



Innovation Center for U.S. Dairy Food Safety Committee Overview

Food Safety Committee



Strengthen manufacturing practices in all dairy processing facilities and advance science-based tools to diminish food safety risks that could compromise the reputation of the U.S. dairy industry



Innovation Center Food Safety Supporting Organizations

Innovation Center Committee



Artisan Cheese Advisory Team



Artisan Ice Cream Advisory Team



Strategic/Activation Partners

Listeria Research Consortium



Food Safety Strategies



Industrywide Sharing of Best Practices to drive continuous improvement

- Regular sharing of leading-edge and best practices via leadership group and pools of experts
- Targeted summits and expert best practice sharing groups
- Food Safety Culture Programs, Assessment, and Dashboard

Disseminate Best Practices via Training, Tools, & Guidance Documents

- Dairy Plant Food Safety & Supply Chain workshops
- Pathogen Controls Guidance Document, Traceability Guidance Document, tools/checklists
- Presentations by industry and academic experts on behalf of the IC (Conferences, Webinars)
- Share results and progress with appropriate regulatory

Support Artisan, Farmstead, and Small Dairy Manufacturers

- Tailored training classes, online training and resource websites
- Hands-on food safety plan support and free 1:1 coaching (USDA NIFA Grant)

Identify New Solutions Through Research

- Listeria Research Consortium to develop new tools and leverage academic thought leaders
- Pathogen research through NDC, utilize Dairy Research Centers to aid small/farmstead dairy processors

Innovation Center for U.S. Dairy Food Safety Resources at www.usdairy.com/foodsafety

Food Safety Resources (Small/Medium Dairy Processors)



The Innovation Center for US Dairy and our partners at ACS, NICRA, IDFA, DPC, and numerous additional dairy organizations and Universities are committed to sharing best practices to strengthen manufacturing in all dairy processing facilities and protect consumers by providing the following:

Websites

Visit www.safecheesemaking.org or www.safeicecream.org for information and resource links curated with small processors in mind. Visit www.usdairy.com/foodsafety guides, classes, and tools.

Interactive Online Training Courses



Cheesemakers
bit.ly/3vtOOyM



Ice Cream
bit.ly/36tUPOh

These online training courses were designed for small to medium size cheese, ice cream, and frozen dessert manufacturers by food safety experts from dairy processors and academia (NCSU, UConn, Cornell, UW-CDR). Each is divided into short modules that can be taken over time to fit your schedule including: the importance of food safety, hazards, control strategies, GMP's, sanitations, and environmental monitoring. These low-cost courses are free with member code from the ACS, NICRA, DPC, or the IC. You'll also find many online courses through University dairy programs including NCSU's online Environmental Monitoring course bit.ly/3t7gaCD and Cornell's online Sanitation course at bit.ly/3gSjohl

Food Safety Support & Food Safety Plan Writing Assistance

Hands-on coaching workshops and a free food safety support hotline are available across the US. Designed to provide support for small dairy producers everywhere in the US, these resources leverage experts to help you with food safety plans, implementing programs, and improving practices. Workshop participants are provided information, templates, and individual coaching as they design their personalized food safety plans. For course materials and Upcoming Workshops visit [Food Safety Plan Support](#)



Hotline Contact: Dairyfoodsafetycoach@cornell.edu 315-787-2600

Local Resources

Not sure where to start? A listing of regional resources is available on the [Regional Food Safety Training and Support](#) tab of Safecheesemaking.org and the network of coaches from the plan writing class can be also found at [Coaching Fellows](#). In addition to consultants and your local regulators, there are also experts, trouble-shooting help, and even pilot plants available through the National [Dairy Research Centers](#) and/or your local University/Extension programs.

Food Safety Resources (Small/Medium Dairy Processors)



Guidance Documents

Food safety guidance documents are available for self-study, internal training, and to check your existing programs against. These regularly updated guides are prepared for the dairy industry by dairy industry subject matter experts to share knowledge/best practices on traceability and pathogen control topics including design, sanitation, GMP's, zoning, and environmental monitoring. Download at www.usdairy.com/foodsafety or click the image below.



Pathogen Control Guidance Document



Listeria Controls



Traceability

Resources & Templates

Templates, SOP's, and commonly used forms can help you build your programs.

[Food Safety Plan Templates](#) (safeicecream.org)

[FSPCA Preventative Controls Templates](#)

[SOP's & Record Forms](#) (WQMA)

[Templates & Resources](#) (Cornell University)

[Templates](#) (safecheesemaking.org)

[Farm to Production Guidelines](#) (DPC)

In-Person Workshops [Upcoming Workshops-Innovation Center for U.S. Dairy](#)

Dairy Plant Food Safety Workshops & Supplier Food Safety Management Workshops

[Dairy Plant Food Safety Workshops](#) are in-person two-day sessions focused on in-plant pathogen controls. Participants hear from FS/Quality experts and complete small team/hands-on exercises including designing an EM program, SSOP writing, and challenging real world case studies.



The [Supplier Food Safety Management](#) tools and class are designed to help companies identify, quantify, and mitigate risks from their supply chain. Participants learn how to build a supplier program, assess risks, and employ best practices to mitigate those risks.

Food Safety Resources



Spanish-Language Food Safety Resources



The Innovation Center for U.S. Dairy food safety team provides tools and guidance for the dairy industry. Some of these key tools are now available in Spanish to help communicate food safety best practices to a broader audience. The documents available in Spanish are 1) Control of Listeria monocytogenes Guidance for the U.S. Dairy Industry, 2) Dairy Equipment Design Checklist, 3) Dairy Facility Checklist, and 4) example Sanitation Standard Operating Procedure (SSOP) – English versions at www.usdairy.com/foodsafety

- [Control De Listeria Monocytogenes Guía Para La Industria Láctea De EE. UU](#)
- [El Equipo Lácteo lista de verificación de diseño](#)
- [Lista de verificación del diseño de la instalación láctea](#)
- [Ejemplo de SOP y lista de verificación de un plan para vacacionar la inocuidad de los alimentos durante la construcción](#)

Spanish Language Sections on Artisan Resource Websites

The team has developed two Food Safety websites for Artisan, Farmstead, and small dairy processors which are hosted by ACS (Cheese focused) and IDFA (Ice Cream). Each site includes a 'Resources in Spanish section'



[Safe Cheesemaking Spanish-Language Resources](#)



[Safe Ice Cream Spanish-Language Resources](#)

University/Extension Food Safety Courses in Spanish

Cornell's [Introduction to Food Safety Principles](#) is a 4-hour course tailored to frontline processing personnel and is designed to help participants understand the basic principles of food safety in a processing plant. The benefit of using this course is to train your employees quickly, and consistently on the importance of Food Safety.

Cornell University's [Basic Dairy Science and Sanitation Workshop](#) is a 2-day course tailored to dairy processing personnel and is designed to help participants understand the basic principles of dairy science and food safety.



Food Safety Guidance Documents

Guidance for Dairy Product Enhanced Traceability

Voluntary Practices and Protocols for Strengthening the U.S. Dairy Supply Chain

Sept. 10, 2013

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CENTER FOR U.S. DAIRY.
HEALTHY PEOPLE • HEALTHY PRODUCTS • HEALTHY PLANET

U.S. DAIRY TRACEABILITY
Pinpoint and Protect

2013/2020 Traceability

2015 Listeria Controls

Control of *Listeria Monocytogenes* Guidance for the U.S. Dairy Industry



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Issued: October 15, 2015
Revised: June 16, 2017

CONTROL DE *Listeria Monocytogenes*

GUÍA PARA LA INDUSTRIA LÁCTEA DE EE. UU.



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15 de octubre de 2015

2017 Listeria Guide in Spanish

2019/2020 Pathogen Controls Guidance

CONTROLLING PATHOGENS IN DAIRY PROCESSING ENVIRONMENTS

GUIDANCE FOR THE U.S. DAIRY INDUSTRY



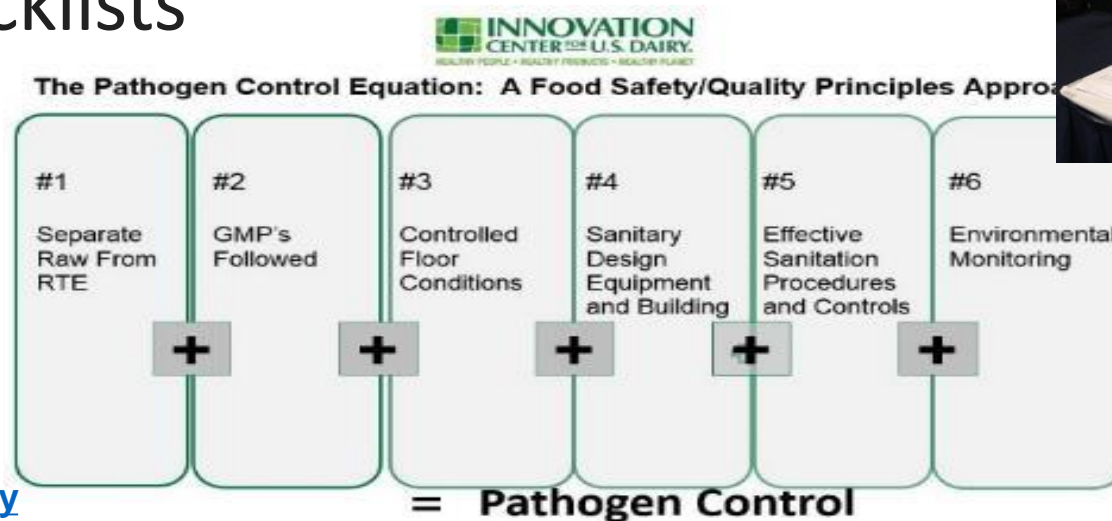
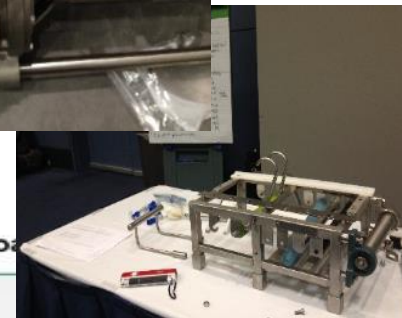
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Issued: Draft

www.usdairy.com/foodsafety

Dairy Plant Food Safety Workshop (DPFS)

- Two-day workshops
- Volunteer industry expert trainers
- Lectures, hands-on, peer learning, expert Q&A
- Started 2011, 42 sessions, 2320 trained
- Traditional and “Dry / Powders” versions
- Online tools, guides, checklists



Additional information at - www.usdairy.com/foodsafety

DPFS and Guidance Examples

1 – Separate Raw from RTE



3 Controlled Conditions and Sanitary Design

- Control Traffic Patterns
- Establish Zones and Controls
- Train Personnel
- Monitor Compliance

Fig. 2. An example of dairy plant floor plan with traffic patterns mapped and operations segregated

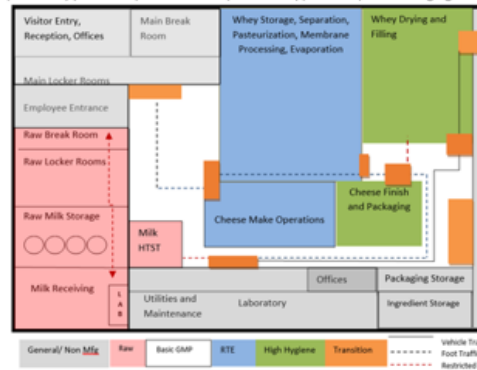


Fig. 16. Example of an exterior expansion joint that needs regular inspections



Fig. 17. Example of an interior expansion joint that needs regular inspections

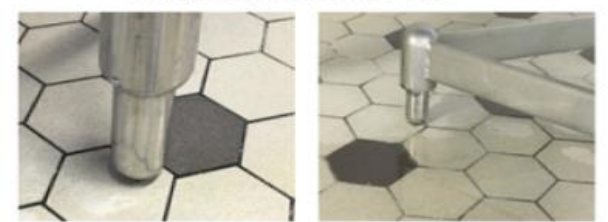


Several examples of sanitary design for both wet and dry operations

Fig. 20. Hollow square tubing not hermetically sealed (missed weld on one side of the leg)



Fig. 21. Example of adjustable ball foot design – welded or gasket to seal and avoid debris infiltration



DPFS and Guidance Examples

#4 Effective Sanitation Procedures and Controls

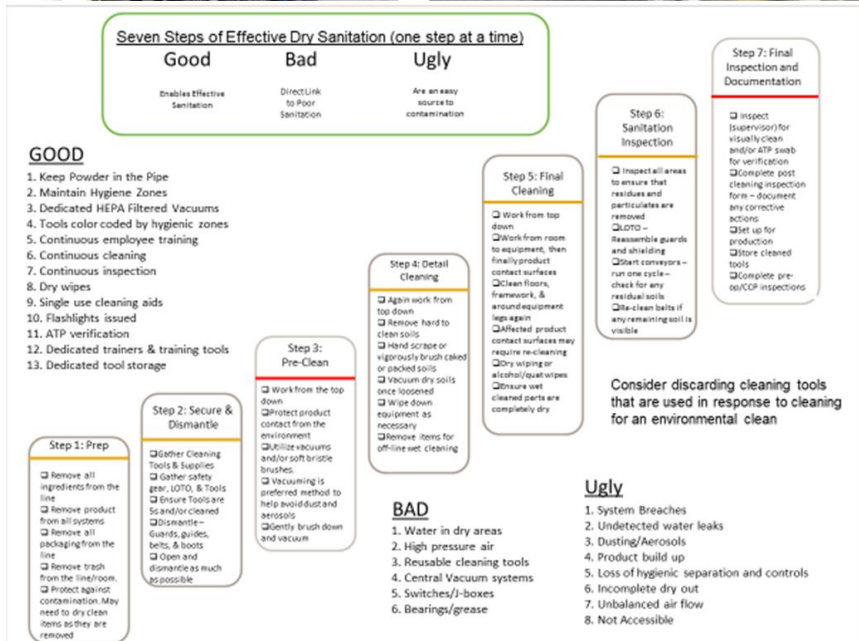
Dry Cleaning Tool Considerations

Dedicated cleaning tools in critical and high care zones may need a separate color code system from the rest of the facility. **Dedicated vacuums in each dry zone of the plant is a best practice: i.e., a separate HEPA filtered vacuum** for dryer room, powder storage room, and packaging room. The use of "hot-boxes" to store regularly used items and vacuums in dry zones helps control pathogen cross-contamination. Cycling "hot-boxes" on and off for periods of time at 130 F is common.

Fig. 29. Dedicated HEPA filtered vacuum cleaners.



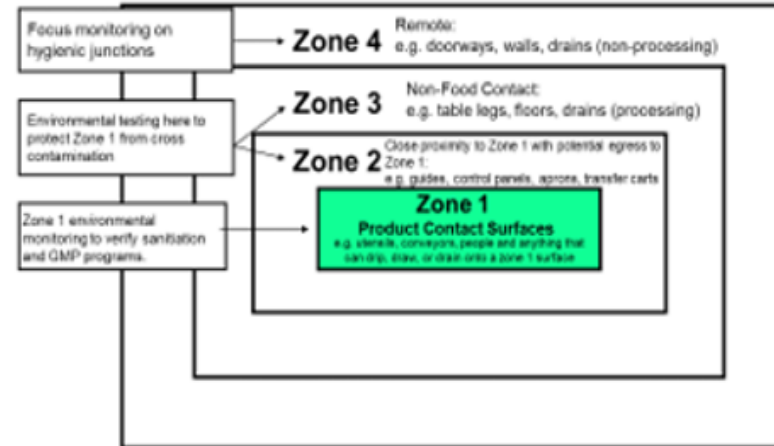
Fig. 30. Overhead pipe exterior cleaning tools.



#5 Environmental Monitoring

Zoning is a key to Environmental Monitoring for both wet and dry operations

Fig. 34. Environmental monitoring zones



REMEMBER

Raw Areas

- Covered by basic GMPs
- If raw areas are swabbed, it should be done only after sanitation to evaluate cleaning effectiveness
- Environmental Monitoring activities focus on hygienic junctions with other hygienic zones

Examples:

- Milk Receiving
- Milk Storage
- Milk HTST Room
- Raw Ingredient areas



Artisan Dairy Food Safety Platform

Deliver accessible training and tools for artisan/farmstead dairy processors

- Artisan Cheese Advisory Team
 - 2012 - 2016, 21 sessions, 750 Artisans and Regulators trained
 - Re-launched as an online cheese FS class June 2017
 - Consolidated guides and resource website www.safecheesemaking.org
 - Online training and resources www.usdairy.com/artisan
- Artisan Ice Cream Team launched 2018
 - Launched online Ice Cream FS November 2019
 - Consolidated guides and resource website www.safeicecream.org
 - Online training and resources www.usdairy.com/artisan
- Food Safety Plan writing sessions & National Support Center
 - 3 year, \$400K USDA NIFA Grant to run class nationwide
 - National FS center at Cornell www.dairyfoodsafetycoalition.com
 - Support /consulting at DairyFoodSafety@Cornell.edu

