

Submission for Proposal P1007: Primary Production & Processing Requirements for Raw Milk Products

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When considering how to legislate for the consumption of raw milk and its products, please take the following into consideration:

There are specific health risks encountered by drinking pasteurized milk that are alleviated by drinking raw milk:

1. The destruction of enzymes and prebiotic properties of raw milk. Both properties make raw milk more easily digestible than pasteurized milk. (Schmid, R. *The Untold Story of Milk*, New Trends Publishing, Washington, 2003, 232-4)
2. Raw milk's prebiotic properties make it a prohibitive environment for pathogenic growth. (<http://www.organicpastures.com/faq.html>. Accessed 23 September 2008)
3. Diseases associated with intensive, grain fed dairy cattle (e.g. aflatoxin toxicity, caused by moldy grain consumption), is unaffected by pasteurization. (Ryser, E. 'Public Health Concerns' in Marth, E. & Steele, J. (eds) *Applied Dairy Microbiology*, New York, Marcel Dekker, 2001, 280-1.)
4. In fact, evidence shows that a large proportion of milk-borne diseases derive from pasteurized rather than raw milk. For example, in 1944, The US Public Health Service reports 1,449 milk-borne cases of disease, including 20 deaths. Of these, 430 cases were attributed to raw milk, only 1 of which resulted in death. (Darlington, J.B. 'Why Milk Pasteurisation, Part I: Sowing the Seeds of Fear.' *The Rural New Yorker*, March 15, 1947.)

Intensive, confinement farming, or any farming where cattle spend extended periods of time on hard surfaces does not suit the raw milk industry.

1. Cows housed or grazed intensely have increased risk of disease (e.g. mastitis, laminitis) and increased risk of passing infectious diseases between each other and to their milk. (Santos, J. & Overton, M. 'Diet, Feeding Practices and Housing can Reduce Lameness in Dairy Cattle.' *Progressive Dairyman and Hay Grower*, March, 2001, 145-158. Ensminger, M.E. *Dairy Cattle Science*, Interstate Publishers, Danville, Illinois, 1993, p.332; Haynes, B.N. *Keeping Livestock Healthy, a Veterinary Guide*, Storey Communication, Pownal, Vermont, 1985, 286-287)
2. Some of this is due to contaminated feed (an input unnecessary, or at least reduced, in less intensive grass fed production) and unnatural conditions of proximity and hard surfaces. E.g. PBB (polybromylated biphenyl) contamination of feed in Michigan, 1973. (Schmid, R. *The Untold Story of Milk*, New Trends Publishing, Washington, 2003, 214-218)
3. Cows intensely housed are predominately grain, rather than predominately grass, fed. This exposes the cow to more disease risk (particularly mastitis and aflatoxin toxicity), making the milk unsuitable to drink raw.

The health risks associated with the consumption of raw milk can be addressed by:

1. **Appropriately screening and regularly testing raw milk using standards and methods specifically designed for raw milk destined for consumption (rather than raw milk destined for pasteurization)**
 - Current food standards accept a relatively large amount of disease in conventional dairy cattle, which would be unacceptable in raw milk consumption. For example, SCC counts (somatic cell count, indicating levels of infection present in the cow) would need to be much lower for raw milk consumption. A count over 200 000 is indicative of mastitis. I am not sure what Australia Standards allow but American federal recommendations allow levels up to 750 000 in milk destined for pasteurization. (Jones, G.M. 'guidelines for using DHI somatic cell count program.' *Virginia Cooperative Extension Dairy Science Publication* 1998, 404-228.)
2. **Adherence to specific production practices such as organic and biodynamic methods.**
 - Conventional treatment for mastitis is intra-mammary infusion antibiotics, killing of beneficial bacteria, making cow milk's prebiotic properties defunct.
 - Due to their healthy lifestyle and diet, organic and biodynamical managed dairy cattle have a significantly reduced risk of mastitis.

Please support Australians to exercise informed consumer choice in relation to raw milk consumption. Create a set of standards for raw milk that acknowledge its differences from pasteurized milk and permit us to consume it freely and safely.