CERTIFIED MILK INSPECTORS (CMI) TRAINING COURSE
A Required Course for New CMI’s in New York State*

July 21-24, 2014
Food Science Conference Center, Room 148 Stocking Hall
Cornell University
Ithaca, New York 14853

Draft Program

Monday, July 21
12:30 pm  Welcome: CMI Roles & Program Overview – Steve Murphy
1:00 pm  Composition of Milk – S. Murphy
1:45 pm Basic Dairy Bacteriology; Definitions & Characterization – S. Murphy
2:30 pm  BREAK (refreshments provided)
2:45 pm Basic Dairy Bacteriology: Methods & Standards – S. Murphy
3:15 pm Raw Milk Pathogens & Risks – Rob Ralyea
4:00 pm  Mastitis, Somatic Cells & QMPS Program – Frank Welcome/Jessica Scillieri-Smith
5:00 pm  Adjourn

Tuesday, July 22
7:45 am  Questions & Coffee
8:00 am  Cleaning/Sanitizing Basics – R. Ralyea
8:45 am  Farm Milk Systems - Designed for Cleaning – Rick Watters
9:30 am  BREAK (refreshments provided)
9:45 am  Farm Milk Systems - Designed for Cleaning – Rick Watters
10:15 am  Trouble-Shooting High Bacteria Counts – Staff
11:00 am  Drug Residue Testing; Other Raw Milk Tests – S. Murphy
11:30 am  Milk Flavor Clinic – S. Murphy/Nancy Carey
12:15 pm  LUNCH (on your own)
1:15 pm  Introduction & Review of Milk Sanitation Regulations – R. Hinz/C. Martin
2:45 pm  BREAK (refreshments provided)
3:00 pm  Review of Milk Sanitation Regulations, cont. – R. Hinz/C. Martin
4:45 pm  Review /Questions - Adjourn

Wednesday, July 23
7:45 am  Questions & Coffee
8:00 am  Review of Milk Sanitation Regulations – R. Hinz/C. Martin
10:00 am  BREAK (refreshments provided)
10:15 am  Review of Milk Sanitation Regulations, cont. – R. Hinz/C. Martin
12:00 pm  LUNCH (on your own)
1:00 pm  Review of Milk Sanitation Regulations, cont. – R. Hinz/C. Martin
3:00 pm  BREAK (refreshments provided)
3:15 pm  Quality Control Records – R. Hinz/C. Martin
4:45 pm  Review /Questions - Adjourn

Thursday, July 24
8:00 am  Review of Milk Regulations – Drug Use/Storage – R. Hinz/C. Martin
10:00 am  Farm Tour Inspections (Depart from Stocking Hall)
1:00 pm  Adjourn Questions and Answers/Review

Instructors:
Rodney Hinz & Chad Martin – NYS Department of Agriculture & Markets
Steve Murphy, Rob Ralyea, Nancy Carey – Cornell University, Department of Food Science
Frank Welcome/Rick Watters/ Jessica Scillieri-Smith – Quality Milk Production Services (QMPS)

*This Training Course is Required for all New Certified Milk Inspectors in NY State but is open to all interested parties; including current CMI’s who desire a refresher and update.
Cornell Dairy Foods Extension
Program Syllabus – NY State Agriculture & Markets Certified Milk Inspectors (CMI) School

Instructors:
Rodney Hinz, Dairy Products Specialist II, NYS Agriculture & Markets: Rodney.Hinz@agriculture.ny.gov
Chad Martin, Dairy Products Specialist I, NYS Agriculture & Markets: Chad.Martin@agriculture.ny.gov
Steve Murphy, Senior Extension Associate; e-mail: scm4@cornell.edu; phone: (607) 255-2893
Robert Ralyea, Senior Extension Associate; e-mail: rdr10@cornell.edu; phone: (607) 255-7643
Frank Welcome/Jessica Scillieri-Smith/Rick Watters, QMPS; http://ahdc.vet.cornell.edu/sects/QMPS

Additional instructors and contributors to this course may include guest instructors from industry.

Course Contact:
Janene Lucia; e-mail: jgg3@cornell.edu; phone: (607) 255-2892

Overview:
This course covers the basics of raw milk quality and safety and the specific regulatory and inspection
requirements for dairy producers under the Grade “A” milk program as outlined in the Pasteurized Milk
Ordinance (PMO). It is required for all NY State Certified Milk Inspectors (CMI) who as industry employees,
represent NY State regulatory in inspecting dairy farms under the requirements of the PMO. In addition to this
course, NY-CMI applicants must meet one of the three criteria for education and/or work experience listed
below:

1. An associate degree or higher in an agricultural field and at least one month of supervised field
   experience in dairy farm inspection.
2. A minimum of six months experience in dairy farm inspection.
3. At least one year of experience in the dairy industry and at least one month of supervised field experience
   in dairy farm inspection.

This course must be completed within one year of obtaining the inspectors certificate. For all CMIs, an annual
educational update is also required. While designed for CMIs, this course may be of value to producers,
laboratory personnel and others involved in farm milk quality, sanitation and safety.

Learning Outcomes:
This course will provide attendees with information under the following headings that will assist them in their
roles as Certified Milk Inspectors with the objective that they will:
Overview of Basic Dairy Microbiology/Safety/Quality
- Be able to define milk in terms of its composition
- Know the basic concepts of microbial growth and contamination as it pertains to raw producer milk and
  be able to understand and interpret quality tests used to assess producer raw milk
- Learn the causes and outcomes of mastitis in dairy animals and the impact of associated raw milk
  Somatic Cell Counts on heard health and milk quality
- Understand food safety concerns and pathogens associated with raw milk and farm production methods.

Detailed Review of Milk Sanitation Requirements
- Know the sanitation and inspection requirements for dairy producers shipping milk under the PMO
  Grade “A” Milk Program.
- Understand the sampling and testing requirements for meeting the standards as specified under Section
  6 of the PMO and the related actions when requirements are not met.
- Develop skills in finding sources of high bacteria counts and other related milk quality and safety issues.
- Learn the drug storage and usage requirements for farms under the Grade “A” Milk Program

Evaluation:
In order to become a Certified Milk Inspector, persons must complete this course and meet the requirements
outlined above and pass a test administered by NY State Agriculture & Markets.
### DAIRY FARM INSPECTION REPORT

<table>
<thead>
<tr>
<th>NAME AND LOCATION OF DAIRY FARM</th>
<th>INSPECTING AGENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>POUNDS SOLD DAILY</td>
<td>PLANT</td>
</tr>
<tr>
<td>PERMIT NO.</td>
<td></td>
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</tbody>
</table>

Inspection of your dairy farm today showed violations existing in the Items checked below. You are further notified that this inspection report serves as notification of the intent to suspend your permit if the violations noted are not in compliance at the time of the next inspection. (Refer to Sections 3 and 5 of the Grade “A” Pasteurized Milk Ordinance.)

### COWS

1. Abnormal Milk:
   - Cows secreting abnormal milk milked last or in separate equipment (a)
   - Abnormal milk properly handled and disposed of (b)
   - Proper care of abnormal milk handling equipment (c)

### MILKING BARN, STABLE, OR PARLOR

2. Construction:
   - Floors, gutters, and feed troughs of concrete or equally impervious materials; in good repair (a)
   - Walls and ceilings smooth, painted or finished adequately; in good repair; ceiling dust-tight (b)
   - Separate stalls or pens for horses, calves, and bulls; no overcrowding (c)
   - Adequate natural and/or artificial light; well distributed (d)
   - Properly ventilated (e)

### MILKHOUSE OR ROOM

5. Construction and Facilities:
   - Floors
     - Smooth; concrete or other impervious material; in good repair (a)
     - Graded to drain (b)
     - Drains trapped, if connected to sanitary system (c)
   - Walls and Ceilings
     - Approved material and finish (a)
     - Good repair (windows, doors, and hoseport included) (b)
   - Lighting and Ventilation
     - Adequate natural and/or artificial light; properly distributed (a)
     - Doors and windows closed during dusty weather (b)
     - Vents and lighting fixtures properly installed (c)
   - Miscellaneous Requirements
     - Used for milkhouse operations only; sufficient size (a)
     - No direct opening into living quarters or barn, except as permitted by Ordinance (b)
     - Liquid wastes properly disposed of (c)
     - Proper hoseport where required (d)
     - Acceptable surface under hoseport (e)
     - Suitable shelter or direct load for transport truck as required (f)

### TOILET AND WATER SUPPLY

7. Toilet:
   - Provided; conveniently located (a)
   - Constructed and operated according to Ordinance (b)
   - No evidence of human wastes about premises (c)
   - Toilet room in compliance with Ordinance (d)

8. Water Supply:
   - Constructed and operated according to Ordinance (a)
   - Complies with bacteriological standards (b)
   - No connection between safe and unsafe supplies; no improper submerged vires (c)

### UTENSILS AND EQUIPMENT

9. Construction:
   - Smooth, impervious, nonabsorbent, safe materials; easily cleanable (a)
   - In good repair; accessible for inspection (b)
   - Approved single-service articles; not reused (c)
   - Approved CIP cleaned milk pipeline system (d)

10. Cleaning:
    - Utensils and equipment clean (a)

11. Sanitization:
    - All multi-use containers and equipment subjected to approved sanitization process (Refer to Ordinance) (a)

12. Storage:
    - All multi-use containers and equipment properly stored (a)
    - Stored to assure complete drainage, where applicable (b)
    - Single-service articles properly stored (c)

### MILKING

13. Flanks, Udders, and Teats:
    - Milking done in barn, stable, or parlor (a)
    - Brushing completed before milking begun (b)
    - Flanks, bellies, udders, and tails of cows clean at time of milking; clipped when required (c)
    - Teats cleaned, treated with sanitizing solution (if required) and dried, just prior to milking (d)
    - No wet hand milking (e)

### TRANSFER/PROTECTION OF MILK

14. Protection From Contamination:
    - No overcrowding (a)
    - Product and CIP cleaning circuits separated (b)
    - Improperly handled milk discarded (c)
    - Immediate removal of milk (d)
    - Milk and equipment properly protected (e)
    - Sanitized milk surfaces not exposed to contamination (f)
    - Air under pressure of proper quality (g)

15. Drug and Chemical Control:
    - Cleaners and sanitizers properly identified (a)
    - Drug administration equipment properly handled and stored (b)
    - Drugs properly labeled (name and address) and stored (c)
    - Drugs properly labeled (directions for use, cautionary statements, active ingredient(s)) (d)
    - Drugs properly used and stored to prevent contamination of milk or milk product-contact surfaces (e)

### PERSONNEL

16. Handwashing Facilities:
    - Proper handwashing facilities convenient to milking operations (a)
    - Wash and rinse vats not used as handwashing facilities (b)

17. Personnel Cleanliness:
    - Hands washed clean and dried before milking, or performing milkinghouse functions; rewash when contaminated (a)
    - Clean outer garments worn (b)

### COOLING

18. Cooling:
    - Milk cooled to 45°F (7°C) or less within 2 hours after milking, except as permitted by Ordinance (a)
    - Recirculated cooling water from a safe source and properly protected; complies with bacteriological standards (b)
    - An acceptable recording device shall be installed and maintained when required (c)

### PEST CONTROL

19. Insect and Rodent Control:
    - Fly breeding minimized by approved manure disposal methods (Refer to Ordinance) (a)
    - Manure packs properly maintained (b)
    - All milkhouse openings effectively screened or otherwise protected; doors light and self-closing; screen doors open outward (c)
    - Milkhouse free of insects and rodents (d)
    - Approved pesticides; used properly (e)
    - Equipment and utensils not exposed to pesticide contamination (f)
    - Surroundings neat and clean; free of harborages and breeding areas (g)
    - Feed storage not attraction for birds, rodents or insects (h)

### REMARKS

NOTE: Item numbers correspond to required sanitation Items for Grade “A” raw milk for pasteurization in the Grade “A” Pasteurized Milk Ordinance.

**Date**

**Sanitarian**

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*FORM FDA 2359a (10/11) Edition*