

# IN-CONTAINER THERMAL PROCESSING SKILLS





## October 30 | November 3 - 2023

### **Microbiology and Sterilization Concepts**

Thermobacteriology
Canned Food Spoilage
Heat Resistance (D, z, and Fo values)

#### **Retorts and Temperature Distribution**

Heat Transfer Concepts Retort Systems Overview Temperature Distribution TC placement, Data Evaluation Calibration, Instrumentation

#### **Heat Penetration and Critical Factors**

Product and Retort-related Critical Factors HP Strategies for Different Retorts Calibration, Instrumentation TC placement, Data Evaluation

#### **Process Calculation Methods**

General Method
Ball Formula Method
Heating Factor Development
Process Calculation
Lethality Calculation
NumeriCAL™

Overview of this advanced Method

#### **Process Deviations**

Approach, consideration and evaluation of thermal process deviations.

#### **Regulatory Overview**

#### THIS COURSE INCLUDES HANDS-ON PILOT PLANT EXPERIENCE

Review HP procedures and then, with your team, design and conduct a complete heat penetration study in the Process Technologies Laboratory Pilot Plant. Instrument containers and collect data. Evaluate data and then compare results to those of other teams.

#### Contact:

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**Course Instructors:** JBT is an FDA and USDA recognized thermal process authority. Our staff has over 180 years of collective experience. Staff teaching this course includes: Karen Brown, Senior Research Engineer Terry Heyliger, Thermal Processing Consultant

**Course Tuition:** \$4,000 per student. Register before September, 2023 and receive a \$300 reduction! Lunches, refreshments and course materials provided.