

# HYGIENE & HEALTH REQUIREMENTS FOR RAW-MILK CHEESES

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## BACKGROUND

Regulation (EC) 853/2004 lies down specific health requirements for raw milk production aiming to elaborate raw-milk cheeses. The possibility of making raw-milk cheeses generates clear concern for health inspection. Besides, new cheeses made from raw milk with different processing technologies are being placed on the market.

**Keywords:** raw-milk cheeses, health status, hygiene quality, lactic fermentation, pathogens, shelf life.


## AIM

➔ To define hygiene and health requirements to ensure safety for raw-milk cheeses.


## METHODOLOGY

An agreement on hygiene and health requirements was reached by veterinarians from different food safety working areas through the analysis of legislation, the review of technical guides (guides to good practice, scientific review papers), regular meetings, and visits to cheese dairies.


## MAIN FINDINGS: BASIC HYGIENE AND HEALTH REQUIREMENTS




Health status of dairy cattle: healthy animals, free of infectious or notifiable diseases (in particular zoonoses like brucellosis, tuberculosis, Q fever...), including hygiene quality of milk collection: proper functioning of milking equipment (cleaning and disinfection, pressures...) and storage vessels.



Hygiene and microbiological quality of raw milk: somatic cell count, aerobic bacteria, absence of inhibitors, and determination of dominant flora from lactic fermentation.



Cheese manufacturing technology or process: previous milk maturing, type of coagulation (acid, mixed or enzymatic), acidification curve, handling of the curd in vats, moulding, pressing, salting, pricking and maturing. The manufacturing process must ensure that the end product meets certain physical and chemical properties that prevent the growth of pathogens (e.g. *L. monocytogenes*). Throughout all the production process, good hygiene practices and good manufacturing practices must be ensured to control/prevent possible risks.



Marketing of cheese: be aware of intrinsic (pH, acidity,  $a_w$ , salt, redox potential, preservatives) as well as extrinsic (temperature, moisture, packaging...) properties, which help to control cheese's shelf-life and provide information to consumers: "made with raw milk", "expiration date" or "best-before date".

## CONCLUSIONS

- ✓ Production of mature cheeses made from raw milk is a part of our tradition and cultural and gastronomic heritage (several designations of origin of Spanish cheeses admit raw-milk production, usually with more than two months of maturation) but not raw-milk cheeses that have not been matured.
- ✓ Last years, a series of small dairies that produce cheeses in a different way (than industrial or conventional ones) have emerged due to various circumstances (low milk price, reassessment of artisanal and local products, arising of neo-rural populations...). Lactic cheeses – either fresh or with very short fermentation periods – soft or semi-soft, mixed coagulation cheeses, etc. have appeared in our market.
- ✓ European regulations allow the production of raw-milk cheeses besides certain hygiene and health requirements to ensure food safety of these products.
- ✓ The key issues of food safety for raw-milk cheeses are: animal health, hygienic quality of milk, processing technology, marketing conditions of products and own-checks and self-monitoring.