment. The pilot plant can mimic operations of various pasteurization and sterilization techniques for acidified and low-acid foods to produce benchmark results in trial runs of new products or to improve existing products.

Pilot plant equipment includes washers, blanchers, cutters, mixers, kettles, finishers, can seamers, vacuum cappers, dehydrators, a modified atmosphere packaging machine and other items necessary to prepare and process most any product from fresh-cut fruits and vegetables to canned foods.

Your company can benefit from nearly 50 years of product development and research experience by the IFSE Food Processing and Product Development faculty and staff.

Let IFSE scientists assist you in your next product formulation or process determination.

FMC Steritort Model 610-10 Laboratory Pressure Sterilizer with LogTec Automated Control System



Steritort

The Steritort will simulate the operation of rotary, orbital and hydrostatic retorts. It is equipped with thermocouple and data logging equipment to determine lethality in any product. Variable reel speeds and steam pressures can simulate any product specification. Processes for acidified and low acid canned products can be accurately determined.

FMC Model 091-A Pilot Sterilizer with LogTec Automated Control System

The multi-purpose laboratory sterilizer will simulate the operation of static and batch retorts and continuous rotary sterilizers using either steam or steam-water spray sterilization. It is equipped with thermocouple and data logging equipment to determine lethality in any product.



Sterilizer

Variable end-over-end rotation and steam pressures can simulate any product specification. Processes for acidified and low-acid foods in metal, glass, flexible and semi-rigid containers can be accurately determined.



Pasteurizer

Hot Water Pasteurizer

A batch hot water pasteurizer is available for processing acidified foods. It is equipped with thermocouple and data logging equipment to determine pasteurization values and internal pressure of acidified foods in cans, glass and PET containers.

New Product Development

Experienced scientists and production personnel can develop products and produce small runs of finished product for evaluation.

Quality Evaluation

Advanced analytical equipment is available for measuring the color, flavor, texture and nutritional content of your product. An electronic nose is available for determining food aroma.

Equipment is also available for determining the antioxidant capacity of foods using the oxygen radical absorbance capacity (ORAC) assay, and quantification of bioactive phytonutrients.

A trained descriptive analysis panel is available to assess the sensory properties of your product.



Analytical Equipment and Electronic Nose for Quality Evaluation



Sensory Evaluation