Modification history

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

| FBPCEL2002 | Perform fermentation operations |
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| Application | This unit of competency describes the skills and knowledge required to prepare and operate the wine fermentation process. It may involve work in confined spaces.The unit applies to individuals who work in winemaking operations and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.All work must be carried out to comply with workplace procedures, in accordance with state/territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.  |
| Prerequisite Unit | Nil  |
| Unit Sector | Cellar Operations (CEL) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare for fermentation operations | 1.1 Identify and confirm fermentation requirements1.2 Confirm availability of required materials and services to meet fermentation operations requirements1.3 Confirm environmental guidelines and identify potential workplace health and safety hazards and controls according to workplace procedures 1.4 Select and fit personal protective equipment required for fermentation operations 1.5 Prepare materials to meet production requirements1.6 Check equipment to confirm readiness for use according to workplace procedures1.7 Set the process to meet production requirements |
| 2. Operate and monitor fermentation operations | 2.1 Start up the fermentation process according to workplace procedures2.2 Monitor production process to confirm fermentation operation meets specifications2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures  |
| 3. Complete fermentation operations | 3.1 Identify and implement appropriate shutdown procedures3.2 Dismantle equipment safely and prepare for cleaning3.3 Collect, treat and dispose of or recycle waste generated by both the fermentation process and cleaning procedures3.4 Record workplace information according to workplace procedures |

| Foundation SkillsThis 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. |
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| Skill | Description |
| Reading | * Comprehend instructions in workplace documents
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| Writing | * Complete workplace documents in required format
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| Numeracy | * Perform calculations required to prepare production materials for the process
* Monitors supply and flow of materials to and from the process
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| Navigate the world of work | * Apply workplace procedures to own role and responsibilities
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| Interact with others | * Use required communication mode to report operational information to relevant personnel
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| Get the work done | * Plan, sequence and implement tasks according to set routines and procedures
* Respond to routine problems by referring to workplace procedures
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| Unit Mapping Information |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FBPCEL2002 Perform fermentation operations | FDFCEL2002A Perform fermentation operations | Updated to meet Standards for Training PackagesMinor changes to elements and performance criteria for clarityRemoval of prerequisite as no longer required by industry | Equivalent unit |

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

| TITLE | Assessment requirements for FBPCEL2002 Perform fermentation operations |
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| 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 performed at least one fermentation operation including:* accessing workplace information to identify fermentation processing requirements
* selecting and fitting appropriate personal protective equipment
* checking supply and status of materials before commencing fermentation operation
* preparing and confirming status of equipment and services before commencing fermentation process
* setting up and starting the fermentation process
* monitoring the fermentation process
* taking corrective action in response to non-conformance results
* shutting down the process after fermentation operations are completed
* conducting work according to environmental and workplace health and safety requirements.
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| Knowledge Evidence |
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| 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 of the fermentation process and the links between fermentation and other processes used in wine operations
* basic operating principles of fermentation equipment
* materials used in the fermentation process including:
* grape varieties, whole fruit bunches and common additives
* preparation requirements and effect of variation on the fermentation process
* main fermentation techniques and how these techniques can affect the characteristics of the wine
* product, materials and equipment preparation requirements and effect of variation on the fermentation process
* techniques that may be used to manipulate the fermentation process and wine characteristics, including:
* pressure
* temperature
* yeast variety or strain
* CO2
* skin contact
* type of fermentation vessel
* additions
* methods used to monitor the process
* common causes of non-conformance results for product, process and equipment and corrective action required including:
* issues that can be rectified
* issues that must be reported
* responsibilities for workplace health and safety including:
* workplace health and safety hazards associated with the fermentation process
* methods for controlling risks associated with work health and safety hazards, including confined space entry
* responsibilities for identifying and controlling environmental issues
* workplace procedures and responsibility for:
* reporting problems
* shutting down the process
* cleaning
* handling waste
* recording required information.
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| Assessment Conditions |
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| Assessment of skills must take place under the following conditions: * physical conditions:
* a wine operations workplace or an environment that accurately represents workplace conditions
* resources, equipment and materials:
* personal protective equipment for fermentation operations
* equipment and materials for fermentation process
* system for recording and reporting information
* specifications:

workplace procedures for fermentation operationsAssessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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