



**Australian Government**

# **FBPFST5015 Implement and review the processing of chocolate**

**Release: 1**

# FBPFST5015 Implement and review the processing of chocolate

## 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 implement and review the manufacture of chocolate.

This unit applies to individuals who use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

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

Food science and technology (FST)

## 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 the manufacturing of chocolate    | 1.1 Identify the statutory compositional requirements for chocolate<br>1.2 Select the required formulation for the chocolate<br>1.3 Select the appropriate production system and a sequence of activity to prepare the system for operation<br>1.4 Prepare equipment and access safe operating procedure for its operation |

| Elements                                                                                           | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i>                                                   | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2. Carry out preparation and manufacture of quality chocolate products                             | 2.1 Implement the production schedule to ensure all resources and requirements are available and meet company requirements<br>2.2 Set the production system to operating specifications for mixing, refining, conching and storage of chocolate<br>2.3 Interpret and document data requirements for food safety, quality and production standards<br>2.4 Identify data collection points consistent with equipment capabilities and data requirements<br>2.5 Implement and monitor procedures to deal with non-conformance in relation to process and the final product<br>2.6 Implement and monitor process control system |
| 3. Diagnose, rectify and report problems arising from the preparation and manufacture of chocolate | 3.1 Identify defects in chocolate and the cause<br>3.2 Conduct a sensory analysis and analyse results<br>3.3 Implement adjustments to inputs, process and equipment to maintain quality of product<br>3.4 Report problems to designated person                                                                                                                                                                                                                                                                                                                                                                              |
| 4. Review production processes                                                                     | 4.1 Review the critical control points and critical limits for product safety<br>4.2 Review the operating procedures and the process control system for food safety and quality<br>4.3 Review the safe work systems for processing<br>4.4 Review environmental impacts and energy efficiencies for processing                                                                                                                                                                                                                                                                                                               |

## 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 | <ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product specifications, quality and workplace procedures</li> </ul> |

| Skill                      | Description                                                                                                                                                                              |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Numeracy                   | <ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul> |
| Navigate the world of work | <ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>                                           |
| Interact with others       | <ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>                                        |

## Unit Mapping Information

| Code and title current version                                 | Code and title previous version                                | Comments                                                                                                                                                            | Equivalence status |
|----------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| FBPFST5015<br>Implement and review the processing of chocolate | FDFST4034A<br>Implement and review the processing of chocolate | <p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p> <p>Unit code updated to reflect AQF level</p> | Equivalent unit    |

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5015 Implement and review the processing of chocolate

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## Performance Evidence

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

There must be evidence that the individual has effectively implemented and reviewed the processing of at least two different types of chocolate, including:

- selecting and planning the production process for each
- implementing production processes for each product, including mixing, refining, conching and storage
- monitoring the output of each of the processes used in the preparation and manufacture of chocolate
- recognising the organoleptic properties of different types of chocolate
- operating equipment and accessories for the preparation and manufacture of chocolate
- determining testing protocols for quality assessment
- completing data collection and documentation required for quality control
- assessing production procedures against food safety and quality requirements
- identifying and addressing defects during production and of final products.

## 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:

- critical factors in the preparation and manufacture of chocolate
- types of chocolate and compound chocolate and the ingredients used to manufacture each type
- crystallisation behaviour of fats, especially cocoa butter
- rheological properties of chocolate and compound chocolate as a liquid and the role of emulsifiers in these
- the role of particle size and particle size distribution on chocolate properties

- the production system for the preparation and manufacture of chocolate, including production instruction, quality assurance requirements and or/specifications, production specification and or/standards, production equipment, production procedures, cleaning procedures and materials and raw materials
- resource requirements and environmental impacts of the preparation and manufacture of chocolate
- identification of defects during production and of final products
- the statutory compositional requirements for the different types of chocolate
- stages of production, critical control points and critical limits
- quality and continuous improvement processes
- sensory analysis techniques
- health and safety in the workplace hazards and controls relating to work processes.

## 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 food production workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

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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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>