



Australian Government

FBPCHE5007 Produce acid and heat coagulated artisan cheese

Release: 1

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Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 3.0.

Application

This unit of competency describes the skills and knowledge required to produce acid and heat coagulated cheeses in an artisan cheese making environment.

This unit applies to cheesemakers who have responsibility for overseeing the production of cheese, adapting the process where required to suit the specified outcome, and complying with workplace health and safety, food safety, record keeping and quality assurance requirements for the cheese making process.

No 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
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for cheese making	1.1 Identify characteristics, make parameters and production goals of type of acid and heat coagulated cheese to be produced 1.2 Identify hazards and manage risks associated with producing cheese of that type 1.3 Prepare make and ripening sheet for the cheese to be made,

Elements	Performance Criteria
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	showing reference parameters for that cheese type, and record all actual make and ripening parameters on the sheet as they occur 1.4 Prepare milk and starter culture using good hygiene practice (GHP) 1.5 Ensure all surfaces meet cleanliness and sanitisation requirements 1.6 Manage GHP and good manufacturing practice (GMP) throughout cheese making process 1.7 Record cheese production information according to workplace procedures
2. Prepare milk or milk products	2.1 Sample raw or pre-pasteurised milk and analyse composition 2.2 Confirm desired outcome of the cheese making process, based on milk composition and production goals 2.3 Standardise milk or modify make process for consistent outcome, as required
3. Promote coagulation of curds and whey	3.1 Heat the milk to temperature required for specific cheese type 3.2 Acidify the hot liquid to coagulate whey proteins according to cheese type 3.3 Hold the curd in the curd and whey mixture after coagulation 3.4 Control the texture of the cheese by regulating pH and protein 3.5 Maintain a log of pH and temperature to monitor yield 3.6 Control cheese flavour through choice of ingredients, such as whey, milk, cream, acidulant and salt according to cheese type
4. Monitor and adjust cheese processing	4.1 Drain whey from curd to achieve desired texture 4.2 Apply salting treatments for required outcome and ensure adverse salt profile effects are minimised in the finished product 4.3 Cool and dry cheeses before packing 4.4 Maintain GHP during cooling to minimise contamination with microbial contaminants
5. Conduct housekeeping activities	5.1 Clean equipment and work area in line with workplace procedures 5.2 Conduct routine maintenance activities 5.3 Dispose of waste in line with regulatory requirements

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 cheese make requirements from a variety of sources to consolidate information for cheese production
Writing	Document details of make process, including weights, temperature, humidity, pH, titratable acidity, salt and organoleptic parameters
Numeracy	- Weigh and measure ingredients for cheese making - Test cheese to analyse pH, titratable acidity, moisture and salts - Accurately weigh and measure ingredients for cheese making
Get the work done	Adjust processing parameters and problem-solve issues as they arise

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCHE5007 Produce acid and heat coagulated artisan cheese	Not applicable	New unit	No equivalent unit

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

Assessment Requirements for FBPCHE5007 Produce acid and heat coagulated artisan cheese

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has produced at least one type of acid and heat coagulated cheese, on two different occasions, with consistent texture, colour, finish and flavour.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the main types of acid and heat coagulated cheeses
- the chemical and physical composition of bovine and non-bovine milks, including on a seasonal basis, and components important in cheese making
- the main components of milk and cheese (both curds and whey, proteins, fats, carbohydrates and minerals) and how they change through processing and ripening
- specifications of desired cheese product at each stage of making and ripening
- types of acid used for coagulation
- effects of pH and temperature on cheese processing performance and product quality
- microbial contaminants of cheese (lipolytic bacteria, yeasts, moulds, bacillus, listeria, Escherichia coli, salmonella, coliforms and staphylococci) and their impact on cheese quality
- sampling and testing procedures for microbes
- contamination risk of inoculants and contaminants
- yeasts and moulds and other microorganisms of significance in cheese making
- contamination and food safety risks associated with the process, and related control measures
- techniques used to monitor the cheese making process, such as inspecting, measuring and testing, as required by the process
- common causes of variation and corrective action required for each cheese making process

- organoleptic properties and their relationship to processes and ingredients in producing acid and heat coagulated cheese
- cleaning and sanitation procedures for cheese making
- work health and safety hazards and controls
- procedures for recording production and performance information
- environmental issues and controls relevant to the process, including waste collection and handling procedures related to the process
- Food Standards Code in relation to dairy processing
- state/territory, Commonwealth and industry requirements relevant to food processing.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
 - ingredients, production process and related equipment for acid and heat coagulated cheese
 - sampling and testing equipment and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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