Australian Government

Department of Education, Employment and Workplace Relations

FDFGR2002A Understand mill operations and technologies

Revision Number: 1

ISC INDUSTRY SKILLS COUNCILS
Creating Australia's Future

FDFGR2002A Understand mill operations and technologies

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the overall knowledge of stockfeed milling operations a stockfeed employee requires to operate safely and effectively in a stockfeed mill.

Application of the Unit

Application of the unit	This unit provides the overall knowledge of stockfeed milling materials, equipment, processes, and common risks that a stockfeed operator requires. It is designed to complement the skills provided by more specific technical and occupational health and safety (OHS) units.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.

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.

AgriFood Skills Australia

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Locate stockfeed mill departments, walkways, storage and assembly areas	1.1. Raw materials receival and storage areas are located 1.2. Control rooms and other main operator stations are located 1.3. Milling, batch and mixing, pelletising, liquid, mash and block stockfeed production areas are located 1.4. Additive storage is located 1.5. Support services, including maintenance, administration, laboratory and quality assurance, and information technology departments are located 1.6. Finished products storage and despatch areas are located 1.7. Walkways and emergency assembly areas are located
2. Describe flow of product through mill and purpose of each stage in the production process	2.1. Main raw materials and source are described 2.2. Receival processes, including weighing, volume and quality checks are described 2.3. Milling process are described 2.4. Batching and mixing processes, including recipe, micronutrients and additives are described 2.5. Post-mixing processes, including pelletising, mashing, pressing and setting are described 2.6. Labelling and packing operations are described
3. Describe range of stockfeeds, their purpose and target species	3.1. Differences in pellet, mash, liquid and block stockfeeds are identified 3.2. Identify target species and animals for stockfeed mill products are identified 3.3. Benefits of stockfeed are described to producers
4. Describe main risks to stockfeed milling operations	4.1. Explain importance of dust control and dust control procedures are explained 4.2. Additives requiring special safety and handling procedures are identified 4.3. Typical pests are described and pest control procedures explained 4.4. Main risks to quality, including contamination, incorrect recipe adherence, incorrect sequencing and product transference, incorrect labelling and packaging are described 4.5. Environmental procedures for mill operations are identified

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
Ability to: • access workplace information to identify processing requirements • read diagrams and sketches • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Required knowledge
Knowledge of: • purpose and basic principles of each part of the stockfeed production process, such as volumetric metering, mixing, steam conditioning, pelletising pouring, pressing, cooling, adding and mixing in micronutrient and other additives, sequencing of production to minimise transference and cross-contamination, and traceability procedures • range of raw materials and typical sourcing • stockfeed product range and target species and animals • basic operating principles of equipment and main equipment components • basic operating principles of process control, including the relationship between control rooms and panels and the physical equipment • the flow of the stockfeed production process • quality characteristics and uses of finished stockfeed • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • methods used to monitor the stockfeed process, such as inspecting, measuring and testing as required by the process • contamination risks and related controls • OHS hazards and controls, including dust, contamination and materials requiring special handling procedures and emergency assembly areas

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	Evidence is required in the ability to identify the overall process of stockfeed production, the different types of products and major departments in a stockfeed mill.
	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to:
	• identify and locate departments, major walkways and assembly areas in the stockfeed mill
	• describe the major steps in the stockfeed production process
	• describe stockfeed products and purposes, including pellets, liquid, mash and block stockfeeds, basic role of additives, typical target species and animals
	• identify major risk factors including dust, pests, contamination and incorrect adherence to recipes.
Context of and specific resources for assessment	The candidate is to be assessed on knowledge and skill relevant to his or her stockfeed workplace.
Method of assessment	Evidence may include direct observation, third party report, portfolio, work documentation, response to questions, and so on that address the performance criteria and critical aspects for assessment.
Guidance information for assessment	Performance against this standard must be assessed in an industry context. For valid and reliable assessment the activity should closely replicate the work environment, circumstances and equipment likely to be encountered in a workplace.

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.	
Stockfeed mill departments	Stockfeed mill departments may include: - road and rail grain receival, including weighbridges, general inwards goods receival - bulk and packaged raw materials storage - milling, batch and mixing, pelletising, liquid, mash and block stockfeed production areas - maintenance - administration - laboratory and quality assurance - information technology - bulk and packaged finished products storage - road and rail despatch
Stockfeed products	Stockfeed products may include: - pellets - mash - liquid - block - pre-mixes - loose licks
Stockfeed production process	A stockfeed production process typically includes: - batching and blending of components, including any micronutrients and other additives - volumetric feeding - steam conditioning - pelletising - pouring of stockfeed into moulds - pressing - cooling - quality checking - labelling

RANGE STATEMENT	
	• packing and despatch
Target species	Target species may include: • dairy cattle • beef cattle • poultry for egg production • poultry for meat • horses • pigs • sheep • fish (aquaculture)
Target animals	Target animals may include: • target species animals by age, gender, stage of growth or production • location and intended purposes and products
Typical pests	Typical pests include: • rodents • birds • insects

Unit Sector(s)

Unit sector	Grain processing

Competency field

Competency field	

Co-requisite units

Co-requisite units	

Co-requisite units		