



Food Processing Industry

FDF 98

Stockfeed Competency Units

**NATIONAL FOOD INDUSTRY
TRAINING COUNCIL**

Qualification	Code
Certificate III in Food Processing	FDF30198
Certificate II in Food Processing	FDF20198
Certificate I in Food Processing	FDF10198

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Operate a grinding process

FDF SFDC1 A

Locate industry and company products and processes (Stockfeed Milling)

Descriptor

This is a specialist unit that has been customised for the stockfeed milling sector. It covers the products and processes used in their workplace.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Processes and procedures are carried out within company policy and procedures and legislative requirements
- Stockfeed milling processes may include grain cleaning, pre-mixing, batching and mixing, grain and pulse sizing, pellet pressing and finishing, extruding
- Product for the stockfeed milling system is stored and supplied through a silo/bin system

Element	Performance criteria	Evidence guide – Part A
Identify products and quality products	<p>Company product range is identified</p> <p>Quality requirements of final products are identified in accord with company standards</p>	<p>Part A of the Evidence guide identifies the knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. It should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> – access workplace information to identify materials and production requirements – identify and locate materials used in the work process – identify and locate production and/or packaging stages and processes in the workplace – comply with OHS and food safety requirements when moving around the workplace
Identify and locate production and packaging processes	<p>Raw materials and related handling systems are located and operated as required</p> <p>Production and packaging stages and processes are identified</p> <p>Equipment used for each stage is located</p>	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – range of final products produced by the company – basic understanding of brand image, company goals and philosophy – quality requirements/specifications for final products – consequences of product failing to meet quality requirements – stages and processes used to manufacture product – basic purpose of equipment used at each stage – outputs at each stage of the process (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
		<p><i>Underpinning knowledge: (continued)</i></p> <ul style="list-style-type: none"> – raw materials/consumables used – preparation, packaging, handling and storage of finished product prior to sale – OHS, quality, food safety and environmental requirements relating to own work

Evidence guide – Part B

Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.

Assessment context

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to describe stockfeed milling products and processes given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production systems, stages and processes
- raw materials, in-process and finished product requirements and/or specifications

Relationship to other units

Co-requisites:

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

Relationship to learning resources

Main learning resources:

- Introductory Milling A (Stockfeed milling)

- Introductory Milling B (Stockfeed milling)

Related learning resources:

- Industrial Communication A
- Calculations A
- Occupational Health and Safety A
- Quality Assurance A
- Food Safety A (Hygiene and Sanitation A)

FDG SFGP2 A
Operate a grinding process

Descriptor This is a specialist unit that has been developed for the stockfeed milling sector. It involves reducing the particle size of grains and pulses by processes such as grinding, rolling and breaking.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- Equipment used in the grinding process may include conveyors/elevators, augers, magnets, fans, sieves, hammer mills, roller mills, breaker bars, cyclones
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Materials include grains and pulses. Pulses are legumes and typically include peas, beans, lentils
- Material for sizing is normally supplied from bulk storage [silos, bins]
- Services may include power, fuel, vacuum and compressed and instrumentation air, steam
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the grinding process for operation	<p>Stock for sizing is confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The grinding process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B outlines how this guide is to be applied. It should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> – access workplace information to identify production requirements for the grinding process – select, fit and use personal protective clothing and equipment – confirm supply of necessary materials and services to the grinding process – confirm equipment status and condition – set up and start up the process. This can involve the use of process control systems – operate stockfeed control panel to transfer and size product – monitor the grinding process and equipment operation to identify out-of-specification results or non-compliance. This may include running adjustments to hammer mills and roller mills (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the grinding process	<p>The grinding process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specifications</p> <p>Equipment is monitored to confirm operating condition</p> <p>Ground material meets specifications</p> <p>Stock to and from the grinding process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the process is monitored and cleared according to company procedures</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor supply and flow of materials to and from the grinding process – take corrective action in response to out-of-specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down grinding equipment in response to an emergency situation – shut down grinding equipment in response to routine shutdown requirements – prepare grinding equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the ability to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the grinding process – relationship between the grinding process and other stockfeed milling processes – stages and changes which occur during sizing – effect of the grinding process on the end product – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the grinding process
Shut down the grinding process	<p>The grinding process is shut down according to company procedures</p> <p>Waste generated by both process and cleaning is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – macro-ingredients which can be reduced to a suitable form for stockfeed – benefits of grinding and rolling – air systems for stockfeed equipment – operation of dust collection system – principles of dust explosion – location of magnets and frequency of checking – services used in the grinding process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures
Record information	<p>Workplace information is recorded in the appropriate format</p>	<p>(cont.)</p>

Element	Performance criteria	Evidence guide – Part A
		<p><i>Underpinning knowledge: (continued)</i></p> <ul style="list-style-type: none"> – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeover and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a grinding process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- grinding equipment
- services as required
- stock required for the grinding process
- stock flow system
- related work areas and communication system

- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and in-process testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of operating a grinding process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Stockfeed Grain and Pulse Sizing

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B

Descriptor This is a specialist unit that has been developed for the stockfeed milling sector. It involves compressing mash into stockfeed pellets.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- The pelleting process may, depending on the finished product requirements, include conditioning, pelleting,
- Pelleting equipment may include bins, feeder screw, conditioner and temperature gauges, amp gauges, expanders, pellet press, stock transfer equipment
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Stock for the pelleting is supplied from mash bins
- Services may include power, fuel, vacuum and compressed and instrumentation air, steam
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
<p>Prepare the pelleting process for operation</p>	<p>Stock is confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The pelleting process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B outlines how this guide is to be applied. It should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> - access workplace information to identify production requirements for the pelleting process - select, fit and use personal protective clothing and equipment - confirm supply of necessary materials and services to the pelleting process - confirm equipment status and condition - set up and start up the process. This can involve the use of process control systems - monitor the pelleting process and equipment operation to identify out-of-specification results or non-compliance. This may include die changes, roll setting and other running adjustments to pelleting equipment (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the pelleting process	<p>The pelleting process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specifications</p> <p>Equipment is monitored to confirm operating condition</p> <p>Pelleted product meets specifications</p> <p>Stock to and from the pelleting process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the process is monitored and cleared according to company procedures</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor supply and flow of materials to and from the pelleting process – take corrective action in response to out-of-specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down pelleting equipment in response to an emergency situation – shut down pelleting equipment in response to routine shutdown requirements – prepare pelleting equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles of the pelleting process
Shut down the pelleting process	<p>Pelleting process is shut down according to company procedures</p> <p>Waste generated by both process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – reason for producing pellets – relationship between the pelleting process and other stockfeed milling processes – stages and changes which occur during pelleting – effect of pelleting process on the end product – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components,

Record information	Workplace information is recorded in the appropriate format	<p>purpose and operation</p> <ul style="list-style-type: none"> – significance and methods of monitoring control points within the pelleting process – operation of expanders – principles of the steam addition system – microbiological considerations in pelleting – services used in the pelleting process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns (<i>cont.</i>)
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Element	Performance criteria	Evidence guide – Part A
		<p><i>Underpinning knowledge: (continued)</i></p> <ul style="list-style-type: none"> – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a pelleting process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- pelleting equipment
- services as required
- stock required for the pelleting process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units are an integral part of operating a pelleting process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Stockfeed Pelleting and Finishing

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B

Descriptor

This is a specialist unit that has been developed for the stockfeed milling sector. It involves using cooling and/or crumbling and/or sieving processes to produce pellets or crumbles to production specifications.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- The pellet finishing process may include, depending on the finished product requirements, cooling, crumbling, sieving
- Pellet finishing equipment may include coolers, crumble rolls, screens/sieves/shakers, pellet coating equipment, stock transfer equipment
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Stock for the pellet finishing is supplied from pellet press
- Services may include power, fuel, vacuum and compressed and instrumentation air, steam
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the pellet finishing process for operation	<p>Stock is confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The pellet finishing process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B outlines how this guide is to be applied. It should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> - access workplace information to identify production requirements for the finishing process - select, fit and use personal protective clothing and equipment - confirm supply of necessary materials and services to the finishing process - confirm equipment status and condition - set up and start up the process. This can involve the use of process control systems - monitor the finishing process and equipment operation to identify out-of-specification results or non-compliance - monitor supply and flow of materials to and from the finishing process (<i>cont</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the pellet finishing process	<p>The pellet finishing process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specifications</p> <p>Equipment is monitored to confirm operating condition</p> <p>Pelleted product meets specifications</p> <p>Stock flow to and from the pellet finishing process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the process is monitored and cleared according to company procedures</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – take corrective action in response to out-of-specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down finishing equipment in response to an emergency situation – shut down finishing equipment in response to routine shutdown requirements – prepare finishing equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the finishing process – reason for cooling, crumbling and sieving – relationship between the pellet finishing process and other stockfeed milling processes – stages and changes which occur during finishing – effect of finishing process on the end product – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the finishing process – services used in the finishing process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeover and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures
Shut down the pellet finishing process	<p>Pellet finishing process is shut down according to company procedures</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – stages and changes which occur during finishing – effect of finishing process on the end product – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the finishing process – services used in the finishing process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeover and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures
Record information	Workplace information is recorded in the appropriate format	<ul style="list-style-type: none"> – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeover and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food processing industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a pellet finishing process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- extrusion equipment
- services as required
- stock required for the pellet finishing
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system
- Operate a pelleting process

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of operating a pellet finishing process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Stockfeed Pelleting and Finishing

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B

Descriptor	This is a specialist unit that has been developed for the stockfeed milling sector. It involves processing product through an extrusion process to create finished product to customer specifications.
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Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- The extrusion process may include feeding/dosing, preconditioning, extruding, drying, coating, cooling, screening/sieving, binning/bagging processes
- Extrusion equipment may include bins, variable feeders/dosers, pre-conditioners, cookers, extruders, dryers, coolers, oil coating system, sieves
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Services may include power, fuel, vacuum and compressed and instrumentation air, steam
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the extrusion process for operation	<p>Stock is confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for extrusion operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The extrusion process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B outlines how this guide is to be applied. It should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> – access workplace information to identify production requirements for the extrusion process – select, fit and use personal protective clothing and equipment – confirm supply of necessary materials and services to the extrusion process – confirm equipment status and condition – set up and start up the process. This can involve the use of process control systems – monitor the extrusion process and equipment operation to identify out-of-specification results or non-compliance – monitor supply and flow of materials to and from the extrusion process – take corrective action in response to out-of-specification results or non-compliance (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the extrusion process	<p>The extrusion process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specifications</p> <p>Equipment is monitored to confirm operating condition</p> <p>Extruded product meets specifications</p> <p>Product placed in bulk storage and/or bagged to customer requirements</p> <p>Stock flow is maintained to and from extrusion process within production parameters</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down extrusion equipment in response to an emergency situation – shut down extrusion equipment in response to routine shutdown requirements – prepare extrusion equipment for cleaning – maintain work area to meet housekeeping standards – Record workplace information <p>May include to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the extrusion process – relationship between the extrusion process and other stockfeed milling processes – stages and changes which occur during extrusion – effect of extrusion process on the end product – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the extrusion process – services used in the extrusion process – common causes of variation and corrective action required
Shut down the extrusion process	<p>Extrusion process is shut down according to company procedures</p> <p>Waste generated by both process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures
Record information	<p>Workplace information is recorded in the appropriate format</p>	<p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context..
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate an extrusion process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- extrusion equipment
- services as required
- stock required for the extrusion process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system
- Operate a pelleting process
- Operate a pellet finishing process

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of operating an extrusion process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Stockfeed Extrusion

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B

Descriptor

This is a specialist unit that has been developed for the stockfeed milling sector. It involves handling the bulk and bagged raw materials intake, sampling and testing and maintaining a contamination/ infestation free storage and work area.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- The raw materials receival equipment may include weighbridge, mechanical/pneumatic stock transfer equipment, sampling and testing equipment (for example, moisture meter, infra analyser, chronometer, balance, sieves, probes, spears)
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Groups of stockfeed raw materials include micro-ingredients (for example, vitamins, minerals, medication), macro-ingredients (for example, grains, meals heavy goods), liquid ingredients (for example, molasses, tallow)
- Grain intake may include cereals, pulses, pasture seeds
- Sampling and testing may include moisture, grain density, pesticide and chemical residues/contamination, fungi, protein, foreign mater
- Storage types include bunkers, silos, bulk sheds, bags
- Services may include power, fuel, vacuum and compressed and instrumentation air, steam
- Control points refer to those key points in a work process that must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Contaminants and factors that cause deterioration may include moulds, moisture, mites, fungal diseases, pests
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the raw materials receival process for operation	<p>Services are confirmed as being ready for operation</p> <p>Equipment is checked to readiness for use</p> <p>The goods receival system is set to receive bulk and packaged/bagged raw materials</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B outlines how this guide is to be applied. It should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> - access workplace information to identify production requirements for the raw materials receival process - select, fit and use personal protective clothing and equipment - receive bulk and bagged/packaged raw materials delivered to plant - confirm equipment status and condition - set up and start up the receival process. This can involve the use of control systems <p><i>(cont.)</i></p>

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the raw materials receival process	<p>The raw materials receival process is started up to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specifications</p> <p>Equipment is monitored to confirm operating condition</p> <p>Incoming raw materials are received, sampled, tested and stored according to handling requirements</p> <p>Contamination/infestation is identified and removed from the raw materials receival area according to stock control requirements</p> <p>Stock flow from raw materials storage is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the process is monitored and cleared according to company procedures</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor the materials receival process and equipment operation to identify out-of-specification results or non-compliance. This includes collecting samples and conducting in-process tests to monitor product quality – monitor supply and flow of stock to and from the goods receival process – take corrective action in response to out-of-specification results or non-compliance. This may include identifying and reporting infestation and illegal raw materials – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down materials receival equipment in response to an emergency situation – shut down goods receival equipment in response to routine shutdown requirements – prepare goods receival equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the goods receival process – principles of operation of the raw goods storage system – relationship between the goods receival process and other stockfeed milling processes – stages of the materials receival process – effect of goods receival process on the end product – groups/types of raw materials and their quality characteristics – specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – sampling and testing requirements and procedures
Shut down the raw materials receival process	<p>Raw materials receival process is shut down according to company procedures</p> <p>Waste generated by both process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – significance and methods of monitoring control points within the materials receival process – services used in the materials receival process – common causes of variation and corrective action required – pest control responsibilities and procedures – OHS hazards and controls – lock out and tag out procedures (<i>cont.</i>)
Record information	Workplace information is recorded in the appropriate format	

Element	Performance criteria	Evidence guide – Part A
		<p><i>Underpinning knowledge: (continued)</i></p> <ul style="list-style-type: none"> – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance Criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence Guide
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a raw materials receipt process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedules
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- materials receipt equipment
- services as required
- materials flow systems
- related work areas and communication system

- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units are an integral part of a raw materials receival process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Stockfeed Raw Materials Handling System

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B

Descriptor This is a specialist unit that has been developed for the stockfeed milling sector. It involves combining additives and ingredients into a pre-mix that in turn can be used as an ingredient base in the preparation of final products.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- The pre-mix equipment may include mixers, sieves
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Materials used in pre-mix may include micro-mixes, micro additives, micro ingredients, macro ingredients
- Services may include power, fuel, vacuum and compressed and instrumentation air, steam
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the pre-mix process for operation	<p>Materials are confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The pre-mix process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B outlines how this guide is to be applied. It should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> - access workplace information to identify production requirements for the pre-mix process - select, fit and use personal protective clothing and equipment - confirm supply of necessary materials and services to the pre-mix process - confirm equipment status and condition - set up and start up the process. This can involve the use of process control systems - monitor the pre-mix process and equipment operation to identify out-of-specification results or non-compliance. This may include flow rates/quantity and time/temperature - monitor supply and flow of materials to and from the pre-mix process. <i>(cont.)</i>

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the pre-mix process	<p>The pre-mix process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specifications</p> <p>Equipment is monitored to confirm operating condition</p> <p>Pre-mixed product meets specifications</p> <p>Stock flow to and from the pre-mix process is maintained within production requirements</p> <p>Pre-mixed product is stored according to food safety and materials handling requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the process is monitored and cleared according to company procedures</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – take corrective action in response to out-of specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down pre-mix equipment in response to an emergency situation – shut down pre-mix equipment in response to routine shutdown requirements – prepare pre-mix equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the pre-mix process – relationship between the pre-mix process and other stockfeed milling processes – stages and changes which occur during the pre-mix process – effect of the pre-mix process on the end product – types of additives and ingredients and their nutritional value – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the pre-mix process – microbiological considerations in mixing additives and ingredients – storage requirements – services used in the pre-mix process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures
Shut down the pre-mix system	<p>The pre-mix process is shut down according to company procedures</p> <p>Waste generated by both process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – significance and methods of monitoring control points within the pre-mix process – microbiological considerations in mixing additives and ingredients – storage requirements – services used in the pre-mix process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures
Record information	<p>Workplace information is recorded in the appropriate format</p>	<ul style="list-style-type: none"> – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a stockfeed pre-mix process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch/recipe instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- pre-mix equipment
- services as required
- stock required for the pre-mix process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units are an integral part of operating a stockfeed pre-mix process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Stockfeed Pre-mix

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance

FDF SFBM2 A

Operate a batching and mixing process**Descriptor**

This is a specialist unit that has been developed for the stockfeed milling sector. It involves weighing and proportioning materials into a batch and mixing the batch to create a product for further processing or for external use

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- The batching and mixing equipment may weigh hoppers, weighers, mixers, holding (dump) hopper/surge bin
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Materials used in pre-mix may include pre-mixes, micro ingredients, macro ingredients, liquids
- Services may include power, fuel, vacuum and compressed and instrumentation air, steam
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the batching and mixing process for operation	<p>Materials are confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The batching and mixing process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B outlines how this guide is to be applied. It should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> – access workplace information to identify production requirements for the batching/mixing process – select, fit and use personal protective clothing and equipment – confirm supply of necessary materials and services to the batching/mixing process – confirm equipment status and condition – set up and start up the process. This can involve the use of process control systems – monitor the batching/mixing process and equipment operation to identify out-of-specification results or non-compliance. This may include flow rates/quantity and time/temperature. (cont.)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the batching and mixing process	<p>The batching and mixing process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specifications</p> <p>Equipment is monitored to confirm operating condition</p> <p>Product meets specifications</p> <p>Stock flow to and from the batching and mixing process is maintained within production requirements</p> <p>Product is stored according to food safety and materials handling requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the process is monitored and cleared according to company procedures</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor supply and flow of materials to and from the batching/mixing process. – take corrective action in response to out-of specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down batching/mixing equipment in response to an emergency situation – shut down batching/mixing equipment in response to routine shutdown requirements – prepare batching/mixing equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the batching/mixing process – relationship between the batching/mixing process and other stockfeed milling processes – stages and changes which occur during the batching/mixing process – effect of batching/mixing process on end product – types of ingredients and their nutritional value – quality characteristics to be achieved – process specifications, procedures and operating parameters
Shut down the pre-mix system	<p>Batching and mixing process is shut down according to company procedures</p> <p>Waste generated by both process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the batching/mixing process – microbiological considerations in batching/mixing – storage requirements – services used in the batching/mixing process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems
Record information	<p>Workplace information is recorded in the appropriate format</p>	<ul style="list-style-type: none"> – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a batching and mixing process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch/recipe instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- batching and mixing equipment
- services as required
- stock required for the batching and mixing process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units are an integral part of operating a batching and mixing process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Stockfeed Batching and Mixing

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance

FD F SFO3 A**Operate a system (Stockfeed Milling)****Descriptor**

This is a specialist unit that has been customised for the stockfeed milling sector. It covers the preparation and operation of a production or packaging system.

A system typically describes the operation of an entire process which may comprise a number of sub-systems. System operation requires higher level planning and problem solving skills than are necessary when operating an individual sub-system or piece of equipment. It can also involve facilitating the work of others.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial awards and agreements
- System operation typically involves planning, co-ordination and troubleshooting within their level of authority
- Stockfeed milling equipment will depend on the milling system and may typically include intake equipment, separators, sieves, aspirators, extractors/destoners, scourers, dampers, measurers/mixers, hammer mills, grinders, break rolls (roller mills), vibrodusters, bran finishers, dressing machines, plansifters, purifiers, reduction rolls, scratch rolls, entoleters (flake disruptors and detachers), mechanical/pneumatic stock transfer equipment
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspection points
- Information systems may be print or screen based
- Co-ordination, planning and troubleshooting is undertaken with assistance from others
- Workplace systems are in place to support production/packaging processes. These include quality, food safety, occupational health and safety and environmental management

Element	Performance criteria	Evidence guide – Part A
Prepare the system for operation	<p>Supply of materials is confirmed to meet production/packaging requirements</p> <p>Work area is prepared for operation</p> <p>Services are confirmed as available and ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The system is set to meet specifications</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> – liaise with relevant work areas to confirm or secure necessary materials, services, equipment and labour to meet production requirements – confirm that all equipment within the system meets hygiene and sanitation standards, all safety guards are in place and equipment is ready for operation <p><i>(cont)</i></p>

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the system	<p>The system is started up according to company procedures</p> <p>Control points are monitored to confirm performance is maintained within specification</p> <p>System outputs meet specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>System outputs meet specification</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – confirm that materials and/pr packaging consumables have been cleared for use – monitor implementation of set-up and start up procedures. This may involve monitoring the use of checksheets by others – monitor observance of work procedures and systems – monitor materials flow and work-in-progress through the system – confirm that the system operates within specified parameters and control points are monitored – determine responses to out-of-specification results or non-conformance within level of responsibility – co-ordinate batch/product changeovers – communicate information effectively – plan maintenance and cleaning procedures to minimise disruption – monitor operating efficiencies of the system and investigate, resolve and/or report problems – review and maintain procedures to support system improvements
Shut down the system	<p>The system is shut down according to company procedures</p> <p>Equipment is cleaned and maintained to meet cleaning schedule and procedural requirements</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and principles of the system – equipment purpose and operation including an understanding of process control systems where used – technical knowledge of product/packaging characteristics and processing/packaging requirements – codes and legislation relating to product and packaging requirements – equipment calibration schedule and responsibilities – type and purpose of sampling and testing conducted – related work areas and departments – relevant procedures, specifications and operating parameters – relevant systems and legislative responsibilities in areas such as human resources, food safety, quality, occupational health and safety and environmental management – industrial awards and agreements relating to system operation – hazards, risks, controls and methods for monitoring processes within the system – maintenance and cleaning requirements of equipment in system
Contribute to continuous improvement of the system	<p>Quality of process outputs is assessed against specifications</p> <p>Opportunities for improvement are identified and investigated</p> <p>Proposals for improvements are developed and implemented within company planning arrangements and according to company procedures</p>	<ul style="list-style-type: none"> – related work areas and departments – relevant procedures, specifications and operating parameters – relevant systems and legislative responsibilities in areas such as human resources, food safety, quality, occupational health and safety and environmental management – industrial awards and agreements relating to system operation – hazards, risks, controls and methods for monitoring processes within the system – maintenance and cleaning requirements of equipment in system

Element	Performance criteria	Evidence guide – Part A
Record information	Workplace information is recorded in the appropriate format	<ul style="list-style-type: none"> – process improvement procedures and related consultative arrangements – troubleshooting procedures and problem solving techniques – recording and reporting requirements

Evidence guide – Part B

Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Stockfeed milling Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to prepare and operate a production or packaging system given:

- work procedures including advice on safe work practices, food safety and environmental requirements for processes within the production/packaging system
- company policies and workplace systems including human resources, OHS, quality, food safety and environmental management
- production/packaging schedule, batch instructions
- sampling and testing schedules as required
- specifications, control points and processing parameters for processes within the production/ packaging system
- production/packaging system equipment
- personnel operating the production/packaging system
- services
- related work areas and communication system
- relevant OHS clothing and equipment
- cleaning, calibration and maintenance schedules as required
- troubleshooting advice where available
- documentation and record keeping system

- planning, resources management and training arrangements

Relationship to other units

Pre-requisites or equivalent:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures
- Implement the quality system
- Implement the food safety plan
- Specialist units from AQF 2 (the pre-requisites will depend on the enterprise's milling processes)

Co-requisites:

- Analyse and convey workplace information
- Monitor the implementation of occupational health and safety
- Monitor the implementation of the quality system
- Monitor the implementation of the food safety plan

Related units:

- Facilitate teams

Where related units form an integral part of system operation in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Stockfeed Mill Operation A
- Stockfeed Mill Operation B

Related learning resources:

- Industrial Communication C
- Quality Assurance C
- Occupational Health and Safety C
- Food Safety C (Hygiene and Sanitation D)
- Work Team Communication