



## MILK PASTEURIZATION

### MAKING MILK SAFE

All milk sold in Canada must be pasteurized.

**Pasteurization** involves heating milk to a high temperature, then cooling it rapidly. This process destroys any pathogens in the milk, such as salmonella and E.coli, while maintaining milk's nutritional value.

Pasteurization also helps to destroy microorganisms and enzymes that reduce the quality and shelf life of milk and dairy products, making them last longer. Pasteurization was made mandatory by Health Canada in 1991,<sup>1</sup> although it was mandatory in some provinces as early as 1938.<sup>2</sup>



**In 1938, milk products were the source of 25% of all food and waterborne illnesses that were traced to sources, but now they account for less than 1% of all food and waterborne illnesses.<sup>5</sup>**



### WHAT IS "RAW" MILK?

"Raw milk" is milk from cows, goats, or sheep that has not been pasteurized.

For safety reasons, it is illegal to sell or give away raw milk or cream products in Canada, with the exception of certain raw milk cheeses.<sup>6</sup> These cheeses are manufactured and produced in a way that helps eliminate harmful bacteria that may be present in raw or unpasteurized milk.<sup>7</sup>

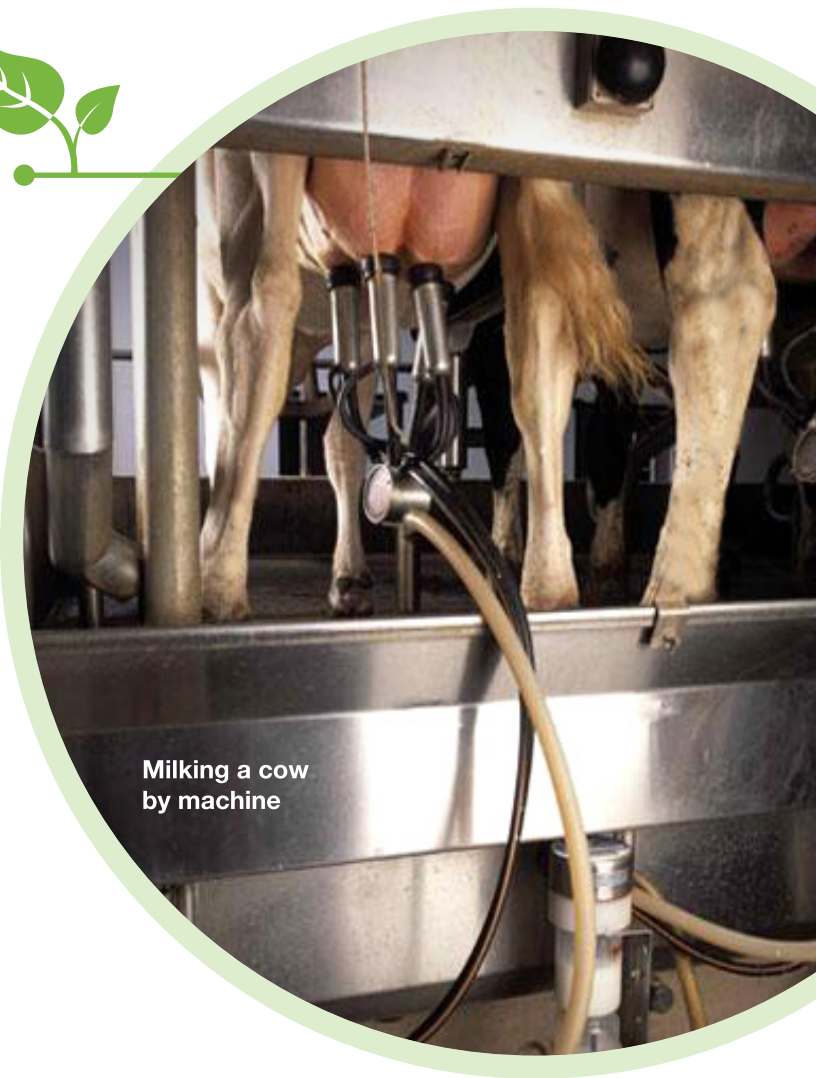
Children, pregnant women, older adults and people with weakened immune systems are most at risk from getting sick after eating unpasteurized foods.

### THANK YOU, DR. PASTEUR



French microbiologist Dr. Louis Pasteur developed pasteurization in 1862 to make milk safe from bacteria.<sup>3</sup>

Beginning in the early 1800s, the process of heating or boiling milk for health benefits was recognized as a method that reduced milk-borne illnesses such as typhoid fever, scarlet fever and diphtheria in children. These illnesses were virtually eliminated with pasteurization, in combination with improved animal care and milk handling practices on dairy farms.<sup>4</sup>



Milking a cow by machine

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## PASTEURIZED FOOD – MORE THAN MILK!



**Honey** is often pasteurized to make it last longer.



**Some cider and fruit juices** are pasteurized to destroy bacteria that may have contaminated these liquids during handling, processing and transportation.



**Pasteurized egg products** are available for making uncooked foods using raw eggs, such as eggnog, salad dressing or homemade ice cream.

Dairy farms must meet high standards of hygiene in order to keep milk safe and to keep cows and milk free from disease.<sup>9</sup>

## FROM THE FARM TO THE GROCERY STORE

At the dairy farm, cows are milked two or three times a day by machine. The milk goes directly into a large refrigerated holding tank. Approximately every other day a special refrigerated truck arrives at the farm to collect the milk which is tested for quality and antibiotics before being taken directly to the processor where it is processed into milk, cream and other milk products.<sup>10</sup>

Antibiotics are used to prevent pain and suffering in animals when they develop infections. If a cow's milk is found to contain antibiotics, the milk will be discarded until the antibiotics have passed through the cow's system.

## RAW MILK MYTHS

Pasteurization does not destroy milk nutrients, nor does the “good” bacteria in raw milk kill the “bad” bacteria.<sup>8</sup> Drinking raw milk is simply not safe!



Honey bees and honeycomb



Bulk milk tank on farm

## How is milk production regulated?

*Dairy Products Regulations*, under the *Canada Agricultural Products Act* of the Canadian Food Inspection Agency (CFIA), regulate domestic and imported dairy products in order to verify that they meet Canadian health, safety, quality and labelling standards.<sup>11</sup>

