Ministry for Primary Industries
Manatū Ahu Matua

Animal Products Notice

Raw Milk Products

23 June 2022

Issued under the Animal Products Act 1999

New Zealand Government

TITLE

Animal Products Notice: Raw Milk Products

COMMENCEMENT

This Animal Products Notice comes into force on 1 July 2022

ISSUING AUTHORITY

This Animal Products Notice is issued under section 167(2) of the Animal Products Act 1999 and supplements the Animal Product Regulations 2021

Dated at Wellington, 23 June 2022

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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 supplement the Animal Products Regulations 2021 by detailing requirements that apply to the manufacture and verification of raw milk products (such as raw milk cheese).

Background

(1) The Animal Products Act 1999 establishes a regime for ensuring that animal products are fit for their intended purpose.

(2) The Animal Products Regulations 2021 set out the details of that regime.

(3) This Notice sets out the technical criteria to be met with regards to processing of raw milk intended for 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.

Who should read this Animal Products Notice?

(1) This Animal Products Notice should be read by:

a) a farm dairy operator operating under an RMP who extracts, harvests and supplies raw milk for the manufacture of raw milk products; and
b) a dairy processor who transports dairy material for raw milk products whether or not they operate under an RMP; and
c) a dairy processor who manufactures raw milk products whether or not they operate under an RMP or an applicable risk-based measure under the Food Act 2014; and
d) the operator of the applicable RMP that covers the activities in Part 2, 3 or 4.

Why is this important?

(1) This is a key document for anyone transporting 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.

Other information

(1) This Animal Products Notice is supported by the Code of Practice: Additional Measures for Raw Milk Products.

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

(3) Additional process hygiene and food safety criteria are set out in the Animal Product Notice: Production, Supply and Processing and Chapter 1.6.1 of the Food Standards Code.

(4) The Code of Practice: Additional Measures for Raw Milk Products sets out more detail for the parameters to consider and the frequency of monitoring.

(5) The requirements in this Notice are additional to other relevant requirements that apply to dairy processors, such as the Animal Products Notice: Production, Supply and Processing.

(6) For clarity, this Notice does not apply to activities covered under the Raw Milk for Sale to Consumers Regulations 2015.

Part 1: Requirements

1.1 Application

(1) This Notice applies to the processing of raw milk products.

(2) Note that:

a) Part 2 applies to a farm dairy operator who extracts and supplies raw milk for the manufacture of raw milk products and who operates under an RMP;
b) Part 3 applies to dairy transporters who transport dairy material intended for the manufacture of raw milk products, whether or not they operate under an RMP;
c) Part 4 applies to dairy processors who manufacture raw milk products, whether they operate under an RMP or an applicable risk-based measure under the Food Act 2014.

1.2 Definitions

(1) In this Notice, unless the context otherwise requires:

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

lot means a quantity of dairy product manufactured during a discrete period of time, 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

non-compliance means any failure to comply with requirements imposed by or under the Act, including requirements within the applicable RMP or applicable risk-based measure under the Food Act 2014 and **non-compliant** has a similar meaning

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 RMP or applicable risk-based measure under the Food Act 2014; 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

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

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 clear means achieving and maintaining a rating of "C5" through to "C10" under the Biosecurity (National Bovine Tuberculosis Pest Management Plan) Order 1998 (the Tb Plan)

(2) Any term defined in the Act, Regulations, or the Animal Products Notice: Production, Supply and Processing and used in this Notice but not defined in this Notice has the meaning given in the Act, Regulations, or Animal Products Notice: Production, Supply and Processing.

Part 2: Farm dairies and raw milk supply

2.1 Application

(1) This Part applies to the processing of raw milk intended for raw milk products at a farm dairy.

2.2 Restriction on raw milk supply

(1) A 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.

2.3 Identification of eligible farm dairies

(1) The RMP must include a list of farm dairies that meet the requirements of this part and, as such, are eligible 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.

2.4 Milking animal identification

(1) A 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 farm dairy operator can identify which animals are part of the raw milk products milking herd.

2.5 Animal health

(1) A farm dairy operator must:

a) arrange veterinary inspections to observe the health and condition of the animals in the raw milk products milking herd at least every six months; and
b) keep records showing the date of each veterinary inspection along with any observations and recommendations made by the veterinarian at the time.

(2) A farm dairy operator must ensure that a raw milk products milking herd comprising cows, buffaloes or deer:

a) is Tb clear; and
b) only comes 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 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 2.5 (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 farm dairy operator must ensure that any milking animal that is required to have their milk withheld under clause 2.5 (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 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 2.5 (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 farm dairy operator that the raw milk products milking herd meets the requirements set out in this clause.

(8) Any milk withheld under clause 2.5 (4), must be disposed of as per clause 2.9.

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

(1) A farm dairy operator must only extract milk from animals that are fed, offered or exposed to suitable water and feed that is not a vector for pathogens.

2.7 Milking

(1) A farm dairy operator must ensure that the raw milk products milking herd is milked prior to the main milking herd and prior to any animals that have been treated or that have an animal health condition, unless the milking equipment is cleaned, sanitised, rinsed and drained before the raw milk products milking herd is milked.

(2) A farm dairy operator must ensure the teats of milking animals are clean and dry at the time milk is extracted.

(3) If teats of an animal are not clean and dry, the farm dairy operator must ensure:

a) for bovine animals, the teats are:

i) washed and dried with a single service towel; or
ii) washed, sanitised and dried.

b) for any other species of animal, the teats are wiped clean.

(4) If the teats of a bovine animal are clean but not dry, then the farm dairy operator must ensure they are sanitised and dried.

(5) A 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, udder discomfort, or elevated somatic cell counts.

(6) A 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 2.9 (2)(c) applies.

2.8 Procedures for monitoring of farm milk supply

(1) The RMP must include procedures setting out 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*, and somatic cell count; and
b) the frequency at which they are to be monitored; and
c) the actions to be taken if dairy conformance standards or operator-defined limits are exceeded.

2.9 Disposal of non-conforming raw milk

(1) The RMP must include procedures for managing raw milk that:

a) has not been processed in accordance with this Part, or
b) has not been processed in accordance with any other relevant requirements under the Act; or
c) for any other reasons, is not fit for the manufacture of raw milk products.

(2) The procedures under clause 2.9 (1) must provide for:

a) withholding milk on-farm; or
b) managing milk as non-conforming dairy material in accordance with the Act; or
c) presenting milk for supply for heat treated dairy products only, provided that it is assessed as suitable for that purpose and the RMP provides for the supply.

(3) The RMP must have procedures to ensure that a record of any non-conforming milk is kept including the volume, reason and where the milk went.

2.10 Farm dairy assessment

(1) The RMP must ensure that farm dairy assessments occur at the following minimum frequencies:

a) a full assessment of each farm dairy covered by the RMP at least once every 12 months: and
b) a surveillance assessment or a full assessment of each farm dairy covered by the RMP within 6 months of the previous farm dairy assessment.

(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 a critical non-compliance on the farm dairy assessment report:

a) the farm dairy assessor must advise the farm dairy operator and the operator of the RMP covering the farm dairy without delay; and
b) the RMP operator must advise their verifier of the farm dairy assessment non-compliance; and
c) 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 2.9.

Part 3: Dairy Transporters

3.1 Application

(1) This Part applies to the transport dairy material intended for the manufacture of raw milk products.

3.2 Transfer to manufacturing premises

(1) A dairy processor must ensure that during transport:

a) the raw milk does not come into contact with milk that is not for the manufacture of raw milk products; and
b) from the farm dairy to the manufacturing premises the temperature of the raw milk:

i) is monitored and recorded; and
ii) does not exceed 8°C at any time from collection at the farm dairy through to acceptance at the manufacturing premises; and
iii) does not exceed 6°C for more than 2 hours in total.

3.3 Cleaning and sanitising

(1) A dairy processor must:

a) have procedures for the cleaning and sanitising of all equipment used for the transport and handling of raw milk; and
b) ensure cleaning and sanitising does not adversely affect the raw milk; and
c) keep records of the cleaning and sanitising undertaken.

3.4 Checks

(1) A dairy processor must on a weekly basis undertake checks to ensure the requirements of this part have been met.

(2) A dairy processor must undertake and keep a record of corrective actions if checks show that the requirements of this part are not met.

Part 4: Manufacturing requirements

4.1 Application

(1) This Part applies to the manufacture of raw milk products.

4.2 Restriction on raw milk supply

(1) A dairy manufacturer 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, supplied, transported and handled in accordance with Part 2 and Part 3 of this Notice; and

b) following procedures that ensure cross-contamination will not occur; and
c) using equipment of a design that ensures cross-contamination will not occur.

4.3 Milk acceptance and storage

(1) A dairy manufacturer 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) in accordance with 4.7; 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 must have procedures that ensure milk is managed in accordance with clause 4.3 (1).

(3) The procedures under clause 4.3 (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 must keep a record of any non-conforming dairy material, including the volume, reason and where the milk went.

4.4 Operator defined process measures

(1) In addition to any CCP identified as necessary, a dairy manufacturer 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.

4.5 Milk treatment and preparation

(1) A dairy manufacturer must have procedures to ensure the temperature of raw milk and dairy material is:

a) controlled within the parameters specified in the RMP or applicable risk-based measure under the Food Act 2014; and
b) monitored in order to minimise the opportunity for pathogens to grow.

(2) A dairy manufacturer 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.

4.6 Starter cultures

(1) A dairy manufacturer 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.

4.7 Monitoring dairy product conformance

(1) A dairy manufacturer 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 4.8; and
c) meet the microbiological food safety criteria in clause 4.9.

(2) A dairy manufacturer must ensure that:

a) any raw milk products that fail to meet the food safety criteria are managed as non-conforming dairy products; and
b) records are kept 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 4.7(1)(a) are kept, and made available to the verifier on request

4.8 Process hygiene criteria

(1) A dairy manufacturer must have procedures to ensure the dairy material is sampled and tested in accordance with Table 1: Raw Milk Products – Hygiene Acceptance Criteria.

(2) If the specified dairy material exceeds the maximum acceptable level in column 3 of Table 1: Raw Milk Products – Hygiene Acceptance Criteria then the dairy manufacturer must either:

a) take all the corrective action specified in column 5 of Table 1 without delay to remedy the situation; or
b) suspend manufacture until the maximum acceptable level in column 3 of Table 1 is consistently met; or
c) 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	To raw milk sampled immediately prior to the commencement of manufacture	Liaise with the farm dairy operator. Improve transport and premises hygiene. Monitor individual raw milk supplies and improve hygiene where necessary.

4.9 Food safety criteria

(1) A dairy manufacturer must ensure that raw milk products comply with the additional microbiological limits set out in Table 2: Raw Milk Products – Additional Microbiological Limits.

Table 2: Raw milk products – additional microbiological limits

Micro-organism or biological toxin	Microbiological limit
Listeria monocytogenes	Absence in five 25 g samples taken over the lot while under the control of the dairy processor
Staphylococcal enterotoxins	Not detected in five 25 g samples taken over the lot

(2) Testing for Staphylococcal enterotoxins is not routinely required provided that the sampling and testing plan includes routine monitoring for Coagulase positive Staphylococci in samples taken at the time that levels are expected to be at their greatest, and the test results and the relevant microbiological limits are met.

4.10 Operator defined process measure failures

(1) A failure to apply an ODPM as set out in the RMP or applicable risk-based measure under the Food Act 2014 is a failure to apply proper processing, and any affected dairy material or raw milk product is non-conforming and is managed in accordance with clause 4.11.

4.11 Non-conforming dairy material and dairy product

(1) A dairy manufacturer must ensure that raw milk, dairy material, or raw milk product is managed as non-conforming dairy material in accordance with the Animal Product Notice: Production, Supply and Processing and the Animal Products Supplementary Notice: Disposal of Non-conforming Dairy Material and Dairy Product if any of the following apply:

a) it has not been harvested, transported, manufactured, or otherwise processed in accordance with this Notice;
b) it does not meet the dairy conformance standards;
c) it is non-conforming dairy material or dairy product.

(2) Notwithstanding clause 4.11 (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 for further processing with an appropriate defined heat treatment, provided the:

a) intended dairy material or dairy product and its processing is covered by the RMP or applicable risk-based measure under the Food Act 2014 along with procedures for managing and tracing the dairy material; and
b) dairy material is suitable for the nature of the process or product; and
c) relevant records are held.