



Australian Government

FBPGRA3018 Operate and monitor a pelleting process

Release: 1

FBPGRA3018 Operate and monitor a pelleting process

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 set up, operate, adjust and shut down process equipment to compress mash into pellets and to finish pellets.

The unit applies to individuals who work in an animal feed production environment. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of pelleting equipment and processes.

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. Prepare the pelleting equipment and process for operation	1.1 Confirm materials are available to meet product specification requirements 1.2 Select, fit and use personal protective equipment 1.3 Identify and confirm cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	been met according to health, safety and food safety requirements 1.4 Fit and adjust machine components and related attachments according to product specification and operating requirements 1.5 Enter processing or operating parameters to meet safety and production requirements 1.6 Carry out pre-start checks according to operator instructions
2. Operate and monitor equipment	2.1 Start and operate process according to safe operating procedures 2.2 Monitor equipment to ensure optimal operations 2.3 Identify variation in equipment operation, troubleshoot to identify solution, and adjust 2.4 Confirm product specifications are being met at each stage according to production specifications 2.5 Identify, rectify or report out-of-specification product or process outcomes 2.6 Maintain the work area according to safe work and food safety procedures 2.7 Maintain workplace records, including traceability and biosecurity records, according to workplace procedures
3. Shut down the pelleting process	3.1 Identify appropriate shutdown procedure 3.2 Shut down process safely according to operating procedures 3.3 Identify and report maintenance requirements records according to workplace procedures 3.4 Ensure waste is disposed of in line with environmental requirements

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 directions for the safe operation of equipment

Skill	Description
	Operate equipment using digital interface
Writing	Complete processing records using digital and/or paper-based formats
Numeracy	- Monitor supply of ingredients to pelletiser - Set shape of rotor for pellets - Interpret gauges for monitoring equipment operation

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3018 Operate and monitor a pelleting process	FBPGRA2009 Operate a pelleting process	Unit title and code updated to better match work task Minor changes to Performance Criteria to clarify intent Foundation Skills refined Performance Evidence clarified Minor changes to Knowledge Evidence and Assessment Conditions	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 FBPGRA3018 Operate and monitor a pelleting process

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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 operated and monitored a pelleting process to produce at least one batch of pellets to meet product specification, including:

- applying safe work practices
- applying food safety procedures to work practices
- checking quality of pellets meets specifications
- taking corrective action in response to typical faults and inconsistencies.

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 basic principles of each part of the process, including volumetric metering, steam conditioning, pellet formation, cooling, crumbling and sieving and post-pelleting liquid addition
- basic operating principles of equipment, including:
 - main equipment components
 - status and purpose of guards
 - equipment operating capacities and applications
 - the purpose and location of sensors and related feedback instrumentation
- services required, and action to take if services are not available
- good manufacturing practices (GMP) relevant to work task
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- the flow of the pelleting process and the effect of outputs on downstream processes
- quality characteristics and uses of finished pellets
- effect of variation in inputs and/or services on process performance

- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- the effect on final product of variation in variables, including:
 - pellet diameter to length ratios
 - oil and fat content
 - retention time and temperatures for steam conditioning, including consequences of temperatures that are too high and too low on chemical composition
 - retention time and temperature for liquid addition
- typical equipment faults and related causes, including:
 - signs and symptoms of faulty equipment
 - early warning signs of potential problems
- methods used to monitor the pelleting process, including inspecting, measuring and testing
- inspection or test points (control points) in the process and the related procedures and recording requirements
- common causes of variation, and corrective action required
- contamination/cross-contamination and food safety risks related to the pelleting and pellet finishing process, and related controls
- health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace pelleting requirements, including:
 - emergency and routine shutdowns
 - procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls, including waste/rework collection and handling procedures
- routine maintenance procedures for pelletiser
- cleaning and sanitisation procedures for work space and equipment
- procedures to track traceability of product
- procedures to ensure biosecurity requirements are met.

Assessment Conditions

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

- physical conditions:
 - an animal feed processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - personal protective equipment
 - production schedule/batch instructions

- pelletiser, pellet finishing equipment and related services
- feed/mass to be pelleted
- specifications:
 - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
 - information on equipment capacity and operating parameters.

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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