



**Australian Government**

# **FBPGRA3019 Prepare malted grain**

**Release: 1**

## FBP GRA3019 Prepare malted grain

### Modification History

| Release   | Comments                                                                                       |
|-----------|------------------------------------------------------------------------------------------------|
| Release 1 | This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 6.0. |

### Application

This unit of competency describes the skills and knowledge required to operate commercial equipment associated with preparing malted barley or wheat. It covers operating and monitoring steeping, germinating and kilning equipment.

The unit applies to operators in commercial malting plants who are responsible for converting stored grain into malted barley or wheat. These operators are often known as maltsters.

All work must be carried out to comply with workplace procedures according to state/territory health and safety and food safety regulations, legislation and standards that apply to the workplace.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain Processing (GRA)

### Elements and Performance Criteria

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                               |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                             |
| 1. Steep grain                                   | 1.1 Identify work requirements with relevant personnel, including batch requirements for steeping, germination, kilning and malt cleaning processes<br>1.2 Select, fit and use personal protective equipment according to workplace health and safety requirements |

| <b>Elements</b>                                  | <b>Performance Criteria</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                  | 1.3 Confirm equipment status and condition<br>1.4 Set up, start and monitor equipment according to operating procedures<br>1.5 Transfer grain from storage into steeping equipment according to workplace procedures<br>1.6 Place hoses or other wetting equipment correctly to ensure uniform hydration and to avoid damage to grain<br>1.7 Immerse, drain and rest grain for the specified number of cycles<br>1.8 Monitor moisture content of grain during air resting to determine when it is ready for transfer to germination vessels<br>1.9 Discharge wastewater to treatment or holding or other facilities according to workplace procedures |
| 2. Germinate grain                               | 2.1 Feed grain into germination vessel or floor according to workplace procedures<br>2.2 Set up, operate and monitor turning and air blowing equipment to meet safety and production requirements<br>2.3 Monitor green grain for humidity, temperature, moisture, chitting or acrospires, and general condition<br>2.4 Adjust rate of turning, humidity and temperature according to specifications for malt type<br>2.5 Transfer modified green grain to kiln according to specifications for malt type and results of laboratory testing                                                                                                            |
| 3. Operate kiln to produce malt                  | 3.1 Conduct first drying of modified grain<br>3.2 Confirm germination has stopped according to workplace procedures<br>3.3 Cure modified grain through correct combination of air flow and heat for malt product specification<br>3.4 Confirm colour, moisture content and other required specifications<br>3.5 Clean the malt according to workplace procedures and food safety requirements<br>3.6 Transfer separated culm to storage according to workplace procedures<br>3.7 Transfer malt to storage according to workplace procedures<br>3.8 Complete processing records according to workplace procedures                                      |

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                      |
| 4. Shut down process and complete work           | 4.1 Identify appropriate shutdown procedure<br>4.2 Shut down process safely according to operating procedures<br>4.3 Clean and sanitise equipment according to workplace health and safety and food safety procedures<br>4.4 Identify and report maintenance requirements according to workplace procedures |

## Foundation Skills

*This 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.*

| Skill    | Description                                                                                                                                                                                                                                                                                                                                                                                               |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading  | <ul style="list-style-type: none"> <li>Interpret workplace environmental procedures and controls</li> <li>Interpret waste handling requirements and procedures</li> <li>Interpret directions for the safe operation of equipment</li> </ul>                                                                                                                                                               |
| Writing  | <ul style="list-style-type: none"> <li>Record product and processing information using digital and/or paper-based formats</li> </ul>                                                                                                                                                                                                                                                                      |
| Numeracy | <ul style="list-style-type: none"> <li>Identify batch and recipe specifications</li> <li>Accurately measure goods by weight (kg, T) and volume (m3)</li> <li>Achieve specified moisture content in grain through correct combinations of water and air steeping cycles</li> <li>Correctly adjust kiln heat settings for drying or curing and for different types and grades of barley and malt</li> </ul> |

## Unit Mapping Information

| Code and title current version      | Code and title previous version     | Comments                                                  | Equivalence status |
|-------------------------------------|-------------------------------------|-----------------------------------------------------------|--------------------|
| FBP GRA3019<br>Prepare malted grain | FBP GRA2012<br>Prepare malted grain | Unit code updated to better match complexity of work task | Equivalent         |

| Code and title<br>current version | Code and title<br>previous version | Comments                                                                                                                                                                                                                       | Equivalence status |
|-----------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|                                   |                                    | Prerequisite removed<br>Minor changes to<br>Performance Criteria to<br>clarify intent<br>Foundation Skills refined<br>Performance Evidence<br>clarified<br>Minor changes to<br>Knowledge Evidence and<br>Assessment Conditions |                    |

## Links

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