Australian Government

# FBPCHE5003 Produce a range of rennet-coagulated cheeses

**Release: 1**

# FBPCHE5003 Produce a range of rennet-coagulated cheeses

## Modification History

| Release | Comments |
|---|---|
| Release 1 | This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0. |

## Application

This unit of competency describes the skills and knowledge required to produce a range of rennet-coagulated cheeses to a commercial standard.

The unit applies to individuals employed as production managers with responsibility for overseeing operational procedures that comply with workplace health and safety, food safety, recordkeeping and quality assurance requirements for the rennet-coagulated cheese making process.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Cheese (CHE)

## Elements and Performance Criteria

| Elements | Performance Criteria |
|---|---|
| *Elements describe the essential outcomes.* | *Performance criteria describe the performance needed to demonstrate achievement of the element.* |
| 1. Manage sanitation in artisan cheese making | 1.1 Sanitise or pre-ripen a container of starter culture under aseptic conditions before tipping the contents into the vat to reduce the risk of infection or contamination<br>1.2 Ensure all surfaces are clean and sanitised except for curing boards<br>1.3 Supervise stringent personal hygiene and quarantine procedures as |

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|---|---|
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| | part of best manufacturing practice<br>1.4 Apply multi-phase cleaning systems to ensure sanitised surfaces and equipment<br>1.5 Review food safety related information, including milk counts and cheese bacterial counts |
| 2. Implement procedures to prepare milk for artisan cheese making | 2.1 Measure and analyse composition and counts in raw milk samples<br>2.2 Implement standard procedures for preparing raw milk<br>2.3 Carry out milk pasteurisation procedures<br>2.4 Maintain raw milk in an area separate from pasteurised milk operations |
| 3. Mix ingredients in the vat for rennet-coagulated cheeses | 3.1 Add colour to the milk to change the colour of the cheese according to cheese type and recipe<br>3.2 Add mould spores for mould-ripened cheeses according to cheese type and recipe<br>3.3 Add adjunct cultures to influence the texture and flavour of the ripened cheese according to cheese type and recipe<br>3.4 Add enzymes to alter the flavour profile of the ripened cheese according to cheese type and recipe<br>3.5 Acidify the milk with organic or inorganic acids before renneting according to cheese type and recipe<br>3.6 Use acid to partly acidify the milk prior to adding culture to control the calcium phosphate level in the curd during cheese making according to cheese type and recipe<br>3.7 Add cultures and rennet to milk and hold at temperature according to recipe<br>3.8 Maintain a log of pH and temperature to monitor yield |
| 4. Cut and handle the curd for rennet-coagulated cheeses | 4.1 Supervise curd cutting to achieve optimal yield and the required moisture level in the cheese<br>4.2 Monitor agitation and temperature of the curd and whey<br>4.3 Heat curd and whey as required and check for uneven curd or overheating according to recipe<br>4.4 Plan the heating schedule to ensure optimal syneresis<br>4.5 Remove part of the whey and replace with water to wash lactose |

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| | and lactic acid from the curd according to recipe<br>4.6 Mat the curd under the whey before it is removed to ensure proper eye development for large and small eye cheeses, according to recipe<br>4.7 Remove all or part of the whey from the curds by draining out the vat |
| 5. Implement salting, curing and packaging procedures | 5.1 Implement procedures to prepare the curd for salting<br>5.2 Apply salting treatments to ensure salt profile effects are minimised in the finished product<br>5.3 Place dry salted stirred or milled curd particles into moulds for pressing<br>5.4 Implement and monitor ripening procedures<br>5.5 Apply packaging appropriate for cheese type |
| 6. Monitor and adjust process controls to produce cheese with consistent taste and quality | 6.1 Identify the process objectives of rennet-coagulated cheese making<br>6.2 Monitor processing to control moisture in cheeses<br>6.3 Control the rate and the amount of acid development<br>6.4 Control calcium phosphate levels to influence basic cheese structure<br>6.5 Control texture of the cheese by regulating pH, ripening agents, salt, moisture and fat<br>6.6 Control cheese flavour and pH levels by adding ingredients, such as milks, cultures, coagulating agents and salt<br>6.7 Control processing parameters to achieve optimal yield<br>6.8 Age rennet-coagulated cheeses to develop optimal flavour and texture |
| 7. Carry out sensory analysis and grading of artisan rennet-coagulated cheeses | 7.1 Assess cheeses for evenness of texture, colour, finish and flavour<br>7.2 Grade cheeses according to texture, colour, finish and flavour<br>7.3 Analyse organoleptic properties of rennet-coagulated cheeses to identify possible changes to process controls |
| 8. Meet workplace requirements for food safety, quality and environmental management | 8.1 Record food safety related information<br>8.2 Maintain records of cheese manufacture<br>8.3 Implement work health and safety and environmental protection procedures using a risk management approach |

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|---|---|
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| | 8.4 Dispose of waste and review environmental impacts for the cheese making operation |

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

| Skill | Description |
|---|---|
| Reading | • Interpret recipes and specifications from a variety of sources to consolidate information for cheese production |
| Numeracy | • Weigh and measure ingredients for cheese making<br>• Sample cheese to analyse pH, moisture and salts<br>• Calculate cheese yields |
| Navigate the world of work | • Follow policies, procedures and legislative requirements for cheese making process |

## Unit Mapping Information

| Code and title current version | Code and title previous version | Comments | Equivalence status |
|---|---|---|---|
| FBPCHE5003 Produce a range of rennet-coagulated cheeses | FDFCH4003A Produce a range of rennet-coagulated cheeses | Updated to meet Standards for Training Packages<br><br>Unit code updated to reflect AQF level<br><br>Changes to Performance Criteria to clarify the intent of the unit | Equivalent unit |

# Links

Companion Volume Implementation Guides are found in VETNet: - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4