

Michigan Dairy Review

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Raw Milk: A Risk worth Taking? - Update 2011

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Introduction

Since writing the original article found in Michigan Dairy Review in 2005 (1), there have been few changes in the debate over the benefits of consuming raw milk. However, there have been some important developments in the information available and discussion of the topic. In the State of Michigan, a workgroup was formed that has tried to discuss the future of raw milk. The Michigan Fresh Unprocessed Whole Milk Workgroup (2) has been addressing the question: Where do we want to be in 3 to 5 years on access to fresh unprocessed whole milk?

The group started meeting in 2007 and consists of “consumers who seek to ensure access to raw milk; producers who want to provide a healthy source of raw milk; grade ‘A’ milk industry representatives; and, food safety regulators who are looking to balance access and choice issues with protection of the food supply.” A visit to their website (<http://www.mifffs.org/Mlfuwmmilk/index.htm>) indicates that the discussion is a long way from complete and still open to controversial interpretation of anecdotal testimony vs. science. In the meantime cow-share programs have increased. As consumers embrace this approach to obtaining raw milk it becomes more important that the facts are provided.

Information from Website

A relatively new website was started in 2009 after meetings of the American Veterinary Medical Association (3) and the International Association for Food Protection (4) that discussed emerging issues related to increased consumption of raw milk. The “Real Raw Milk Facts” (5) workgroup has constructed an excellent site that is open to both science and policy regarding raw milk. The web site is dedicated to providing evidence-based information on raw milk. The members of the workgroup are clearly identified. The scientists and educators represent a broad spectrum of dairy/food safety experts from universities, government agencies, industry and professional organizations.

Although the site is strongly in favor of pasteurization, raw milk advocates are given opportunity to make comments and share their perspective. The Real Raw Milk Facts website covers news reports from around the country regarding raw milk. There is an excellent “Question and Answer” page that provides a balanced presentation of the supported facts. Pages for related links; commentaries; position statements from academic, professional and

regulatory associations; presentations; scientific references; and outbreak data, provide a large amount of well-supported information. A page covering regulations is promised in the future.

Raw vs. Pasteurized Milk

As with any food, there is some level of risk associated with the consumption of both raw and pasteurized milk. Data and references cover outbreaks in pasteurized milk and milk products as well as raw milk and its derivative products. The most telling statistics show that from 1973 to 2006, 70 % of the outbreaks of food-borne illness were related directly to the consumption of raw (unprocessed) milk and its derivative products, while during that same period only 1 to 3% of the milk drinking population was drinking raw milk. There is no getting around the fact that drinking raw milk has a higher risk than drinking pasteurized milk.

Many raw milk advocates have balked at the epidemiological evidence that has connected outbreaks to farms, but one cannot ignore the strength of the evidence collected in an outbreak in Minnesota. Using a procedure called pulsed-field gel electrophoresis (PFGE), health investigators can now determine the DNA fingerprint of specific organisms.

As of June 10, 2010 there were eight individuals who were confirmed to have been made ill by a specific strain of *E. coli* 0157:H7 that had not previously been isolated in Minnesota (6,7) where the sale of raw milk is limited to direct farm purchases. The specific strain causing the illness has been isolated in 26 animal and environmental samples from the farm that produced raw milk consumed by each individual. The producer has claimed that the health department has no evidence that his product caused the illness because none of the products tested to date contain the organism. However, since the individuals had not been to the farm, the fact that their only common activity was consuming this raw milk does not allow for any reasonable doubt in this case. A second outbreak involving two hospitalizations of children and 30 confirmed illnesses has been linked to a goat milk dairy by the Boulder County Public Health Department (8). Both *Campylobacter* and *E. coli* 0157 bacteria were isolated and confirmed in the Colorado outbreak. Raw milk may not be sold legally in Colorado; however, a share program allows a consumer to own a share in a goat, which then allows the consumer to acquire a share of the milk produced on the farm.

The Minnesota and Colorado cases clearly point out the ability of pathogenic bacteria to contaminate milk without any realization that the contamination has taken place. Neither the producer nor the consumer can detect the presence of bacteria of any type without laboratory testing. Good sanitation practices during the harvesting of milk will reduce the possibility of contamination, but cannot eliminate the risk completely.

Conclusion

Milk is harvested in an environment that presents inherent risks that can only be reduced rather than eliminated and having never found a pathogen on a farm in previous testing does not prevent a pathogen from finding its way onto the facility and into the product. Possible vectors for introduction of a pathogen may include insects, birds, animals, airborne soils and humans. You cannot see bacteria. So why take the chance with the health of your family

when there is a safer alternative that is essentially equivalent from a nutritional perspective in pasteurized milk?

References

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