

ENVIRONMENTAL CONTAMINANTS

What Are They?

Environmental contaminants include most adulterants that can contaminate products. Environmental contaminants such as dust, chemicals, unintended ingredients and bacteria may be introduced to a product by pests, condensate, sloppy habits and ingredients.

Why Is It A Concern?

Chemical contaminants may cause off flavours or toxic reactions. Bacterial adulteration resulting from environmental sources may lead to product spoilage and illness. Environmental contamination invariably damages the image dairy products enjoy of being safe and wholesome.

Have Consumers Complained?

Yes! The following examples have been documented:

- a boy had a severe allergic reaction to ice cream erroneously processed with peanuts instead of almonds.
- forty-eight people died after consuming Mexican-style cheese contaminated with *Listeria*. This organism was found in the plant environment but not in the raw milk supply.
- two hundred and twenty-two children became ill after consuming chocolate milk contaminated with *Yersinia*. The product was probably contaminated when mixing the chocolate into an open vat of pasteurized milk.
- one hundred and seventy-two people became ill after drinking milk contaminated with *Yersinia*. Improperly washed dairy cases were identified as the source of bacterial contamination.

Can We Prevent Environmental Contamination?

Yes. A careful and continuous review of plant conditions and practices will significantly reduce the chance of environmental contamination. Programs including the testing of incoming ingredients, isolation of food ingredients from non-food products, adequate pest control and minimizing exposure of pasteurized product and cartons to environmental contaminants will minimize potential contamination.

Programs should include:

- a) prevention of entry to plant
 - change clothes and boots
 - wash hands
 - test incoming ingredients
 - adequate pest control
 - positive air pressure in plant
- b) prevention of entry into food
 - cross connection elimination
 - separation of food/non food materials
 - cleaning and sanitizing environment
 - thoughtful design of environment.

For further information contact the Dairy Plant Specialist at Food Protection Services

604.707.2440

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