



Australian Government

Assessment Requirements for FBPTEC4023 Control and monitor fermentation

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.

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 controlled and monitored the fermentation of six different products, utilising three different fermentation categories from the following list:

- yeast
- bacteria
- fungi
- yeast and bacteria symbiotic culture of bacteria and yeast (SCOBY)
- combinations of fermentation organisms above relevant to product.

For each category utilised, there should be two products that show consistent colour, smell, texture, taste and appearance.

There must also be evidence that the individual can identify contamination or spoilage in each of the three categories chosen.

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:

- different starter organisms for fermentation
- licensing requirements for the production and sale of fermented food and beverage products
- specific starters used for different products, including yeast, bacteria, fungi, and yeast and bacterial SCOBY, or combinations of these relevant to product
- ideal temperature to promote successful fermentation, relevant to product
- specific starters used for different products, including SCOBY for kombucha
- natural starters versus commercial starters, and which are allowed under the Food Standards Code
- typical adjuncts added to the fermentation process

- essential ingredients for fermentation, including salt and sugar
- typical microbiological, chemical and physical tests carried out in production and on end products
- acceptable parameters for typical test results
- interpretation of test results, including simple calculations
- risks of pathogens, fungi, parasites and bacteria associated with fermentation processes
- instruments and measurements used for typical tests including thermometer probe, pH meter, hygrometer
- calibration requirements of measuring and testing equipment
- aerobic/anaerobic requirements for specific fermentation processes
- how to sanitise equipment and where necessary, ingredients
- how changes in pH indicate success or otherwise of the fermentation process
- air circulation requirements of specific products
- possible effects of temperature fluctuations, relative humidity and air circulation on product
- methods for controlling atypical outcomes of tests, relevant to process
- Food Standards Code and local health department requirements in relation to production and sale of fermented food and beverages, including local licensing requirements
- tensions between the Food Standards Code and the fermentation process
- waste handling and disposal requirements
- safe handling and transport procedures for samples to be tested at laboratory
- record keeping requirements for traceability of product.

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 fermented food or beverage production environment
- resources, equipment and materials:
 - raw materials and equipment to ferment food and/or beverage
 - testing equipment
- specifications:
 - specification for product.

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

Links

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