

Title	Describe factors that affect milk quality, milk testing, milk cooling, and interpret milk tanker information		
Level	2	Credits	8

Purpose	People credited with this unit standard are able to: describe regulatory requirements, procedures and tests for factors that affect milk quality, and the public perception and human health implications of bacteria in milk; describe the relationship between milk temperature, collection time, the presence and growth of bacteria, and the practical considerations for maintaining milk at ideal temperatures; and interpret the information on milk quality provided by the dairy company through daily milk tanker information.
----------------	--

Classification	Agriculture > On-farm Milk Quality
-----------------------	------------------------------------

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 Legislation relevant to this unit standard includes but is not limited to:
 - Agricultural Compounds and Veterinary Medicines Act 1997;
 - Animal Products Act 1999;
 - Animal Welfare Act 1999;
 - Food Act 1981;
 - Hazardous Substances and New Organisms Act 1996;
 - Health Act 1956;
 - Health and Safety at Work Act 2015;
 - Resource Management Act 1991;
 - and any subsequent amendments.
- 2 All evidence presented in this unit standard must be in accordance with workplace procedures.
- 3 Definition
Workplace procedures refer to policies and procedures on safety, operation, and production set down by the employer or host organisation.
- 4 References
NZCP-1, New Zealand Dairy Industry Farm Dairy Code of Practice, New Zealand Food Safety Authority, ISBN 0-908946-00-7, referred to as the code of practice.
DPC 2: Animal Products (Dairy) Approved Criteria for Farm Dairies, referred to as DPC 2. Available from the NZ Food Safety Authority website, <http://www.nzfsa.govt.nz>.

Outcomes and performance criteria

Outcome 1

Describe regulatory requirements, procedures and tests for factors that affect milk quality, and the public perception and human health implications of bacteria in milk.

Performance criteria

- 1.1 Describe regulatory requirements in terms of milk quality.
- Range requirements include but are not limited to – NZCP-1, DPC 2.
- 1.2 Describe public perception and human health implications of bacteria in terms of milk harvested on-farm.
- 1.3 Describe procedures which contribute to quality in terms of milk harvested on-farm.
- Range procedures include but are not limited to - walk cows to dairy, calm cows, clean milking equipment and facilities.
- 1.4 Describe the factors that affect quality of milk harvested on-farm in terms of the causes of the presence of these factors, and tests that are carried out to confirm their presence.
- Range factors that affect milk quality include but are not limited to – hygiene of the milker; bacteria – heat resistant, coliform; sediment, water, inhibitory substances, somatic cells, milk collection temperature, DDE (dichlorodiphenyl dichloroethene); residues – rat bait, sprays, veterinary medicines.

Outcome 2

Describe the relationship between milk temperature, collection time, the presence and growth of bacteria, and the practical considerations for maintaining milk at ideal temperatures.

Performance criteria

- 2.1 Describe the relationship between temperature and collection time in terms of the primary and secondary cooling of milk.
- 2.2 Describe the relationship between temperature and the presence and growth of bacteria in terms of the primary and secondary cooling of milk.
- 2.3 Describe the practical considerations for the maintenance of ideal temperatures for milk in relation to all stages of cooling.
- Range considerations include but are not limited to - observation, cooling equipment operational.

Outcome 3

Interpret information on milk quality provided by the dairy company through daily milk tanker information.

Performance criteria

3.1 Interpret daily milk tanker information to determine the implications for the farmer.

Range test information includes but is not limited to – bactoscan, coliform plate count, thermophilic plate count; other information – demerits, demerit alert, alert, collection temperature; evidence of one other information type is required.

Planned review date	31 December 2026
----------------------------	------------------

Last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 August 2007	31 December 2023
Review	2	24 February 2022	N/A

Consent and Moderation Requirements (CMR) reference	0052
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Muka Tangata – People, Food and Fibre Workforce Development Council qualifications@mukatangata.nz if you wish to suggest changes to the content of this unit standard.