



# Raw Milk Products Specifications

10 September 2020

## **TITLE**

Animal Products Notice: Raw Milk Products Specifications

## **COMMENCEMENT**

This Animal Products Notice comes into force on 10 September 2020

## **AMENDMENT**

This Animal Products Notice amends Part 1 to Part 4 of the Animal Products (Raw Milk Products Specifications) Notice 2009 by inserting the following Part 1 to Part 3.

## **ISSUING AUTHORITY**

This Animal Products Notice is issued under section 167 of the Animal Products Act 1999 as in force immediately before commencement of the Food Safety Law Reform Act 2018 pursuant to Clause 4 (2)(b) of Schedule 1 of this Act and the Animal Products (Dairy) Regulations 2005.

Dated at Wellington, 10 September 2020

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(acting under delegated authority of the Director-General)

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This is an Amendment Notice. Replace the Introduction of the Principal Notice with the following:

## Introduction

This introduction is not part of the Animal Products Notice, but is intended to indicate its general effect.

## Purpose

- (1) The purpose of this Notice is to specify particular requirements that apply to the manufacture and verification of raw milk products (such as raw milk cheese).
- (2) The requirements in this Notice are additional to other relevant requirements that apply to dairy processors, such as the:
  - a) [Animal Products \(Risk Management Programme Specifications\) Notice 2008](#); and
  - b) [Animal Products \(Dairy Processing Specifications\) Notice 2011](#).
- (3) This Notice sets out the technical criteria to be met in order to satisfy the [Animal Products \(Dairy\) Regulations 2005](#) with regards to raw milk products, and to ensure that raw milk products are safe to consume due to the nature of processing, the controls applied at each processing step, and the intrinsic product characteristics.
- (4) For clarity, this Notice does not apply to activities covered under the [Raw Milk for Sale to Consumers Regulations 2015](#).

## Background

- (1) This Notice amends existing requirements.
- (2) Any amendments to current requirements are considered to provide clarity and not impose additional cost of compliance on dairy processors or risk management programme (RMP) operators.

## Who should read this Animal Products Notice?

- (1) This Animal Product Notice should be read by:
  - a) farm dairy operators harvesting raw milk intended for processing into raw milk products; and
  - b) manufacturers of raw milk products; and
  - c) transporters of raw milk intended for raw milk products.

## Why is this important?

- (1) This is a key document for anyone transporting and storing raw milk intended for supply to raw milk product manufacturers, or anyone producing raw milk products (such as raw milk cheese) in New Zealand. It is also important for anyone wanting to harvest milk for supply to manufacturers of raw milk products.

## Document History

Version	Version Date	Section Changed	Change(s) Description
0	1 September 2009		
1	10 September 2020	All	Rebranding and editing for clarity.

## Other information

- (1) The information contained within a border throughout this document is for guidance and is not part of the statutory requirements.

- (2) This Animal Products Notice is supported by the [Code of Practice: Additional Measures for Raw Milk Products](#).

## Amendment commentary

Delete clauses in Part 1 to Part 4 of the Animal Products (Raw Milk Products Specifications) Notice 2009 and replace with the following:

### Part 1: Requirements

#### 1.1 Application

- (1) This Notice applies to:
- a) an operator of a risk management programme (RMP) that covers the processing of dairy material (including farm dairy operators, transporters and dairy manufacturers) for raw milk products; and
  - b) a dairy processor who processes dairy material for raw milk products, including farm dairy operators, transporters and dairy manufacturers.

#### 1.2 Definitions

- (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

**clean** means free of soil, food residue, dirt, grease, cleaning or sanitising agents, or other objectionable matter

**corrective action** means action taken to rectify, eliminate the causes of, and prevent recurrence of any problem, failure or non-compliance identified in a plan, procedure, process, product, programme, or system

**critical control point (CCP)** means a step in a process at which a control can be applied which is essential to prevent, eliminate, or reduce a food safety hazard to an acceptable level

**dairy manufacturer** means the operator of a dairy premises used to manufacture dairy material or dairy product

**export** means transport of goods outside New Zealand

**facilities** means a place, amenity, or equipment provided for a particular purpose and includes water supply, refrigeration, heating, ventilation, vacuum, air conditioning, treatment and filtration, supply of gases, lighting, effluent disposal, waste disposal and sanitary arrangements

**farm dairy assessment** means a systematic and independent review and examination of the design and operation of a farm dairy, and includes review of the farm dairy construction, facilities, equipment, services, activities, procedures and records to confirm that raw milk processing is in compliance with the registered RMP and the requirements under the Act

**farm dairy assessor** means a person recognised under section 103 of the Act to assess farm dairy operations

**heat treatment** means the use of heat as a defined heat treatment for the control of pathogenic micro-organisms, the inactivation of enzymes or micro-organisms or any other necessary technological purpose. The term "heat treatment" includes the heat treatment equipment, designs, drawings, manuals, processing parameters, operating and maintenance plans or procedures, training and validation programmes, and records

**lot** means a quantity of dairy product manufactured during a discrete period of time, typically not exceeding 24 hours, in one continuous process

**milking** means all activities at a farm dairy associated with the extraction of milk from milking animals including preparation and examination of milking animals and foremilk, and filtration and cooling of the raw milk

**milking animals** means animal from which milk is intended to be harvested for the purposes of sale, trade or export, with or without further processing, during their milking-life from commencement of first lactation until they are withdrawn from the milking herd, and includes non-lactating periods

**MPI** means the Ministry for Primary Industries

**non-compliance** means any failure to comply with requirement imposed by or under the Act, including requirements within the applicable programme and **non-compliant** has a similar meaning

**non-conforming** in relation to dairy material and dairy product, means any dairy material or dairy product that is known or suspected:

- a) not to meet requirements imposed by or under the Act; or
- b) not to have been processed in accordance with requirements imposed by or under the Act

**operator defined process measure (ODPM)** means a discrete process step or set of process steps applied during the manufacture of the raw milk product that:

- a) contributes to achieving the food safety criteria; and
- b) is documented in the operator's programme; and
- c) includes, but is not limited to, cooking time and temperature, acidification and pH reduction; and
- d) maturation time and temperature, water activity and salt concentration

**pathogen** means a human or animal disease-causing organism

**procedure** means instructions that are documented and followed by the operator

**programme** means an RMP or applicable risk-based measure under the Food Act 2014

**raw milk** means milk that has not been subjected to any processing intended to alter the quality or compositional 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

**raw milk products farm dairy operator** means a farm dairy operator who extracts, harvests and supplies raw milk for the manufacture of raw milk products

**raw milk products milking herd** means the milking animals kept and milked for the purpose of supplying raw milk for the manufacture of raw milk products

**RMP** means a registered risk management programme

**season** means the period from 1 June to 31 May of the following calendar year unless the RMP specifies an alternative 12 month period

**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

**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

**withheld** means excluded permanently from supply, delivery or sale and **withhold** has the same meaning

- (2) Any term or expression defined in the Act or Regulations that is used, but not defined in this Notice, has the same meaning as in the Act or Regulations (as the case may be).



## Part 2: Farm dairies and raw milk supply

### 2.1 Restriction on raw milk supply

- (1) A raw milk products farm dairy operator must ensure that raw milk supplied for the manufacture of raw milk products is processed under an RMP that has the harvesting and supply of raw milk for the manufacture of raw milk products within its scope.

### 2.2 Identification of eligible farm dairies

- (1) An operator of an RMP that covers the milking and supply of raw milk for the manufacture of raw milk products must ensure that it includes a list of farm dairies that meet the requirements to supply raw milk for the manufacture of raw milk products. The list must include:
  - a) the unique farm dairy identifier, such as a supply number; and
  - b) the raw milk products farm dairy operator; and
  - c) the location of the farm dairy; and
  - d) the date that the farm dairy became eligible to supply raw milk products, and if applicable, the date that the farm dairy ceased to be eligible to supply milk for raw milk products.

### 2.3 Milking animal identification

- (1) A raw milk products farm dairy operator must implement an identification system to ensure each animal in the raw milk products milking herd is uniquely identifiable.
- (2) Records must be kept that ensure the raw milk products farm dairy operator can identify which animals are part of the raw milk products milking herd.

### 2.4 Animal health

- (1) A raw milk products farm dairy operator must ensure raw milk for raw milk products is:
  - a) only harvested from outwardly healthy animals; and
  - b) the animals have been subjected to veterinary observation within the previous 6 months.
- (2) A raw milk products farm dairy operator must ensure that the raw milk products milking herd comprising cows, buffaloes or deer:
  - a) are Tb clear; and
  - b) only come into contact with cattle, buffalo, and deer from other herds that are Tb clear; and
  - c) in the case of replacement animals, are sourced from herds that are Tb clear.
- (3) If the raw milk products milking herd is comprised of goats, and the goats in the raw milk products milking herd come into contact with cattle, buffalo, or deer then a raw milk products farm dairy operator must ensure those cattle, buffalo, and deer herds are Tb clear.
- (4) A raw milk products farm dairy operator must withhold the raw milk from any animal on the farm that:
  - a) returns a positive reaction to any Tb test, including a first test positive that has not been confirmed as Tb negative in accordance with clause 2.4 (7); or
  - b) is suspected to be affected by or infected with 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.
- (5) A raw milk products farm dairy operator must ensure that any milking animal that is required to have their milk withheld under clause 2.4 (4) must:

- a) be segregated and isolated from animals in the raw milk products milking herd, and
  - b) be milked after the raw milk products milking herd if they are permitted to be milked, with the milking plant given a hot wash prior to any raw milk products milking animals being milked.
- (6) A raw milk products farm dairy operator must not supply raw milk for the manufacture of raw milk products if:
- a) the presence of Tb is confirmed in any animal on or from a farm by any means, including post-mortem inspection; or
  - b) any animal on the farm is confirmed to be a Tb reactor.
- (7) For clause 2.4 (4), supply of raw milk for the manufacture of raw milk products must only resume once the herd status for animals on the farm has been updated under the national Tb eradication scheme, and it has been confirmed by the raw milk products farm dairy operator that the raw milk products milking herd meets the requirements set out in this clause.
- (8) Any milk withheld under clause 2.4 (4), must be disposed of as per clause 2.8.

## 2.5 Water and feed for animals in the raw milk products milking herd

- (1) A raw milk products farm dairy operator must ensure that water and feed made available to animals in the raw milk products milking herd is suitable for milking animals producing milk for raw milk products and is not a vector for pathogens.

## 2.6 Milking

- (1) A raw milk products farm dairy operator must ensure the teats of milking animals are clean and dry at the time milk is harvested.
- (2) If teats are not clean and dry, the raw milk products farm dairy operator must ensure:
- a) for bovine animals, the teats are washed and dried with a single service towel; or
  - b) for other species, the teats are wiped clean.
- (3) A raw milk products farm dairy operator must ensure:
- a) that immediately prior to milking, the foremilk from each teat is stripped and observed:
    - i) at a documented frequency determined by the raw milk products farm dairy operator that ensures abnormalities will be detected; and
    - ii) when there is reason to suspect that the milk may be abnormal, for example, due to signs of clinical mastitis or elevated somatic cell counts; and
  - b) a raw milk products farm dairy operator must ensure they withhold all the milk from any animal in the raw milk products milking herd found to have visibly abnormal milk from any teat.
- (4) A raw milk products farm dairy operator must ensure that raw milk intended for the manufacture of raw milk products does not come into contact with any milk that is not intended for the manufacture of raw milk products, except where 2.8 (2)(c) applies.

## 2.7 Operator monitoring of farm milk supply

- (1) An operator of an RMP that covers the milking and supply of raw milk for the manufacture of raw milk products must have documented procedures outlining how the raw milk supply will be monitored, including but not limited to:
- a) the parameters to be monitored, such as testing for APC, *E. coli*, sensory evaluation, and 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.

## 2.8 Disposal of non-conforming raw milk

- (1) An operator of an RMP that covers the milking and supply of raw milk for the manufacture of raw milk products must have documented procedures for managing raw milk that has not been harvested in accordance with this Notice, or for any other reasons is not fit for the manufacture of raw milk products.
- (2) The procedures under clause 2.8 (1) must provide for:
  - a) withholding milk on-farm; or
  - b) managing milk as non-conforming dairy material or dairy product in accordance with the Act; or
  - c) presenting milk for supply for heat treated dairy products only, provided that it is suitable for that purpose.
- (3) An operator of an RMP that covers the milking and supply of raw milk for the manufacture of raw milk products must keep a record of any non-conforming milk including the volume, reason and where the milk went.

## 2.9 Farm dairy assessment

- (1) An operator of an RMP that covers the milking and supply of raw milk for the manufacture of raw milk products must ensure raw milk is only harvested for raw milk products if a farm dairy assessment has been undertaken by a farm dairy assessor within the previous 6 months, with an acceptable outcome.
- (2) If the farm dairy assessor is not able to confirm the farm dairy as suitable for the harvesting of milk for the manufacture of raw milk products, or identifies any situation of critical non-compliance on a farm dairy assessment report:
  - a) the farm dairy assessor is to advise the raw milk products farm dairy operator and operator of an RMP that covers the milking and supply of raw milk for the manufacture of raw milk products without delay; and
  - b) all raw milk supplied for the manufacture of raw milk products must be managed as non-conforming milk in accordance with the procedure under clause 2.8.

## 2.10 Transfer to processing premises

- (1) A dairy processor who transports or stores dairy material for the manufacture of raw milk products must ensure that:
  - a) equipment, facilities, and storage areas protect the raw milk from contamination; and
  - b) the dairy material does not come into contact with milk that is not for the manufacture of raw milk products; and
  - c) the temperature of the raw milk does not exceed 8°C at any time from collection at the farm dairy through to acceptance at the manufacturing premises, and must not exceed 6°C for more than 2 hours.

## Part 3: Manufacturing requirements

### 3.1 Restriction on raw milk supply

- (1) A dairy manufacturer who manufactures raw milk products must ensure raw milk products are 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 ensures cross-contamination will not occur.

### 3.2 Milk acceptance and storage

- (1) A dairy manufacturer who manufactures raw milk products must ensure raw milk used for the manufacture of raw milk products is:
  - a) held at or below 6°C until the commencement of manufacture, unless manufacture commences within 4 hours of receipt at the manufacturing premises, in which case the milk temperature must not exceed 8°C; and
  - b) no older than 48 hours at the commencement of manufacture; and
  - c) monitored:
    - i) as part of the sampling and testing; and
    - ii) in a manner and at sufficient frequency to confirm that process hygiene and food safety criteria are routinely met.
- (2) A dairy manufacturer who manufactures raw milk products must have documented procedures for managing milk in accordance with clause 3.2 (1).
- (3) The procedures under clause 3.2 (2) must provide for:
  - a) managing milk as non-conforming dairy material or dairy product in accordance with the Act; or
  - b) presenting milk for supply for heat treated dairy products only, provided that it is suitable for that purpose.
- (4) A dairy manufacturer who manufactures raw milk products must keep a record of any non-conforming milk including the volume, reason and where the milk went.

### 3.3 Operator defined process measures

- (1) In addition to any CCP identified as necessary, a dairy manufacturer who manufactures raw milk products must document:
  - a) the ODPMs to be applied during the manufacture of the raw milk product that alone, or in combination, are necessary to ensure the food safety criteria is met; and
  - b) the manner in which the ODPMs will be monitored; and
  - c) the actions to be taken should any ODPMs fail to be applied as intended.

#### Guidance

The [Code of Practice: Additional Measures for Raw Milk Products](#) provides additional detail regarding ODPMs and how they are applied.

### 3.4 Milk treatment and preparation

- (1) A dairy manufacturer who manufactures raw milk products must have procedures to ensure the temperature of raw milk and dairy material is:
  - a) controlled within the parameters specified in the programme; and
  - b) monitored in order to minimise the opportunity for pathogens to grow.
- (2) A dairy manufacturer who manufactures raw milk products must ensure temperatures above 6°C that are applied to milk or dairy material during processing, including storage and maturation or ripening, are technologically necessary for the process and nature of the raw milk product manufactured.

### 3.5 Starter cultures

- (1) A dairy manufacturer who manufactures raw milk products must ensure that:
  - a) any starter culture used as part of an ODPM must be capable of achieving any required acidification within the time allowed; and
  - b) whey or material derived from previous dairy product manufacture must not be added as a starter culture.

### 3.6 Monitoring dairy product conformance

- (1) A dairy manufacturer who manufactures raw milk products must have procedures to ensure that raw milk products:
  - a) are tested for relevant pathogens or other microbiological parameters at a frequency appropriate to the nature of the raw milk products and process; and
  - b) satisfy the process hygiene criteria requirements in clause 3.7; and
  - c) meet the microbiological food safety criteria in clause 3.8.
- (2) A dairy manufacturer who manufactures raw milk products must ensure the following are met:
  - a) any raw milk products that fails to meet the food safety criteria are managed as non-conforming dairy products; and
  - b) keep a record of any non-conforming raw milk product including the volume, reason and how it was managed; and
  - c) all results for testing carried out under clause 3.6(1)(a) must be kept, and made available to the verifier on request

#### Guidance

Additional process hygiene and food safety criteria are set out in the [Animal Products \(Dairy Processing Specifications\) Notice 2011](#) and [Chapter 1.6.1 of the Food Standards Code](#). The [Code of Practice: Additional Measures for Raw Milk Products](#) sets out more detail for the parameters to include and the frequency of monitoring.

### 3.7 Process hygiene criteria

- (1) A dairy manufacturer who manufactures raw milk products must have procedures to ensure the dairy material listed in column 2 of Table 1: Raw Milk Products – Hygiene Acceptance Criteria:
  - a) is sampled in accordance with the criterion in column 4 of Table 1; and
  - b) is tested for the applicable microbiological test in column 1 of Table 1; and
  - c) does not exceed the maximum level specified in column 3 of Table 1.

- (2) If raw milk exceeds the microbiological limits in column 3 of Table 1: Raw Milk Products – Hygiene Acceptance Criteria then a dairy manufacturer who manufactures raw milk products must either:
- take the corrective action specified in column 5 of Table 1 without delay to remedy the situation; or
  - suspend manufacture until the microbiological limits in column 3 of Table 1 are consistently met; or
  - manage all affected dairy material and dairy product as non-conforming.

**Table 1: Raw milk products – hygiene acceptance criteria**

Column 1	Column 2	Column 3	Column 4	Column 5
Microbiological tests	Dairy material	Maximum acceptable level	Criterion applies	Corrective action required
Aerobic Plate Count – 30°C for 72 hours	Raw milk	300,000 cfu/ml	Raw milk immediately prior to the commencement of manufacture	Improve transport and premises hygiene. Monitor individual raw milk supplies and improve hygiene where necessary.

### 3.8 Food safety criteria

- (1) A dairy manufacturer who manufactures raw milk products must ensure the raw milk products listed in column 2 of Table 2: Raw Milk Products – Product Safety Limits complies with the additional limits set in column 3 of Table 2 in relation to the relevant micro-organism or biological toxin listed in column 1 of Table 2.

**Table 2: Raw milk products – product safety limits**

Column 1	Column 2	Column 3
Micro-organism or biological toxin	Raw milk product	Product safety limit
<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 dairy manufacturer
Staphylococcal enterotoxins	All	Not detected in five 25 g samples taken over the lot

### 3.9 Operator defined process measure failures

- (1) A dairy manufacturer who manufactures raw milk products must ensure:
- any dairy material or raw milk product are deemed to be non-conforming if there is a failure to apply any ODPM as set out in the programme; and
  - is managed in accordance with clause 3.10.

### 3.10 Non-conforming dairy material and dairy product

- (1) A dairy manufacturer who manufactures raw milk products must ensure 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 the Act.

- (2) Notwithstanding clause 3.10 (1), raw milk or dairy material that is identified as not being suitable for the intended raw milk product may be redirected by a dairy manufacturer who manufactures raw milk products for further processing with an appropriate heat treatment provided the:
- a) intended dairy material or dairy product and its processing is covered by the programme along with procedures for managing and tracing the dairy material; and
  - b) dairy material is suitable for the nature of the process or product.