



Australian Government

Assessment Requirements for FBPOPR2003 Prepare and monitor beer yeast propagation processes

Release: 1

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Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

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 prepared and monitored beer yeast propagation processes on at least one occasion, including:

- accessing workplace information to identify culture propagation requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary product, materials and services
- liaising with other work areas
- preparing product and materials, including:
 - culture yeast slopes
 - oxygenated wort
 - yeast nutrients
 - oxygen supply and sterilisation
 - wort heating
 - wort sterilisation
- confirming equipment status and condition, including checking:
 - cleaning and/or sterilisation requirements have been met
 - position and alignment of valves
 - integrity of door seals and small vessel tubing and condition of gas (oxy) filters
- starting up the process
- monitoring the process and equipment operation to identify out-of-specification results or non-compliance, including sampling and checking:
 - temperature (wort)
 - wort gravity
 - wort oxygenation levels
 - yeast cell counts
 - yeast viability

- monitoring supply and flow of product and materials to and from the process
- taking corrective action in response to out-of-specification results or non-compliance
- reporting and/or recording corrective action
- sorting, collecting, treating, recycling or disposing of waste
- shutting down equipment in response to an emergency situation
- shutting down equipment in response to routine shutdown requirements
- recording workplace information
- maintaining work area to meet housekeeping standards
- preparing equipment for cleaning, including draining and/or dismantling equipment, and removing waste either manually or by rinsing, in preparation for sanitation
- identifying, rectifying and/or reporting environmental non-compliance
- following relevant work health and safety procedures.

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:

- purpose and principles of propagating yeast cultures
- relationship of propagation to alcoholic fermentation
- stages and changes that occur during culture propagation
- effect of process stages on end product
- quality characteristics and uses of yeast cultures
- product and materials preparation requirements, and the effect of variation on the process
- main methods used in propagating yeast for beer production
- the fermentation reaction for yeast cultures
- techniques that may be used to manipulate the propagation process and end product characteristics, including:
 - temperature
 - yeast strain
 - wort stream
 - wort gravity
 - additions (nutrients)
 - oxygen
- process specifications, procedures and operating parameters relevant to beer yeast propagation
- equipment and instrumentation components, purpose and operation required for beer yeast propagation processes
- basic operating principles of process control systems
- services used in the beer yeast propagation processes
- significance and method of monitoring control points within the process
- common causes of variation with equipment and corrective action required
- work health and safety hazards and controls for beer yeast propagation processes

- lock-out and tag-out procedures required for beer yeast propagation processes
- procedures and responsibility for reporting problems relating to the beer yeast propagation processes
- environmental issues and controls relevant to yeast propagation processes
- shutdown and cleaning requirements associated with changeovers, and types of shutdowns
- waste handling requirements and procedures for beer yeast propagation processes
- recording requirements and procedures for beer yeast propagation processes.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - personal protective clothing and equipment
 - equipment, services and corresponding information
 - products and materials
 - cleaning procedures, materials and equipment
- specifications:
 - work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements
 - instructions, information, specifications and schedules
 - documentation and recording requirements and procedures

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>