



Australian Government

FBPGRA4005 Lead flour milling shift operations

Release: 1

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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 lead milling operations during a shift, including acting as a technical resource to other mill employees.

This unit applies to a miller who is responsible for the flour mill operations during a shift, and relates to the milling of all grains for flour and other milling processed food and non-food products.

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. Establish shift operating environment	1.1 Identify products and quantities to be produced by mill during shift 1.2 Identify from authorised suppliers the supplier of grain used during shift and the varieties supplied 1.3 Apply required costing and control procedures to achieve set key

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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	performance indicators (KPIs) 1.4 Establish range of available equipment and any unique design or operating factors 1.5 Identify staffing and work organisation for shift 1.6 Identify any budget and/or budget operating procedures relevant for shift operations
2. Monitor quality during shift	2.1 Identify specifications for flour to be produced during shift 2.2 Identify performance indicators and production targets for mill and mill departments during shift 2.3 Supervise testing regime for mill during shift 2.4 Monitor performance against targets and indicators 2.5 Report non-conformances and take appropriate corrective actions
3. Set and supervise grain supply and intake procedures	3.1 Supervise grain receipt operations, including compliance with instructions for rejected deliveries 3.2 Set screening criteria and procedures for re-use of screenings 3.3 Set blending criteria for holding bins/silos
4. Set and supervise grain conditioning process and specifications	4.1 Specify and communicate grain cleaning requirements to operators 4.2 Set water volume for each grain batch 4.3 Set conditioning time per batch 4.4 Determine any blending and treatment criteria 4.5 Monitor tests and specifications for conditioned grain 4.6 Supervise transfer to storage or mill
5. Supervise production	5.1 Identify shift production targets 5.2 Obtain or determine product specifications 5.3 Formulate and supervise preparation of grist 5.4 Supervise milling of different grains 5.5 Set blending requirements, including any use of additions and adjuncts 5.6 Allocate production specifications for shift to departments 5.7 Ensure production records are kept

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.8 Monitor production against targets
6. Integrate maintenance schedule with shift operations	6.1 Identify shift preventative maintenance requirements from maintenance department and/or equipment suppliers 6.2 Supervise equipment monitoring and maintenance responsibilities for operators, maintenance department and other staff 6.3 Identify and approve timing for any regular maintenance activities that will disrupt production 6.4 Supervise breakdown notification and repair procedures
7. Implement risk management procedures	7.1 Supervise implementation of workplace health and safety and dust control procedures 7.2 Monitor Hazard Analysis and Critical Control Points (HACCP) procedures during shift 7.3 Monitor compliance with environmental and sustainability regulations and targets 7.4 Monitor operations against any required regulatory compliance, including required reporting procedures
8. Provide guidance to other mill employees	8.1 Monitor and maintain standard operating procedures (SOPs) 8.2 Supervise any required training for employees during shift operations 8.3 Ensure availability of reference materials 8.4 Implement communication and feedback mechanisms to and from employees

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	Interpret food safety, food labelling and other regulations affecting flour mills
Oral communication	Communicate production requirements and technical information

Skill	Description
	- to other employees • Use effective communication skills to allocate tasks and provide feedback to team members • Liaise with other departments on flour product requirements
Writing	• Record flour milling operations using digital and/or paper-based formats
Numeracy	• Calculate water required to achieve target moisture content, extraction rates, protein loss for each grist, and milling gains/losses

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA4005 Lead flour milling shift operations	FBPGRA3003 Lead flour milling shift operations	Unit code updated to reflect complexity of task Foundation Skills refined	Equivalent

Links

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

Assessment Requirements for FBPGRA4005 Lead flour milling shift 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 led flour milling shift operations on at least one occasion, including:

- interpreting production requirements and grain tests for desirable mill settings
- establishing shift operating environment, including required equipment, staffing and work organisation, and costing requirements
- monitoring quality of shift operations, including identifying specifications for product to be produced, identifying performance indicators, supervising testing of product, monitoring performance and reporting non-conformances
- assisting employees with conduct and interpretation of grain and flour tests
- matching grain receipt, screening and storage processes to production requirements during shift
- preparing or supervising production of grist according to recipes
- setting and managing milling and blending operations
- supervising dust control, Hazard Analysis and Critical Control Points (HACCP) and health and safety procedures during shift operations
- identifying equipment maintenance 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:

- differences in types of milling processes, including differences in milling of different grains, varieties and milling for flour or for semolina
- process and purpose of flour milling, including:
 - opening of grain to enable removal of endosperm
 - separation of bran

- grinding of endosperm to flour, including sifting of ground stock to remove oversize endosperm particles, flour, or any bran and endosperm that has not been ground
- kibbling
- middlings and semolina process
- methods used to establish the most economic grist for a particular flour, including the balancing of flour specification, grain availability and cost of grain available
- financial impacts of mill performance/settings
- principles of preventative maintenance, including failure mode and effects analysis (FMEA)
- food safety, food labelling and other regulations affecting flour mills
- grain varieties and specifications
- flour types and specifications
- food labelling regulations relevant to flour products
- HACCP principles and procedures
- dust control procedures
- health and safety standards and requirements
- environmental regulations relevant to flour milling
- feedback techniques
- enterprise budget operating procedures
- procedures to track traceability of product.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - a flour mill or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - personal protective equipment
 - break and reduction roll equipment and related services
 - conditioned grain suitable for the break and reduction roll process
 - sampling schedules, and test procedures and equipment
 - cleaning procedures, materials and equipment
- specifications:
 - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
 - equipment manuals, including operating parameters
 - specifications, control points and processing parameters
 - documentation and recording requirements and procedures.
- relationships:
 - operators/team members.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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