

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
HEALTH
ORGANIZATION



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Agenda Item 4

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON FOOD HYGIENE

THIRTY-SIXTH SESSION
Washington, DC, USA, March 29 – April 3, 2004

COMMENTS ON THE

DRAFT CODE OF HYGIENIC PRACTICE FOR MILK AND MILK PRODUCTS

Submitted by

International Dairy Federation

3.4.1.1 Annex II, Appendix B: Microbiocidal control measures

The text addressing the control measure “irradiation” is currently placed in square brackets.

IDF considers it advisable to retain the reference, mainly because it is a well-established control measure that is applied in some countries and which has been addressed by other Codex Committees, notably the CCFAC.

It should be noted that the 26th Session of the Codex Alimentarius Commission adopted a revised General Standard for Irradiated Foods and a Recommended (revised) International Code of Practice for the Radiation Processing of Food. The proper (correct) references to these should replace the current references

Annex II, Appendix B – Part B.2.2 Process management (of commercial sterilization)

IDF recommends the deletion of the reference to the 12 log reduction, currently put in square brackets.

The following rationale for the suggestion is brought forward in support of the recommendation:

- The occurrence of *Clostridium botulinum* in milk is extremely rare and/or extremely insignificant (one spore per litre of raw milk at maximum). Moreover, as *Clostridium botulinum* is an obligate anaerobe, multiplication and therefore toxin production in the milk is also practically excluded.

- For commercially sterilized milk no cases have been reported so far for which *Clostridium botulinum* would have had any relevance. Earlier reported cases occurring in Great Britain and Italy did not concern commercially sterilized milk, but composite products for which completely different conditions applied.
- An experimental risk assessment to support this performance criterion has never been carried out. The “*botulinum* cook” encompassing the concept of the "12 log reduction for *Clostridium botulinum*" originates from Esty and Meyer (belonging to the former National Canners Association, now National Food Processors Association, USA) in 1920; they put 10^{12} spores of *Clostridium botulinum* per vial, and found the set of time-temperature heating conditions such that no surviving spores were found in the vials. Thus the probability of finding one surviving spore in a can containing initially one spore and submitting it to such heating was established to be 1 in 10^{12} .
- In any case, it would be practically impossible to validate compliance with this criterion because it will be virtually impossible to produce suspensions of spores of *Clostridium botulinum* of the milk in the necessary density.

From a food safety point of view and in light of the current heating practices in the production of commercially sterilized milk, it is considered irrelevant whether the 12 log reduction is maintained or not.