



Australian Government

Department of Education, Employment and Workplace Relations

SFIAQUA205C Feed stock

Release: 1

SFIAQUA205C Feed stock

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit of competency involves carrying out a range of stock feeding activities, including hand and mechanical feeding and undertaking specific or general observations. It covers interpreting instructions and using equipment appropriately. It does not cover the production of micro-algae and live-feeds, nor is it applicable to stock that relies on only naturally-occurring feed. Licensing, legislative, regulatory or certification requirements may apply to this unit. Therefore it will be necessary to check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements before undertaking this unit.
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Application of the Unit

Application of the unit	Licences may be required if operating: • load-shifting equipment, including forklifts • vehicles • vessels. All enterprise or workplace procedures and activities are carried out according to <i>relevant government regulations, licensing and other compliance requirements, including occupational health and safety (OHS) guidelines, food safety and hygiene regulations and procedures, and ecologically sustainable development (ESD) principles.</i> Equipment operation, maintenance, repairs and calibrations are undertaken in a safe manner that conforms to manufacturer instructions. Appropriate <i>personal protective equipment (PPE)</i> is selected, checked used and maintained.
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for feeding	1.1. The feeding schedule is noted and confirmed with supervisor. 1.2. Required equipment is collected and checked for serviceability according to manufacturer instructions. 1.3. Basic repairs and calibrations are made to sub-standard equipment according to manufacturer instructions. 1.4. Data or record sheets/books are collected for use. 1.5. Required quality and quantity of feed is collected and loaded into feed hopper or container. 1.6. Feed, equipment and data sheets are moved to feeding site and readied for use.
2. Feed stock	2.1. Culture or holding structure due to receive feed is identified and confirmed. 2.2. For set feed, feed is distributed according to feeding schedule, and feed trays are checked to determine next feeding level. 2.3. For satiation feed, feed response is noted and feeding continued until response slows down. 2.4. Stock behaviour is observed and recorded and any abnormal activity is reported to supervisor. 2.5. Automatic or mechanised equipment is operated and maintained.
3. Complete post-feeding activities	3.1. Clean up of work area, including repairs and storage of equipment, is supervised, and condition report prepared. 3.2. Relevant feeding data, observations or information are recorded legibly and accurately, and any out of range or unusual records are checked. 3.3. Compliance and other required reports are prepared and conveyed to senior personnel advising of the effectiveness of feeding, and recommendations made for improvements. 3.4. Feedback on own work performance is sought from supervisor and opportunities to improve identified.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communicating ideas on possible improvements
- communicating with supervisor on feeding activities and on own performance
- feeding techniques
- maintaining and repairing basic feeding equipment
- operating basic feeding equipment
- providing oral reports to the supervisor on feeding
- recognising normal and abnormal stock behaviour and environmental conditions.

Literacy skills used for:

- interpreting a feeding schedules
- interpreting feed labels
- recording feeding information.

Numeracy skills used for:

- estimating percentage of feed consumed
- calculating time between feedings
- counting the number of feeds taken
- measuring feed.

Required knowledge

- basic stock feeding behaviour
- effects of feeding on stock
- effects of water and atmospheric conditions on stock feeding behaviour and OHS of employees
- feeding equipment, maintenance and basic repairs
- handling equipment calibration and operating methods
- meanings of ratios, metric units and the concept of percentages
- operation and maintenance of automatic or mechanised equipment
- safety considerations and hazards associated with feeding equipment options and limitations
- storage of feed to maintain quality and minimise pest infestation, including rotation of feed bags, climate control and pest-proofing storage
- types of feeds required.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment evidence required to demonstrate competence in this unit	Assessment must confirm the ability to: • interpret and follow feeding schedule • feed stock by hand or using mechanical devices • make and record observations about stock behaviour during feeding. Assessment must confirm knowledge of: • conditions affecting feeds • factors affecting feed quality of formulated feeds • feeding equipment • feeding methods • feed types • specific feeding requirements of stock.
Context of and specific resources for assessment	Assessment is to be conducted at the workplace or in a simulated work environment, which reflects the range of conditions that may influence feeding activities in a workplace typical of the local area. Resources may include: • feed record data sheets • feeding schedule • range of stock and culture structures relevant to the local area • range of feed products and appropriate feeding equipment • work procedures for feeding formulated diets or increasing access to natural feeds.
Method of assessment	The following assessment methods are suggested: • practical exercises • practical demonstration • written or oral short-answer testing.

EVIDENCE GUIDE**Guidance information for assessment**

This unit may be assessed holistically with other units within a qualification.

Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant government regulations, licensing and other compliance requirements may include:

- biodiversity and genetically modified organisms
- biosecurity, translocation and quarantine
- business or workplace operations, policies and practices
- correct marketing names and labelling
- environmental hazard identification, risk assessment and control
- food safety/Hazard Analysis Critical Control Point (HACCP), hygiene and temperature control along chain of custody, and Australian Quarantine Inspection Service (AQIS) Export Control (Fish) orders
- health and welfare of aquatic animals
- maritime operations, safety at sea and pollution control
- OHS hazard identification, risk assessment and control.

OHS guidelines may include:

- appropriate workplace provision of first aid kits and fire extinguishers
- codes of practice, regulations and/or guidance notes which may apply in a jurisdiction or industry sector
- enterprise-specific OHS procedures, policies or standards
- hazard and risk assessment of workplace, maintenance activities and control measures

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	• induction or training of staff, contractors and visitors in relevant OHS procedures and/or requirements to allow them to carry out their duties in a safe manner • OHS training register • safe lifting, carrying and handling techniques, including manual handling, and the handling and storage of hazardous substances • safe systems and procedures for outdoor work, including protection from solar radiation, fall protection, confined space entry and the protection of people in the workplace • systems and procedures for the safe maintenance of property, machinery and equipment, including hydraulics and exposed moving parts • the appropriate use, maintenance and storage of PPE.
<i>Food safety and hygiene regulations and procedures</i> may include:	• Australian Shellfish Sanitation program • equipment design, use, cleaning and maintenance • exporting requirements, including AQIS Export Control (Fish) orders • HACCP, food safety program, and other risk minimisation and quality assurance systems • location, construction and servicing of seafood premises • people, product and place hygiene and sanitation requirements • Primary Products Standard and the Australian Seafood Standard (voluntary) • product labelling, tracing and recall • receipt, storage and transportation of food, including seafood and aquatic products • requirements set out in Australian and New Zealand Food Authority (ANZFA) Food Standards Code and state and territory food regulations • temperature and contamination control along chain of custody.
<i>ESD principles</i> may include:	• applying animal welfare ethics and procedures • appropriate disposal of waste feeds • control of effluents, chemical residues,

RANGE STATEMENT	
	contaminants, wastes and pollution • improving energy efficiency • increasing use of renewable, recyclable and recoverable resources • minimising noise, dust, light or odour emissions • reducing emissions of greenhouse gases • reducing energy use • reducing use of non-renewable resources • undertaking environmental hazard identification, risk assessment and control.
PPE may include:	• gloves, mitts or gauntlets, and protective hand and arm covering • buoyancy vest or personal floatation device (PFD) • hard hat or protective head covering • hearing protection (e.g. ear plugs and ear muffs) • non-slip and waterproof boots (gumboots) or other safety footwear • personal locator beacon or Emergency Position Indicating Radio Beacon (EPIRB) • protective outdoor clothing for tropical conditions • safety harness • sun protection (e.g. sun hat, sunscreen and sunglasses) • uniforms, overalls or protective clothing (e.g. mesh and waterproof aprons) • waterproof clothing (e.g. wet weather gear and waders).
Feeding schedule may include:	• any specific requirements, such as: • feeding trays • observations to be made • special care or feeding techniques • feed types and location of stores • feeding method and equipment requirements • frequency (e.g. times per day/per hour) • culture stock and culture or holding structure to be fed • nutriments and natural sources of nutriment

RANGE STATEMENT	
	and food • period over which feeding is to be carried out • quantities (e.g. weight and volume) • time at which feeding is to be carried out.
Nutriments may include:	• enrichment formulae • feeds (e.g. micro-algae, pellets, powders and emulsions) • green water • nutrients, fertilisers or other chemicals.
Equipment may include:	• feed trays • hoppers, buckets or bags • mechanised or automated: • belt • blower • clock • demand • smart • spinner • scoops • transport: • forklifts • motorbikes • vehicles • vessels.
Feed may include:	• brand and batch • emulsions or broths • flakes or chips • live: • algae • brine shrimp • copepods • insects and other invertebrate • nematodes • polychaetes • rotifers • zooplankton • moist, semi-moist or dry • natural or formulated (e.g. artificial or man-made)

RANGE STATEMENT	
	• pellets, powders, crumbles or granules • plants: • aquatic • micro-algae • seaweed • sinking or floating • size and shape.
<i>Culture or holding structures</i> may include:	• cages, pontoons, enclosures and pens, including associated moorings, anchors and markers • dams, ponds and pools • display tanks, aquaria and aquascapes • grow out facilities, hatcheries and nurseries • harvesting swimways, canals or channels • live holding tanks, bins, cages and pens • longlines, posts, racks and rails, rafts, fences, socks, trays, sticks, baskets, modules, barrels, bags and panels • open, flow-through, closed and semi-closed systems • purging or depurating systems • tanks, raceways and recirculating systems.
<i>Records</i> may include:	• per cent in feed trays at start and at end • amount of feed required • amount of feed actually provided • daily consumption • feed quality measures, such as presence/level of dust, pests and contaminants • labour content (e.g. hours/day/week) • number of feeds undertaken • time between feedings.

Unit Sector(s)

Unit sector	Aquaculture operations
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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