



Australian Government

FBPTEC4023 Control and monitor fermentation

Release: 1

FBPTEC4023 Control and monitor fermentation

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 fermented foods or beverages.

This unit applies to those workers who have responsibility for overseeing the production of fermented food and/or beverages and the quality assurance requirements associated with those products.

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

Technical (TEC)

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 fermentation	1.1 Identify and address requirements of Food Standards Code and local health department, for product 1.2 Identify hazards in the fermentation process and manage risks 1.3 Clean and sanitise equipment and environment 1.4 Confirm availability of raw materials and starter, as required

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.5 Check quality of raw materials meets specification for end product
2. Ferment food or beverage	2.1 Inoculate food or beverage product with starter, as required and mix 2.2 Add ingredients and adjuncts, specific to product 2.3 Set time, temperature and humidity for fermentation 2.4 Control process parameters to facilitate fermentation 2.5 Conduct in-production tests to monitor progress of fermentation 2.6 Analyse test results and adjust process as required 2.7 Stop fermentation process when food or beverage reaches target food safety parameters, and desired texture, taste and appearance 2.8 Record details of process for traceability, in line with organisational and regulatory requirements 2.9 Prepare product for packaging
3. Conduct final product testing	3.1 Collect and dispatch microbiological samples to check final product is safe for market 3.2 Conduct physical tests to check final product is safe for market 3.3 Conduct chemical tests to check final product is safe for market 3.4 Record results of tests in line with regulatory requirements 3.5 Take appropriate action based on test results
4. Conduct housekeeping activities	4.1 Clean equipment and work area in line with workplace procedures 4.2 Conduct routine maintenance activities 4.3 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
Numeracy skills	Convert units involving multiples and submultiples

Skill	Description
	• Use fractions, decimals, proportions and percentages to determine responses to results • Use volumes (ml, L) and weights (mg, g, kg) to describe product quantities • Calculate dose (mg), average mass, mass percentage, density, moisture, relative and absolute humidity • Determine ratios, such as mass to mass, mass to volume and volume to volume percentages • Calculate concentration, such as g/100mL, mg/L and dilution mL/L • Calculate salinity and water activity (Aw)
Get the work done	• Think through options to identify and respond to atypical results of tests • Trace and source obvious cause of artefact or malfunction

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4023 Control and monitor fermentation	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>