DATE: August 26, 2014  
TO: Dairy Processors, HR Personnel and Others Interested in Dairy Processing  
FROM: Steven C. Murphy, Sr. Extension Associate  
RE: HTST Pasteurizer Operator Workshop, October 14-16, 2014

Cornell University’s Department of Food Science in collaboration with NY State Department of Agriculture and Markets, Division of Milk Control, is again offering a High Temperature Short Time (HTST) Pasteurizer Operator Workshop, October 14-16, 2014. The program will be held in the New Food Science Conference Center, 148 Stocking Hall on the Cornell University Campus in Ithaca, NY. It begins 9:15 AM on Tuesday, October 14 and will end by 1:00 PM on Thursday, October 16.

This workshop is designed for pasteurizer operators, but should be beneficial to all involved with milk pasteurization, including production, QA/QC & maintenance personnel. The course is instructed by industry experts and representatives from NYS Agriculture & Markets and provides an overview of the design, operation, cleaning and maintenance of HTST systems. All required regulatory tests for HTST pasteurizers will be discussed and/or presented in a hands-on format to meet the training requirements for performing HTST system testing under the NY State Broken Seal Policy. Information on HHST/UP systems will be covered, as warranted. Background in dairy microbiology, product safety & quality will also be provided. A complete program follows.

PRE-REGISTRATION IS REQUIRED. Enrollment is limited to 35 participants on a first-come, first-serve basis; please send your registration as soon as possible. The fee is $400.00 per person for NY Companies; for companies outside New York State the fee is $480.00. Late fees apply. Materials, breaks and lunch (October 14 & 15 only) are included. Due to space limitations, only 2 from each company location will be accepted. Please note that Cornell University is moving to Credit Card payment only and on-line registration. For those with difficulties paying on-line, payment by check will be accepted until the end of 2014. On-line registration requires that each attendee complete the form.

To Register On-Line, Go To: [http://dairyextension.foodscience.cornell.edu/content/htst-pasteurizer-workshop-october-14-16-2014](http://dairyextension.foodscience.cornell.edu/content/htst-pasteurizer-workshop-october-14-16-2014)

1. Fill in all required information (to be done separately for each attendee) and click on “submit.”
2. If successfully submitted, a confirmation screen will display providing payment information.
3. To pay on-line, click on the Credit Card payment link, fill in all required fields and hit “process.”
4. You should receive a receipt of payment by e-mail within minutes.
5. Your full registration will be confirmed and you will receive specific course information prior to the workshop by e-mail from the Cornell Extension Staff. Please direct all questions on your registration to Janene Lucia (jgg3@cornell.edu).

CANCELLATIONS: No refunds can be given if not cancelled by COB October 6, 2014. Substitutions are accepted at any time.

A listing of hotels, Cornell parking permit information, directions and area maps are included with this mailing.

The course will be held in the Food Science Conference Center, Room 148 Stocking Hall on the Cornell University Campus in Ithaca, NY.

Please call Steve (607-255-2893) or Janene Lucia (607-255-2893) if you have questions.
**PROGRAM DRAFT**

**Tuesday, October 14**

9:00 am  Registration & Coffee (*please sign in on arrival*)

9:15 am  Welcome, goals and objectives  
*Hosts: Cornell University  ...............  NYS Agriculture & Markets*  
Steve Murphy  
Becca Durant

9:30 am  Program Review: Pre-Test  
*Staff*

9:45 am  Why Pasteurize: Basics of Dairy Microbiology & Product Quality  
Steve Murphy  
Cornell University

10:45 am  BREAK

11:00 am  Why Pasteurize: Product Safety  
Rob Ralyea  
Cornell University

11:30 am  Equipment System Design & Control  
Bob Price  
Seiberling Associates, Inc.

12:15 pm  LUNCH – Provided

1:00 pm  Equipment System Design & Control (continued)  
Bob Price, Seiberling Assoc.

2:30 pm  BREAK

2:45 pm  HTST Recording Charts; Exercise and Review  
Becca Durant  
Vickie Pedersen  
NYS Agriculture & Markets

3:45 pm  HTST Instrumentation for Control  
Gary Ratajczak  
Anderson Instrument Co.

5:15 pm  End of Session

**Wednesday, October 15**

8:00 am  Coffee & Questions

8:15 am  NYS Requirements for Operating with a Broken Regulatory Seal; Review of Regulatory Tests for HTST  
Becca Durant  
Oscar Cox  
NYS Agriculture & Markets

10:00 am  BREAK

10:15 am  HTST Testing: Demonstrations & Hands-On  
Breakout Sessions

Participants will rotate in assigned groups through 5 stations set up to demonstrate regulatory requirements and HTST testing procedures with hands-on participation.

*Breakout sessions described on the next page:*
Wednesday, October 15 (continued)

10:15 am Breakout Session 1

A. Safety Thermal Limit Recording (STLR) Device
   - accuracy; cut-in/cut-out; event pen/flow meter alarms; chart requirements; system set-up and calibration procedures (Anderson 9900 STLR)
   Gary Ratajczak
   Anderson Instrument Co.

B. HTST Holding Time & Flow Rates**
   - salt test; holding tube slope; and can fill; HTST system operation run & overview
   Rob Ralyea, Cornell U.
   Joanne Lawton, NYSDAM
   ** See Note Below

C. Safety Thermal Limit Recording (STLR) Device
   - thermometric response; electronic magnetic interference; chart requirements & testing with mag-flow recording parameters; system set-up, pen-lift adjustments/functions and calibration procedures (ABB STLR)
   Vickie Pedersen
   NYS Agriculture & Markets
   Grant Fine
   ABB, Inc.

D. Flow Diversion Device - Valve Testing
   - leak detection; valve seat control; device assembly; response time; time delay
   Oscar Cox
   NYS Agriculture & Markets
   Bob Harrington, Technical Support

E. Pressure Differential & DART Thermometers
   - testing pressure sensors; calibration; inter-wiring; digital reference thermometer overview
   Bruce Krohn
   Anderson Instrument Co.

11:15 am Breakout Session 2 – Group Switch

12:15 pm LUNCH – Provided

1:15 pm Breakout Session 3 – Group Switch

2:15 pm Breakout Session 4 – Group Switch

3:15 pm BREAK

3:30 pm Breakout Session 5 – Group Switch

** Station B

UP/UHT/HHST – Sequence Logic Demo for Group(s) with personnel from UP/UHT/HHST

Becca Durant
NYS Agriculture & Markets

Thursday, October 16

8:15 am Coffee and Questions

8:30 am NYS Broken Seal Policy Review; Phosphatase Testing and Sampling - Regulatory Requirements
   Joanne Lawton, NYSA&M
   Steve Murphy, Cornell U.

9:00 am Cleaning & Sanitizing HTST and Product Distribution Systems
   Dana Lively
   Ecolab, Food & Beverage

10:15 am BREAK

10:30 am Maintenance of HTST Systems
   Jim McFadden
   Morrisville State College

11:15 am Program Review: Post-Test
   Staff

12:00 am Review/Q & A/Certificate Distribution & Adjourn
   Staff