TO: Advanced Making Workshop

FROM: Robert Ralyea, Sr. Extension Associate

RE: Advanced Cheese Making Workshop, October 21-23, 2014

Cornell University’s Department of Food Science is offering an Advanced Cheese Making Workshop on Tuesday –Thurs., October 21-23, 2014. The program will be held in the Stocking Hall Conference Center-Room 148 on the Cornell University Campus in Ithaca, NY.

Please see the accompanying agenda for course details. The deadline to register is Monday, October 6th. Once your registration and payment have been received, you will receive an e-mail confirmation.

To Register On-Line, Go To:
http://dairyextension.foodscience.cornell.edu/content/advanced-cheese-making-workshop-october-21-23-2014

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 13, 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 Rob Ralyea (607-255-2893) course questions. For questions regarding registration/payment, contact Janene Lucia (jgg3@cornell.edu) or Louise Felker (lmf226@cornell.edu)
**Advanced Cheese Making-Grading Workshop**  
October 21-23, 2014  
Conference Center, Stocking Hall  
Cornell University, Ithaca, NY

<table>
<thead>
<tr>
<th>Tuesday, October 21</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 – 9:00</td>
<td>Pre-Test/Welcome/General Course Overview</td>
<td>Rob Ralyea</td>
</tr>
<tr>
<td>9:00-10:00</td>
<td>Food Safety – Challenges/Concerns in Cheese Processing</td>
<td>Martin Wiedmann</td>
</tr>
<tr>
<td>10:00 – 10:15</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>10:30 – 12:00</td>
<td>Complex Chemistry of Cheese Making</td>
<td>Aljosa (Al) Trmcic</td>
</tr>
<tr>
<td>12:00 – 1:00</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>1:00 – 2:00</td>
<td>Complex Chemistry of Cheese Making (cont.)</td>
<td>Aljosa (Al) Trmcic</td>
</tr>
<tr>
<td>2:00 – 4:00</td>
<td>Advanced Cheese Culture Microbiology</td>
<td>Rebecca Hohlstein</td>
</tr>
</tbody>
</table>

**Wednesday, October 22**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 9:00</td>
<td>The Six Cheese Styles</td>
</tr>
</tbody>
</table>

**I – Cheese Making (Vat side) – estimate 5 – 6 hours**  
*Varieties Produced:* Gouda

This exercise is HANDS-ON for the course attendees. Experienced cheese makers and staff will guide each group through the full process of making the two varieties, side by side. Bring suitable attire for cheese making on this day. This will include:

A. ACCURATE and Functional Record Keeping  
B. Pasteurization vs. Raw or Thermalized Milk  
C. Ripening the milk with cultures (Purpose, observations, adjustments)  
D. Setting the Vat (coagulant selection, action, volume, types, issues and adjustments)  
E. Cutting the Coagulum and Curd Formation (Critical points, adjustments, potential issues and considerations)  
F. Fore work (Description of the step, when to use it and why)  
G. Cooking (Critical issues, temperatures)  
H. Dipping the curd (Critical issues, observations, and techniques)  
I. To pre-press or not (how to use the same curd to get different cheeses, critical issues and observations)  
J. Stretching (Mozzarella)  
K. Mould Pressing (critical issues, when to press and why, acid development and related subtleties)  
L. Brining (critical issues, brine quality and composition)  
M. Curing – (critical issues and techniques, observations and considerations)
Wednesday, Oct. 22 Cont’d.

II – Classroom Discussion – After-Action Review – Round Table Discussion

   A. General Discussion on Cheese Making (History, Scope, etc.)
   B. Milk Quality, Treatment and Components
   C. Starter Cultures
   D. Coagulant
   E. Technique
   F. Brining and Curing
   G. Record Keeping and Observations
   H. Sanitation

III - Summary and questions

Thursday, October 23

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 9:30</td>
<td>Advanced Cheese Problems and Defects</td>
<td>Steve Funk</td>
</tr>
<tr>
<td></td>
<td>Break</td>
<td>DSM Food Specialties</td>
</tr>
<tr>
<td>9:45 - 11:00</td>
<td>New Technologies – Separation/Membrane Technologies</td>
<td>Bruce Blanchard</td>
</tr>
<tr>
<td>11:00-11:15</td>
<td>Break</td>
<td>GEA</td>
</tr>
<tr>
<td>11:15-12:30</td>
<td>Affinage</td>
<td>Brian Ralph</td>
</tr>
<tr>
<td>12:30-1:30</td>
<td>Written Examination</td>
<td>Murray’s Cheese</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff</td>
</tr>
</tbody>
</table>

* * * * * * * * * * * * * * * * * * * *

Course Instructors:

Brian Bailey, Yancey’s Fancy, Steve Funk, DSM, Rebecca Hohlstein, Chr. Hansen, Inc.
Rob Ralyea, Cornell University, Brian Ralph, Murray’s Cheese, Aljosa (Al) Trmcic, Cornell University, and Martin Wiedmann, Cornell University