



Australian Government

Assessment Requirements for FBPFST4008 Preserve food in cans or sealed containers

Release: 1

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Modification History

Release	Comments
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 preserved two different foods in cans and/or sealed pouches, including:

- supervising the food preparation for each process
- supervising the set-up and operation of hermetically sealed packaging or canning equipment
- establishing the critical control points (CCPs) and critical limits
- calculating pressures, temperatures and cooking times to eliminate the risk of microbial spoilage for a canning or hermetic sealing operation, including:
 - calculated the Lethality value for a product
 - calculated the Fo value from available data by using the graphical integration method and the Gillespie method
 - calculated the Sterilisation value of process by using the trapezoidal method and the microorganism population method
 - calculated the Fh value for different container sizes
 - calculated the time it would take to reach a given temperature at the slowest heating point in a can
 - constructed confidence intervals for mean and standard deviation
 - computed 't-test'
 - read and interpreted 't-table'
 - determined significance of results using 't-test'
 - calculated X²
 - tested X² significance at 95 and 99%
 - monitored preserving process and recognised a process deviation.

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:

- definition of commercial sterility
- factors that impact the thermal process
- types of thermal processing systems
- the principles and purposes for blanching
- the function and use of each system
- the parts of a retort/cooker
- principles of thermal processing, including use of a retort
- aseptic technique for packaging food under aseptic conditions
- characteristics of two-piece and three-piece (seamed) cans
- dicing, slicing, blanching and brining processes
- the types microorganisms relevant to the canning of low acid foods, including their basic structure and growth patterns
- D-value of microorganisms
- low acid foods, acidification and their relationship to the growth of organisms
- critical control points in preservation process
- the chemical properties and application of chlorine in canning, and how it affects microorganisms
- methodology for the measurement of chlorine in cooling water
- D, Z, J, Fo and Fh values
- Thermal Death Rate, Lethality value and Sterilisation value
- confidence intervals and tests of significance
- approximation
- principles of variability
- principles of variance
- relevant legislation and regulations that apply to the canning process of low acid foods
- 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 processing workplace
- resources, equipment and materials:
 - personal protective equipment required for processing and sealing food into airtight containers
 - production process and related equipment, manufacturers' advice and operating procedures

- equipment and facilities for carrying out canning processes and testing of thermally processed products
- specifications:
 - methods and related software systems as required for carrying out food testing and preservation, and collecting data.

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>