

Better Process Control School

For Managers and Supervisors of Food Processing Operations
August 6-9, 2013

The Cooperative Extension Service of the University of Hawai'i at Mānoa is sponsoring a Better Process Control School. The University of Hawai'i at Mānoa is approved by the Commissioner of the Food and Drug Administration (FDA) to present these required courses of instruction.

Who Are Required to Attend

The Federal FDA's Good Manufacturing Practices Regulation entitled, "Thermally Processed Low-Acid Food Packaged in Hermetically Sealed Containers," was published in the Federal Register on January 24, 1973 (21 CFR Part 113). Included in the regulation are these requirements:

"All operators of retorts, processing systems, and aseptic processing and packaging systems, and container closure inspectors shall be under the operating supervision of a person who has attended a school approved by the Commissioner for giving instruction in retort operations, processing systems operations, aseptic processing and packaging systems operations, and container closure inspections, and has been identified by that school as having satisfactorily completed the prescribed course of instruction."

The course also includes instruction on **acidified foods**. It will qualify **commercial operators** of plants producing acidified foods (fresh packed pickles, acidified peppers, pickled eggs, salsa, etc.) to meet the requirements of the umbrella GMP and the specific GMP for acidified foods (21 CFR, Part 114). Included as acidified foods are foods packed under "California's pH Control" regulation and includes such products as artichoke hearts, zucchini in tomato sauce, canned peppers, and other such canned foods.

On December 19, 1986, the U.S. Department of Agriculture's (USDA) Food Safety and Inspection Service (FSIS) promulgated comprehensive regulations for canning meat (9 CFR, Part 318.300) and poultry (9 CFR, Part 381.300) food products, following the general pattern of the FDA regulations. The FSIS regulations also contain provisions for employee training. A successful completion of the *Better Process Control School* is deemed by FSIS to meet the requirements for this training.

Who Else May Attend

The U.S. regulations promulgated for thermally processed low-acid and acidified foods are some of the strictest in the world. The safety of such food products depends on understanding the importance of meeting these regulations. Application of the principles and practices covered in these regulations in the manufacture of other food products, such as **acid foods** (e.g., fruit juices, jams, jellies), **refrigerated low-acid** and **acidified products** (e.g., chili pepper water, lau lau, pasta, sauces, salsa), and those that are **naturally fermented** (e.g., poi, some milk products) only serves to increase the safety of these foods. Therefore, the *Better Process Control School* is not only for *canners*. The School is open and recommended to processing personnel from **high-acid** food plants, **refrigerated food** processing systems, **meat and poultry** operations, inspectors from the **regulatory agencies** of the food processing industry, food industry personnel in **management, marketing, sales**, and especially those who are in the **export/import** business. These persons are urged to attend the *Better Process Control School* to know how to reduce risks in their specific food operations. A science or technical degree is helpful but is NOT a prerequisite for successful certification.

Definition of Operating Supervisor

By definition, an "*operating supervisor*" is a person who is in the plant at the time the low-acid canned product is packed and processed. The operating supervisor is responsible for the use of adequate time and temperature processes for rendering the product commercially sterile and for proper record keeping and control programs which will detect deviations from safe operating procedures. The operating supervisor for evaluation of container closures must ensure that assigned inspectors are making visual and tear-down evaluations of double seams at proper intervals and that all observations and measurements are properly recorded.

The operating supervisor for thermal processing and container closure evaluation may be the same person. However, each operation during each hour of plant operation must be under the supervision of a person who has been certified as having satisfactorily completed the approved course of instruction. In determining the number of person/s to be certified, company management must consider the number of operating shifts per day, vacations, sick leave replacements, and other situations such as promotions and transfer of certified supervisor personnel.

Definition of Commercial Processors

The Regulation covers all commercial processors of low-acid foods for human and animal consumption. A commercial processor is defined as "*any person engaged in commercial, custom, and so-called sportsman processing or institutional (church, school, penal or other organization) processing of food.*"

Definition of "Low-Acid Food"

A "low-acid food" is "any food other than alcoholic beverages, with a finished equilibrium pH value greater than 4.6 and a water activity greater than 0.85, and also includes any normally low-acid fruits, vegetables or vegetable products, which for the purpose of thermal processing the pH value is reduced by acidification."

Certificates

The University of Hawai'i at Mānoa will award certificates to those who attend all the sessions and satisfactorily complete the course of instruction. The certificates will list the subjects taken and passed, and will be sent to the designated mailing addresses approximately 4-6 weeks after the course of instruction.

Registration for the BPC School

Deadline for receiving the registration fee is **July 23, 2013**. If received before the deadline, registration fee is \$650 per person. After the deadline, registration fee is \$700 per person. The fee includes the cost of instruction, use of facilities, morning and afternoon snacks for each day of the course, all course materials, and a textbook that becomes the property of the registrant. Lodging and meals are not included.

Please complete and return the attached enrollment application with the fee to me at the address given below. Since the schedule is hectic, text and other materials will be sent out **before** the course date so that you may be able to study beforehand. If we do not receive your registration by the deadline, you still may elect to register by phone (808-956-6564) or fax (808)-956-3894 if space is available. However, the text will be given to you during registration instead.

Reading Proficiency

English will be the medium of instruction. No translation assistance will be available.

Course of Instruction and Examinations

This *FDA-approved* School will consist of lectures, discussions, demonstrations, and examinations held on the campus of the University of Hawai'i at Mānoa. There will be a break after each exam.

Tuesday, August 6, 2013 (7:15 am–5:00 pm)

- A. Microbiology of Thermally Processed Foods
- B. Principles of Acidified Foods
- C. Aseptic Processing and Packaging Systems
- D. Principles of Thermal Processing

Wednesday, August 7, 2013 (7:15 am–5:00 pm)

- E. Principles of Food Plant Sanitation
- F. Food Container Handling
- G. Records and Recordkeeping
- H. Equipment, Instrumentation & Operation for Thermal Processing Systems

Thursday, August 8, 2013 (7:15 am–5:00 pm)

- I. Still Steam Retorts
- J. Still Retorts Processing with Overpressure
- K. Continuous Rotary Retorts
- L. Batch Agitating Retorts

Friday, August 9, 2013 (7:15 am–5:00 pm)

- M. Hydrostatic Retorts
- N. Closures for Double Seamed Metal and Plastic Containers
- O. Closures for Glass Containers
- P. Flexible and Semirigid Containers

A participant desiring certification as a supervisor of a thermal processing system or systems must attend the lectures and satisfactorily pass the examinations in subjects A, D, E, F, G, H, and I plus any other system for which the participant needs certification on under subjects J, K, L, M, C, or B.

A participant desiring certification as a supervisor of container closure operations must attend the lectures and satisfactorily pass the examinations in subjects A, D, E, F, G, and H, plus N, O, and/or P, or B depending on the type of closure to be inspected.

A participant desiring certification as a supervisor of acidified food processing systems must attend the lectures and satisfactorily pass the examinations in subjects A, B, D, E, F, G, and H.

Program Venue

The BPCS will be conducted in St. John 10 A&B of the University of Hawai'i at Mānoa (3190 Maile Way corner of East-West Road (<http://manoa.hawaii.edu/campusmap/>) There are limited pay-to-park green stalls near St. John at \$16/day (http://hawaii.edu/parking/resources/MapFiles/visitor_kingmap.pdf). Car pooling is advised. For disability accommodations, please contact me by the registration deadline.

COOPERATIVE EXTENSION SERVICE, FOOD TECHNOLOGY PROGRAM/GMA/FDA Better Process Control School

August 6-9, 2013

*For Managers, Supervisors, and Inspectors
of Food Processing Operations*

NAME OF PARTICIPANT/S _____ COMPANY _____

ADDRESS _____ CITY _____ STATE _____

ZIP _____ TELEPHONE _____ E-MAIL _____ FAX _____

Registration fee:
US \$650/person
(up to July 23, 2013)
US \$700/person
(after July 23, 2013)

**Meal Restrictions
(please check):**
 Food Allergy—
please specify _____

Vegetarian meal preferred

For credit card payments , please call Dr. Saulo's Assistant at 808 956 8588.

For check/money orders/bank draft payments, please make payable to RCUH Project #0001139 and mail to Dr. Aurora A Saulo, Extension Specialist in Food Technology, University of Hawaii, 3190 Maile Way, St John 102, Honolulu, HI 96822 USA. Kindly email Dr Saulo at aurora@hawaii.edu that your check is in the mail.

The University of Hawai'i at Mānoa is an equal opportunity/affirmative action institution is committed to a policy of nondiscrimination on the basis of race, sex, age religion, color, national origin, ancestry, disability, marital status, arrest and court record, sexual orientation, and veteran status. This policy covers admission and access to, and participation, treatment and employment in the University's programs, activities, and services. Sexual harassment is prohibited under this policy. UHM recognizes its obligation to provide program accessibility for persons with disabilities. Contact the KOKUA (disabled student services) Program to obtain information as to the existence and location of services, activities, and facilities that are accessible to and usable by persons with disabilities: 956-7511(V/T).

Aurora A. Saulo

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Fax: 808-956-3894
e-mail: aurora@hawaii.edu

Cancellation Policy

Deadline for cancellation is **July 23, 2013**. BPCS cancellations should be made in writing. All cancellations will entail the return of all materials and a handling fee of \$50 per registration. If registration materials are not received at UHM by the deadline or within two weeks of written cancellation, there will be a handling fee of \$150 per packet. Cancellations received after the deadline are subject to the entire tuition charge.

Questions regarding program content or certification requirements should be directed to me.

Housing

All registrants will be responsible for their own housing arrangements. Very attractive excursion fares are usually available. Prices are competitive with most domestic travel on the U.S. Mainland. Please inquire from your travel agent.

Please contact me by the registration deadline for disability accommodations.
Daytime temperatures average in the mid 80s Fahrenheit with lows in the 70s. Summer wear, such as shorts and t-shirts, are acceptable in most public areas. It is recommended, however, to bring a **sweater** or a **light jacket** to wear in the conference rooms.

Dr. Aurora Saulo
University of Hawai'i at Mānoa
College of Tropical Agriculture & Human Resources
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Cooperative Extension Service
College of Tropical Agriculture & Human Resources
University of Hawai'i at Mānoa



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For Managers & Supervisors of Food Processing Operations

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University of Hawaii at Manoa
3190 Maile Way, St. John 10A&B
Honolulu, Hawai'i, 96822

Instructors:
Dr. Aurora A. Saulo

sponsored by the:
**College of Tropical Agriculture & Human Resources (CTAHR)
University of Hawai'i at Mānoa
Cooperative Extension Service
Food Technology Program**

in cooperation with the:
GMA Science & Education Foundat
U.S. Food and Drug Administration



UHM/FDA/GMA BETTER PROCESS CONTROL SCHOOL SCHEDULE

August 6-9, 2013

St. John 10 A&B, University of Hawaii

Principal Instructor: Dr. Aurora A. Saulo

TIME	TOPIC	GUEST SPEAKER/AFFILIATION
	Day 1 (7:15 a.m. - 5:00 p.m.)	
7:15- 7:30	Registration	
7:30- 7:45	Welcome Address and Introductory Remarks	
7:45- 8:15	LACF/AF Regulations	FDA
8:15- 8:45	The Botulism Story	
* 8:45-10:45	Microbiology of Thermally Processed Foods	
* 11:15-12:30	Acidified Foods	
Lunch		
* 1:30- 3:00	Aseptic Processing and Packaging Systems	
* 3:30- 5:00	Principles of Thermal Processing	
	Day 2 (7:30 a.m. - 5:00 p.m.)	
* 7:30- 9:30	Food Plant Sanitation	
* 10:00-12:00	Food Container Handling	
Lunch		
* 1:00- 2:30	Records and Recordkeeping	
* 3:00- 4:30	Equipment, Instrumentation, & Operation for Thermal Processing Systems	
	Day 3 (7:30 a.m. - 5:00 p.m.)	
	<i>Still Retorts:</i>	
* 7:30- 9:30	1. Steam	
* 10:00-12:00	2. Processing with Overpressure	
Lunch		
	<i>Agitating Retorts:</i>	
* 1:00- 2:30	1. Continuous Rotary	
* 3:00- 4:30	2. Batch	
	Day 4 (7:30 a.m. - 5:00 p.m.)	
* 7:30- 9:30	Hydrostatic Retorts	
	<i>Container Closure Evaluation:</i>	
* 10:00-12:00	1. Seamed Metal & Plastic Containers	
Lunch		
* 1:00- 2:30	2. Glass Containers	
* 3:00- 4:30	3. Flexible & Semi-Rigid Containers	
5:00	Course Evaluation, Q&A, inquiries	

*The following 15 minutes after this lecture period are allotted for private review **and** examination. There is an additional 15-minute break after each examination. Lectures will start on time.