



Australian Government

**Assessment Requirements for FBPFST4004
Perform microbiological procedures in the
food industry**

Release: 1

Assessment Requirements for FBPFST4004 Perform microbiological procedures in the food industry

Modification History

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

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 safely and effectively performed microbiological procedures in the food industry, including:

- safely and effectively performing a minimum of three different multi-step tests to isolate bacteria
- safely isolating, identifying and cultivating microorganisms
- effectively setting up and using microscope slides and a microscope
- recognising the use of the Gram reaction in the identification of common types of bacteria
- identifying the need for certified laboratory testing
- accurately interpreting the results of tests carried out by a certified laboratory.

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:

- physiological characteristics of animal, plant and microbial cells
- microbiological terminology relevant to role
- use of protective clothing and biological safety cabinets
- aseptic sampling techniques
- disinfection and sterilisation as applied to practical aspects of microbiology
- microbial diversity and growth
- aseptic techniques used to cultivate and isolate microorganisms
- microorganisms of significance in the production and spoilage of foods
- chemical and physical methods available for controlling microbial growth
- methods for sterilisation or control of a given microorganism
- the Gram reaction in the identification of common types of bacteria
- purpose of the food tests conducted

- commonly used rapid test kits and their purpose
- rationale for sample dilution when preparing materials for enumerating organisms and other pure culture work
- forms of bacterial colonies on common media used in bacteriological investigations in the food industry
- impact of temperature conditions and gaseous environments on the growth of a range of common microorganisms
- health and safety in the workplace environmental, and quality assurance procedures commonly used in food testing laboratories.

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 food testing laboratory
- resources, equipment and materials:
 - personal protective equipment required to perform on-site microbiological procedures in the food industry
 - common laboratory equipment and a sufficient range of samples to allow microbiological procedures to be demonstrated
- specifications:
 - procedures and templates used to report relevant product and/or 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.

Links

Companion Volume Implementation Guides are found in VETNet: -

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