

## **Improving the Safety and Quality of Raw Milk in Pennsylvania**

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The sale of raw milk is a topic of much debate and regulation across the US. In numerous states the practice is not permitted, whereas other states such as Pennsylvania allow farmers to sell raw milk under various restrictions and conditions. Proponents of raw milk consumption are convinced of the positive health benefits to be realized by consuming non-pasteurized milk and strongly believe that raw milk sales should be permitted, whereas the FDA and numerous other regulatory agencies appear quite openly opposed to the practice, and are often in favor of making it illegal across the country. The Penn State Veterinary Extension Team undertook a project to investigate the milk quality and prevalence of pathogens in 38 permitted raw-milk dairy herds in Pennsylvania, as well as the adoption of best management practices on these farms. In addition, a survey was distributed to the customers of the participating farms, to determine which factors were important to them when deciding to purchase and consume raw milk. A similar survey was sent to 6,000 randomly-selected Pennsylvania consumers to determine the current prevalence of raw milk consumption, as well as the general consumer's attitudes and opinions about this practice.

An important aspect of this project was to encourage permitted raw milk producers to monitor and improve the safety and quality of their product, by providing them with knowledge, resources and tools. A total of 447 monthly samples were tested for the pathogens Salmonella, E.coli, Campylobacter, and Listeria. Results suggest that the prevalence of pathogens is lower in permitted raw milk herds than has been observed in previously reported studies, which tested samples from randomly-selected dairy herds. Milk quality tests (eg. SCC, SPC, coliform count) demonstrated a wide range of quality between herds, as well as occasional marked variation within herd. The findings of the milk quality assessment, pathogen testing, and surveys spurred an ongoing effort to improve the knowledge, attitudes and behaviors of permitted raw milk farmers, as well as that of their customers.