



"Improve the economic well-being of agriculture and enrich the quality of farm family life."

Let's Talk About: *Raw Milk*

Health conscious consumers and people with food allergies frequently research food production and alternative food sources. They seek the best and safest source of nutrients. Raw milk has gained popularity with the health food movement. Supporters claim raw milk is a better source of vitamins, minerals and enzymes. Raw milk does not offer enough increased benefits to offset the risk of deadly foodborne illness that can be transferred through unpasteurized milk. It is vital consumers are aware of the risks associated with raw milk consumption.

Illinois Farm Bureau Policy

The Illinois Farm Bureau ("IFB") "supports the pasteurization of raw milk for sale to the public. We also recognize there is a segment of consumers that prefer to purchase raw, unpasteurized milk. For those farmers who sell unpasteurized milk to consumers, the following guidelines should be followed: sales occur directly from farmers – on the farm – to consumers provided they bring their own containers. No wholesalers, retailers, grocery stores or third parties are allowed to sell these products. [Lastly], Farmers receive a Grade A permit from the Illinois Department of Public Health to produce and sell raw milk." ¹

Pasteurization Process

In 1864, Louis Pasteur developed pasteurization. Pasteur developed this process to decrease bacteria in food and drinks, thus reducing cases of foodborne illness. During pasteurization, the food or drink is heated for a certain amount of time, and then rapidly cooled. Usually, the temperature is below the boiling point. Pasteurization is not the same as sterilization, a process where all microorganisms are killed. ²

To prepare milk for starter cultures in the processing of cheese, yogurt, buttermilk, or ice cream, vat pasteurization is used. During vat pasteurization, the ingredients are heated at 155° F for 30 minutes. High Temperature Short Time (HTST) pasteurization is used commonly for dairy products today. HTST pasteurization uses metal plates and hot water and heats liquids to 161°F for approximately 15 seconds. Then, the milk is rapidly cooled. ³

Legalities

In 1938, 25% of foodborne or waterborne disease outbreaks resulted from milk. ⁴ Once disease outbreaks were linked to the consumption of unpasteurized milk, public health officials began diligently developing sanctions on processing of milk. In 1924, the United States Public Health Service (USPHS) developed the *Standard Milk Ordinance* for voluntary adoption by State and Local Milk Control Agencies. "On August 10th, 1987, FDA published a final regulation mandating the pasteurization of all milk and milk products in final package form for direct human

consumption.”⁵ Today, due to widespread pasteurization, less than 1% of foodborne and waterborne disease outbreaks result from milk.⁶

Each state has its regulations for raw milk. Raw milk sales are legal in 30 states. In some states, raw milk can be sold in stores, but in other states customers must travel to the farm to buy the milk.⁷ Currently, selling raw milk across state lines is illegal.⁸

Health Claims

Supporters of raw milk claim it can fight or cure, allergies, digestive problems, eczema, autism, arthritis and learning disabilities, and that it boosts immunity.⁹ Despite these claims, “many studies have shown that pasteurization does not significantly change the nutritional value of milk and dairy products.”¹⁰ Additionally, “pasteurization does inactivate enzymes in the milk, [but] the enzymes in raw animal milk are not thought to be important to human health.”¹¹

Disease Risk

Between 1998 and 2011, 79% of disease outbreaks from dairy products originated in raw milk or cheese.¹² “Most of the illnesses were caused by *Escherichia coli*, *Campylobacter*, *Salmonella*, or *Listeria*.”¹³ The elderly, children, and pregnant women carry the highest risk of contracting these illnesses from raw milk.

Milk can be contaminated by “Cow feces coming into direct contact with the milk, infection of the cow’s udder, cow diseases, bacteria that live on the skin of cows, environment, insects, rodents, and other animal vectors, and humans cross contamination from soiled clothing or boots.”¹⁴ Hygienic procedures implemented by the farmer and healthy cows reduce the risk of contamination but does not eliminate the risk. Even farmers who routinely perform laboratory tests for bacteria that return negative cannot guarantee the safety of the raw milk.¹⁵

¹Illinois Farm Bureau. (2015). Dairy Marketing. *Policy Resolutions*. (pp.53-54). Bloomington, IL.

² Peck, Kayla. “What is pasteurization and how does it work?” *UNC Biology Pen Pal Program*. 1 May 2013. Web. 27 July 2015.

³ International Dairy Foods Association. “Pasteurization”. Web. 27 July 2015.

⁴ Grade “A” Pasteurized Milk Ordinance. 2009 Revision. U.S. Department of Health and human Services, Public Health Service, Food and Drug Administration.

⁵ Weisbecker, Andy. “A Legal History of Raw Milk in the United States.” *Journal of Environmental Health*. April 2007. Web. 27 July 2015.

⁶ Grade “A” Pasteurized Milk Ordinance. 2009 Revision. U.S. Department of Health and human Services, Public Health Service, Food and Drug Administration.

⁷ Wendle, Abby. “Why Some States Want To Legalize Raw Milk Sales.” *NPR*. 20 February 2015. Web. 27 July 2015.

⁸ Weisbecker, Andy. “A Legal History of Raw Milk in the United States.” *Journal of Environmental Health*. April 2007. Web. 27 July 2015.

⁹ Nelson, Jennifer, K. & Zeratsky, Katherine. “Raw milk debate heats up.” *Mayo Clinic Nutrition-wise blog*. 23 April 2010. Web. 25 July 2015.

¹⁰ Centers for Disease Control and Prevention. “Raw Milk Questions and Answers.” 20 February 2015. Web. 27 July 2015.

¹¹ Centers for Disease Control and Prevention. “Raw Milk Questions and Answers.” 20 February 2015. Web. 27 July 2015.

¹² Centers for Disease Control and Prevention. “Raw Milk Questions and Answers.” 20 February 2015. Web. 27 July 2015.

¹³ Centers for Disease Control and Prevention. “Raw Milk Questions and Answers.” 20 February 2015. Web. 27 July 2015.

¹⁴ Centers for Disease Control and Prevention. “Raw Milk Questions and Answers.” 20 February 2015. Web. 27 July 2015.

¹⁵ Centers for Disease Control and Prevention. “Raw Milk Questions and Answers.” 20 February 2015. Web. 27 July 2015.