CSIRO Submission 10/378

Proposal P1007 - Primary production and processing requirements for raw milk products

Food Standards Australia New Zealand

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Introduction

CSIRO welcomes the opportunity to comment on Food Standards Australia New Zealand Proposal 1007, Primary Production and Processing Requirements for Raw Milk Products (First Assessment Report). The comments in this submission are based on CSIRO's scientific expertise in food microbiology and safety in relation to the questions contained in the proposal document. CSIRO cannot comment on aspects of the proposed regulatory framework as this is a policy issue and a matter for Government.

Comments

General

The first assessment proposal "P1007 – Primary Production and Processing Requirements for Raw Milk Products" is a comprehensive document considering risk and risk mitigation strategies for manufacture of raw milk and raw milk dairy products. FSANZ has collated the relevant information as a basis for examining and understanding the risks associated with these raw milk products. The three categories identified by FSANZ appear an appropriate basis for the risk assessment and the classification of raw drinking milk as category 3 seems appropriate and scientifically justified.

Scope of technical assessment

The technical assessment of the issues involved appears sound and the conclusions of the risk assessment appear valid. It is noted that in some cases there was not sufficient Australian data available and conclusions are based on international data, which may or may not be directly applicable to the Australian situation. It is also noted that there is generally a scarcity of experimental data for the combined effect of various hurdles (eg pH and salt) on the growth and persistence of pathogens in milk and milk products. Previous submissions indicate strong opinions from certain consumer groups in favour of raw milk dairy products which are based on largely unsubstantiated claims of health benefits. It should be considered in the second assessment whether this driver is adequate and representative of the more general population, given that acceptance of the proposal will potentially result in increased costs to industry and the community.

Costs to the affected parties

Costs not specified in Table 1 for Option 3 include those associated with the effect on the existing industry if serious illness and death occurs as a result of consumption of Category 1 and 2 products. These extend to loss of consumer confidence, not only in the manufacturer associated with a safety issue, but to the industry as a whole. Loss of confidence potentially affects local and export markets. There are also costs associated with introduction of compliance programs to ensure raw milk product safety.

Further information

We suggest that FSANZ seek to obtain any available international data to support the efficacy of the proposed controls as satisfactory measures to prevent illness and death from the consumption of raw milk products.

Management of potential changes to dairy processing requirements

As the risks associated with different Category 1 and 2 products will vary, FSANZ should conduct separate risk assessments for each product considering the increased measures, controls and specifications necessary to achieve safety of raw milk products.

Additional systems to facilitate production and support of Category 1 and 2 products

- Increased measures for ensuring the safety of raw milk products will need to be considered on a product by product basis e.g. monitoring the rate of pH drop for each batch of cheese. These measures will need to be applied through the whole manufacturing chain e.g. monitoring ripening conditions for cheese.
- The dairy industry has made considerable advances in on-farm practices to reduce the likelihood of presence of pathogens in raw milk, considering that this is the main

potential point of entry in the supply chain. However the same attention has not always been given to practices beyond the farm gate. Thus, pathogen contamination of raw milk may also occur through inadequate cleaning and sanitation procedures and improper milk storage times and temperatures. Pasteurisation introduces a margin of safety when undesirable deviations in post farm gate procedures occur. Without this safeguard consideration should be given to the necessity for introduction of more stringent controls, monitoring and verification to the whole chain to the point of processing. It may be necessary to use milk from selected farms and dedicated supply routes to minimise the presence of pathogens at the point of processing.

- Manufacture of raw milk products will potentially allow introduction of unpasteurised milk into factory areas that have not been exposed to raw milk previously. This will potentially increase the level of pathogens in the manufacturing environment and necessitate higher standards of hygiene to control these, which may not be achievable in practice. It is suggested that consideration be given to avoid the mixing of raw and pasteurised dairy products throughout the production and processing chain, or the introduction of stricter monitoring and verification controls where this occurs.
- The sampling plans and limits for pathogens and hygiene indicators in raw or reduced processed dairy products should be revised in reference to the latest ICMSF principles and tools, with batch testing for appropriate pathogens and hygiene indicators. Minimum frequencies for various tests should be specified, and consideration be given to the requirement for application of rapid testing for some test classes based on the likely risk of presence or survival of pathogens.
- It is suggested that a process for licensing involving documentation of raw milk production safety plans and demonstrated testing history of hygiene compliance (e.g. on-going low total counts and somatic cell counts and no pathogens detected) be implemented in advance of allowing raw milk products in Category 2 to be sold to consumers. While prevalence data from limited survey work suggests that a minority of farm milk samples have pathogens at detectable levels, there appears to be no information available about the actual levels of pathogens in milk, which may be needed for a full risk assessment.

Conclusion

FSANZ has conducted a thorough review to identify the scientific issues relating to the safety of raw milk products. There remains however a significant task in assessing the practicality, efficacy, cost and determining how to measure safety compliance in factories which range from large to small scale operations.