



Australian Government

FBPGRA2009 Operate a pelleting process

Release: 1

FBPGRA2009 Operate a pelleting process

Modification History

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

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 a stockfeed 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, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational 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 according to operating requirements 1.2 Identify and confirm cleaning and maintenance requirements have been met according to food safety requirements 1.3 Select, fit and use personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Fit and adjust machine components and related attachments according to operating requirements 1.5 Enter processing or operating parameters to meet safety and production requirements 1.6 Check and adjust equipment performance to ensure optimum 1.7 Carry out pre-start checks according to operator instructions
2. Operate and monitor the pelleting process	2.1 Start and operate the process according to work health and safety and operating procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Confirm that 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 work health and safety and operating procedures 2.7 Maintain workplace records according to workplace procedures
3. Shut down the pelleting process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Identify and report maintenance requirements records 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	Interpret directions for the safe operation of equipment
Writing	Record out-of-specification product on paper based and electronic media

Skill	Description
	Record maintenance requirements on paper based and electronic media
Numeracy	- Monitor supply of liquid ingredients to post-mixing process - Interpret gauges for monitoring equipment operation
Navigate the world of work	- Apply workplace procedures to own role and responsibilities - Understand tasks and responsibilities required for performing own role in the workplace - Ask questions to clarify understanding or seek further information
Interact with others	- Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor - Communicate and report operational and safety information to relevant personnel
Get the work done	- Maintain a clean and hazard-free work area - Maintain hygiene standards and wear required personal protective equipment - Identify faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems - Maintain quality requirements for the sanitisation and use of equipment

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2009 Operate a pelleting process	FDFGR2009A Operate a pelleting process	Updated to meet Standards for Training Packages	Equivalent unit

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 FBPGRA2009 Operate 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, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for pelleting
- selected, fitted and used personal protective equipment
- started, operated, monitored and adjusted process equipment to compress mash into pellets and to finish pellets to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records as required
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

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
- 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 as required by the process
- 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 risks related to the pelleting and pellet finishing process and related controls
- work 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 operating a pelleting process
- cleaning and sanitation procedures for operating a pelleting process.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - personal protective clothing and equipment required to stockfeed inputs and additives

- personal protective clothing and equipment required to set up, operate, adjust and shut down a separation process
- production schedule/batch instructions
- pelleting, pellet finishing and related equipment and 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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