

Describe milk cooling, milk cooling equipment, and milk cooler hygiene checking

Level 3

Credits 5

Purpose People credited with this unit standard are able to describe: primary and secondary milk cooling, problems which can occur, and procedures for hygiene checking; and milk company and supplier responsibilities for purchase and installation of on-farm milk cooling equipment.

Subfield Agriculture

Domain Dairy Farming

Status Registered

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Entry information Open.

Accreditation Evaluation of documentation and visit by NZQA, industry and teaching professional in the same field from another provider.

Standard setting body (SSB) Primary Industry Training Organisation

Accreditation and Moderation Action Plan (AMAP) reference 0052

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

Special notes

- 1 Legislation includes but is not limited to – Health and Safety in Employment Act 1992, Animal Products Act 1999, Animal Welfare Act 1999, Health Act 1956, Food Act 1981, Agricultural Compounds and Veterinary Medicines Act 1997, Resource Management Act 1991, Hazardous Substances and New Organisms Act 1996.

- 2 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>.
- 3 *On-farm quality management procedures* refer to the documented procedures for farm dairy hygiene practices, which must meet legislative and dairy company requirements. On-farm quality management procedures are available from all dairy companies.

Elements and performance criteria

Element 1

Describe primary and secondary milk cooling, problems which can occur, and procedures for hygiene checking.

Performance criteria

- 1.1 The process of primary cooling is described in terms of the way this is achieved in the farm dairy.
- 1.2 Primary and secondary cooling is described in terms of the relationship between maximum compliance temperature for milk collection, and collection time after milking.
- 1.3 Problems which can occur during primary cooling are described in terms of possible solutions.

Range problems – milk entering bulk milk tanks above 18°C, temperature of water entering plate cooler above 16°C, water flow rate less than 2-3 times maximum milk flow, plates not clean, plates assembled incorrectly.
- 1.4 Plate coolers are described in terms of the problems that can occur.

Range not sized correctly, insufficient water flow, uneven milk flow, dirty or blocked, flow patterns, water temperature too high, plate compression.
- 1.5 A plate cooler is described in terms of the procedures for sizing for a farm dairy.
- 1.6 The procedure for carrying out a hygiene check of the plate cooler and requirements for recording are described in terms of manufacturer's recommendations, and on-farm quality management procedures.

Element 2

Describe milk company and supplier responsibilities for the purchase and installation of on-farm milk cooling equipment.

Performance criteria

2.1 The purchase and installation of on-farm milk cooling equipment is described in terms of milk company and supplier responsibilities.

Range purchase and installation of – refrigeration condensing units, refrigeration piping, equipment control; installation of – electrical requirements.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Primary Industry Training Organisation standards@primaryito.ac.nz if you wish to suggest changes to the content of this unit standard.