



Animal Products (Raw Milk Products Specifications) Notice 2009

Pursuant to sections 45 and 167(1)(h) of the Animal Products Act 1999, and having had regard to the matters specified in section 44(7) of that Act, I, Carol Barnao, Director (Standards) issue the following notice for the purposes of setting specifications and other detailed requirements (relating to raw milk products) that are necessary and desirable to give effect to, and amplify, the Animal Products (Dairy) Regulations 2005.

Issued at Wellington this 1st day of September 2009

Carol Barnao
Director (Standards)
New Zealand Food Safety Authority
(Acting under delegated authority)

Certified in order for signature

Solicitor
Legal Team

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Notice

1 Title

This notice is the Animal Products (Raw Milk Products Specifications) Notice 2009.

2 Commencement

This notice comes into force on 1 October 2009.

Part 1 Preliminary Provisions

3 Purpose and application

- (1) The purpose of this notice is to set additional requirements in respect of—
 - (a) the production and processing of raw milk and dairy material to be used in the manufacture of raw milk products intended for human consumption; and
 - (b) the production and processing of raw milk products intended for human consumption.
- (2) The requirements in this notice only apply in respect of the production and processing of raw milk and dairy material to be used in the manufacture of raw milk products intended for human consumption.
- (3) By way of explanation, the requirements set out in this notice are in addition to any applicable requirements set out in the Act or the Food Act 1981, or any regulations, notices, or standards made pursuant to those Acts.

4 Interpretation

- (1) In this notice, unless the context otherwise requires,—

Act means the Animal Products Act 1999

APC means aerobic plate count incubated at 30°C for 72 hours

approved auditor has the meaning given to it in the Food Act 1981

colostrum has the meaning given to it in the Animal Products (Dairy) Regulations 2005

critical non-compliance has the meaning given to it in the Animal Products (Dairy Processing Specifications) Notice 2006

diseased means the clinical and/or pathological manifestation of infection

farm dairy assessment—

- (a) means a systematic and independent review and examination of the design and operation of a farm dairy; and
- (b) includes the farm dairy construction, facilities, equipment, services, and activities and records to confirm that milk processing is in compliance with the registered RMP and regulatory requirements under the Act and that the milk supplied is expected to be fit for its intended purpose

farm dairy assessor means a person deemed competent by a recognised RMP verifier to assess farm dairy premises and dairy processing activities at farm dairies

food safety criteria means the criteria specified in clause 23

food safety programme has the meaning given to it in the Food Act 1981

infection means the entry and development, or multiplication, of an infectious agent in the body of humans or animals

lot means a quantity of dairy material or product manufactured during a discrete period of time, typically not exceeding 24 hours, as part of one continuous process

milk harvester means a person involved in the milking of animals at a farm dairy

milking means the extraction of milk from a milking animal

milking herd means the milking animals kept and milked for the purpose of making raw milk products, including but not limited to, cows, sheep, goats, and buffalo

milking plant means equipment used at a farm dairy for the—

- (a) extraction, filtering, cooling, or storing of milk; and
- (b) cleaning, sanitising, or similar activities

national Tb eradication scheme means the National Operational Plan for the National Bovine Tuberculosis Pest Management Strategy (NBTPMS), prepared pursuant to section 85 of Biosecurity Act 1993, to give effect to the Biosecurity (National Bovine Tuberculosis Pest Management Strategy) Order 1998 and its amendments of 30 September 2004, and any subsequent amendments or replacements

operator defined process measure —

- (a) means a discrete process step or set of process steps applied during the manufacture of the raw milk product that, —
 - (i) contributes to achieving the food safety criteria; and
 - (ii) is documented in the operator's programme; and
- (b) includes, but is not limited to, cooking time and temperature, acidification and pH reduction, maturation time and temperature, water activity and salt concentration

pathogen means a disease causing organism

pathogen elimination step means a processing step, or a combination of processing steps, that effect a 5-log reduction in the number of pathogens of human health significance in raw milk

pest means a harmful, destructive, or unwanted organism which may adversely affect the animals in the milking herd, the suitability of the environment, or the raw milk, including but not limited to birds, mice, vermin, pigs, poultry, and cats

programme means a registered risk management programme, or a food safety programme

programme operator means an operator of a registered risk management programme or, to the extent that the law allows, a food safety programme

raw milk means milk produced in accordance with a registered risk management programme and that has not been subjected to any processing intended to alter the quality or composition characteristics of the milk

raw milk product means a processed dairy product,—

- (a) that has not received a pathogen elimination step; and
- (b) in which as a result of its nature and the manner in which it is processed, may allow the survival of pathogens, but in the case of pathogens specified in the food safety criteria, will not support their growth or allow their survival, to levels that exceed those specified in the food safety criteria; and
- (c) that is not raw drinking milk; and
- (d) that is not made from colostrum

RMP means a registered risk management programme

season means the period from the 1st of June to the 31st of May of the following calendar year

starter culture means a preparation of micro-organisms that is free of pathogens, and prepared for the purpose of modifying the characteristics of the dairy material

Tb means bovine tuberculosis

Tb clear means achieving and maintaining a rating of “C5” through to “C10” under the national Tb eradication scheme

verifier means a recognised risk management programme verifier or an approved auditor

veterinarian has the meaning given to it in the Veterinarians Act 2005 and veterinary has a corresponding meaning

visibly abnormal milk includes but is not limited to milk that is watery, discoloured, slimy, ropy, or has visible clots, flakes or gross alterations in appearance.

- (2) Any term or expression that is defined in the Animal Products Act 1999, and used but not defined in this notice has the same meaning as in that Act.

Part 2

Farm dairy requirements

5 Identification of farm dairies

Where a programme covers the harvesting and supply of milk for the manufacture of raw milk products, the programme operator must identify the farm dairy and the farm dairy operator.

6 Milking animal identification

- (1) Farm dairy operators must implement an identification system to ensure each animal in the milking herd is uniquely identifiable.
- (2) Records must be kept that enable the farm dairy operator to identify which animals are part of the milking herd.
- (3) The records referred to in subclause (2) must be—
- (a) legible; and
 - (b) held for four years; and
 - (c) stored in a manner which protects the records from damage, deterioration or loss.

7 Animal health

- (1) If any animals in the milking herd are producing milk that is intended for the manufacture of raw milk products in the period from **1 August to 30 November** in any year then the farm dairy operator must ensure that those animals are subject to a veterinary inspection during that period.
- (2) If any animals in the milking herd are producing milk that is intended for the manufacture of raw milk products in the period from **1 February to 31 May** in any year then the farm dairy operator must ensure that those animals are subject to a veterinary inspection during that period.
- (3) Farm dairy operators must ensure that milking herds comprising cows and buffaloes—
- (a) are classified as Tb clear; and
 - (b) tested for Tb each season.
- (4) If goats in the milking herd are on the same farm as cattle, buffalo, or deer then the—
- (a) cattle, buffalo, and deer herds must be classified as Tb clear; and
 - (b) goats must be tested for Tb each season and not give a positive reaction.
- (5) Farm dairy operators must not supply raw milk for the manufacture of raw milk products until such time as the status of the animals concerned, and the milking herd, is confirmed to satisfy the requirements set out in subclauses (3) and (4) if any animal on the farm—
- (a) returns a positive reaction to any Tb test; or
 - (b) is suspected to be affected by Tb based on veterinary diagnosis; or

- (c) is directed to slaughter by a veterinarian or person authorised to do so under the national Tb eradication scheme.
- (6) If the presence of Tb is confirmed in any animal from a farm by any other means, such as post-mortem inspection, then milk from any animal in the milking herd on the farm must not be supplied for the manufacture of raw milk products until such time as the milking herd satisfies the requirements set out in subclauses (3) and (4).

8 Water and feed for animals in the milking herd

Farm dairy operators must ensure that water and feed made available to animals in the milking herd is of suitable quality and is not a vector for pathogens.

9 Milk cooling and storage

- (1) Unless manufacture commences within 2 hours from the completion of milking, raw milk must be—
 - (a) cooled to 7°C or below within 3 hours from the completion of milking if collected daily; or
 - (b) cooled to 6°C or below within 2 hours from the completion of milking if collected every other day.
- (2) Raw milk stored at the farm dairy must be held at the temperature applicable in subclause (1) until it is removed from the farm bulk milk tank or until the next milking.

10 Milk harvesting

- (1) Subject to subclause (2), all teats must be clean and dry at the time milk is harvested from an animal in the milking herd.
- (2) If all teats are not clean and dry in accordance with subclause (1) they must be—
 - (a) for bovine animals, washed and dried with a single service towel; or
 - (b) for caprine animals, wiped.
- (3) Milk harvesters must—
 - (a) strip and observe the foremilk from each teat immediately prior to milking at a frequency determined by the farm dairy operator that ensures abnormalities will be detected, or when there is reason to suspect that the milk may not be fit for manufacture into a raw milk product; and
 - (b) withhold all the milk from any animal in the milking herd found to have visibly abnormal milk from any teat.
- (4) Farm dairy operators must take all reasonable steps to avoid raw milk that is intended for the manufacture of raw milk products from being mixed with, or contaminated by, any milk that is not intended for the manufacture of raw milk products.

11 Operator monitoring of farm milk supply

The programme operator must specify in the programme the manner in which the raw milk supply will be monitored, including but not limited to—

- (a) the parameters to be monitored, including but not limited to, APC, *Escherichia coli*, sensory evaluation, somatic cell count; and
- (b) the frequency at which they are to be monitored; and
- (c) the acceptable limits; and
- (d) the actions to be taken if those limits are exceeded.

12 Disposal of non-conforming raw milk

- (1) Raw milk that has not been harvested in accordance with this notice, or is otherwise not fit for the manufacture of raw milk products, must be withheld and either—
 - (a) disposed of appropriately; or

- (b) redirected to be supplied for processing into a heat treated product if it is suitable for such processing.
- (2) The use or disposal of the milk withheld in accordance with subclause (1) must be recorded.
- (3) The records referred to in subclause (2) must be—
 - (a) legible; and
 - (b) held for four years; and
 - (c) stored in a manner which protects the records from damage, deterioration or loss.

13 Farm dairy assessment

- (1) If any animals in the milking herd are producing milk that is intended for the manufacture of raw milk products in the period from **1 August to 30 November** in any year then the programme operator must ensure that a farm dairy assessment is carried out during that period.
- (2) If any animals in the milking herd are producing milk that is intended for the manufacture of raw milk products in the period from **1 February to 31 May** in any year then the programme operator must ensure that a farm dairy assessment is carried out during that period.
- (3) The farm dairy assessments referred to in subclauses (1) and (2) must be undertaken by a farm dairy assessor or a recognised RMP verifier while the milking herd is in lactation.
- (4) If the operations of a farm dairy are not able to be confirmed as suitable for the harvesting of milk for the manufacture raw milk products, or any situation where a critical non-compliance is identified—
 - (a) the farm dairy assessor is to advise the farm dairy operator and programme operator without delay; and
 - (b) no raw milk harvested at the farm dairy is to be used for the manufacture of raw milk products until the situation has been resolved; and
 - (c) any affected raw milk already supplied must be identified and reported in accordance with clause 14.

14 Reporting findings

The programme operator must ensure that—

- (a) the farm dairy operator is advised of any raw milk collection temperatures that are not in compliance with clause 9 and any results from sampling and testing of the farm dairy milk supply that exceed the limits identified in the programme; and
- (b) for any non-conforming milk or any activity not in compliance with the programme affecting the status of the milk supplied—
 - (i) dairy processors in receipt of the milk are advised without delay; and
 - (ii) the verifier is advised without delay.

Part 3 Transport

15 Transfer to processing premises

- (1) Raw milk that is intended for the manufacture of raw milk products must be segregated from milk that is not.
- (2) A programme covering the transport and storage of raw milk and unpasteurised dairy material intended for the manufacture of raw milk products must ensure that equipment, facilities, and storage areas protect the raw milk and dairy material from contamination.
- (3) The temperature of the raw milk must not exceed 8°C at any point from collection at the farm dairy through to acceptance at the manufacturing premises.

Part 4

Manufacturing requirements

16 General requirements applicable at all stages of raw milk product processing

Raw milk products must be manufactured—

- (a) from raw milk that—
 - (i) is suitable for the nature of the intended raw milk product; and
 - (ii) has been harvested and handled in accordance with this notice; and
- (b) using procedures and equipment of a design that prevent cross contamination.

17 Milk acceptance and storage

Raw milk used for the manufacture of raw milk products must—

- (a) be cooled to 6°C and held at or below 6°C until the commencement of manufacture except—
 - (i) as provided for in clause 9 when held at the farm dairy; or
 - (ii) when manufacture commences within 4 hours of acceptance at the manufacturing premises, in which case the milk temperature must not exceed 8°C; and
- (b) be no older than 48 hours at the commencement of manufacture; and
- (c) be monitored at the commencement of manufacture according to a documented plan in the programme at sufficient frequency to ensure that process hygiene criteria and food safety criteria will be met.

18 Operator defined process measures

The programme operator must document—

- (a) the operator defined process measures to be applied during the manufacture of the raw milk product that alone, or in combination, ensure the food safety criteria is met; and
- (b) the manner in which the operator defined process measures will be monitored; and
- (c) the actions to be taken should any operator defined process measures fail to be applied as intended.

Processing controls and restrictions

19 Milk treatment and preparation

The temperature of raw milk and dairy material must be controlled to minimise the opportunity for pathogens to grow.

20 Starter cultures

- (1) Any starter culture used as part of an operator defined process measure must be capable of achieving any required acidification within the time allowed.
- (2) Whey or material derived from previous dairy product manufacture must not be added as a starter culture.

Managing raw milk product conformance

21 Monitoring dairy product conformance

- (1) The programme operator must ensure that raw milk products—
 - (a) are monitored for relevant pathogens or other microbiological parameters at a frequency appropriate to the nature of the raw milk product and process; and
 - (b) satisfy the process hygiene criteria requirements contained in clause 22; and

(c) meet the food safety criteria.

- (2) Any raw milk product that fails to meet the food safety criteria is non-conforming and must be managed in accordance with regulation 5 of the Animal Products (Dairy) Regulations 2005.

22 Process hygiene criteria

- (1) The raw milk or raw milk products listed in column 2 of table 1 must comply with the microbiological limits listed in column 3 set in relation to the applicable microbiological tests contained in column 1 at the time the criterion listed in column 4 applies.
- (2) If a raw milk or raw milk product listed column 2 of table 1 does not meet the microbiological limit contained in column 3 set in relation to that raw milk product then the programme operator must take the corrective action specified in column 5.

Table 1

Column 1	Column 2	Column 3	Column 4	Column 5
Microbiological tests	Raw milk or Raw milk product	Microbiological limits	Criterion applies	Corrective action required
APC at 30°C	Raw milk	300,000 cfu/ml	Raw milk immediately prior to the commencement of manufacture	Improve production hygiene and monitoring of individual raw milk supplies

23 Food safety criteria

The raw milk products listed in column 2 of table 2 must comply with the limits set in column 3 set in relation to the relevant micro-organism or biological toxin listed in column 1..

Table 2

Column 1	Column 2	Column 3
Micro-organism or biological toxin	Raw milk Product	Limits
<i>Salmonella</i>	All	Absence in five 25 g samples taken over the lot
<i>Listeria monocytogenes</i>	All	Absence in five 25 g samples taken over the lot while under the control of the manufacturing processor
<i>Staphylococcal enterotoxins</i>	All	Not detected in five 25 g samples taken over the lot

24 Operator defined process measure failures

Dairy material and raw milk product are deemed to be non-conforming if there is a failure to apply any operator defined process measure as set out in the programme.

25 Non-conforming dairy material and dairy product

- (1) Any raw milk, dairy material, or raw milk product that has not been harvested, transported, stored, manufactured, or otherwise processed in accordance with this notice, must be managed as non-conforming dairy material in accordance with regulation 5 of the Animal Products (Dairy) Regulations 2005.
- (2) Notwithstanding subclause (1), raw milk or dairy material that is identified as not being suitable for the intended raw milk product may be redirected for further processing with a heat treatment provided the—
 - (a) procedure for managing and tracing the dairy material is set out in the programme; and
 - (b) dairy material is suitable for the nature of the process or product.

Labelling

26 Labelling

By way of explanation —

- (a) clause 4 of Standard 1.2.4 of the food standards code requires ingredients to be declared using the common name of the ingredient, or a name that describes the true nature of the ingredient, or if applicable a generic name; and
- (b) that requirement means that in relation to food made from raw milk, the ingredient declaration should include a statement that the milk is raw or unpasteurised.

Issued under sections 45 and 167(1)(h) of the Animal Products Act 1999.

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This notice is administered by the New Zealand Food Safety Authority.
