



Australian Government

Department of Education, Employment and Workplace Relations

FDFST4020A Implement and review the processing of market milk and related products

Release: 2

FDFST4020A Implement and review the processing of market milk and related products

Modification History

April 2012: Minor typographical corrections.

Unit Descriptor

This unit covers the skills and knowledge required to implement and review production standards and procedures for the processing of market milk and related products

Application of the Unit

This unit applies to food science and technology personnel who have roles in product design, quality assurance and food safety, or production management. The unit typically applies to staff with responsibility for maintaining product safety, quality and efficiency in food production in the dairy processing sector. This unit includes using knowledge of food science and processes to determine the required food safety, quality and performance required from food production equipment. Depending on the workplace application, liaison may be required with engineering and maintenance specialists.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

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.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Receive fresh milk and blend using standard industry data	1.1 Receival and testing procedures for milk from farm are applied 1.2 A safe working environment is provided for milk receival and testing 1.3 Received milk is tested and data is recorded and stored 1.4 Received milk is stored under correct conditions and adjusted or blended based on test data
2. Monitor the manufacture of market milk and related products to meet quality standards	2.1 The specifications for the end product are determined 2.2 A safe working environment is provided for the manufacture of product samples 2.3 Resource requirements for the preparation and manufacture of market milk and related products are identified 2.4 A production schedule to ensure all resources and requirements are available and meet company requirements is used 2.5 Critical factors in the preparation and manufacture of market milk and related products are addressed 2.6 Data requirements appropriate for food safety, quality and production standards are identified 2.7 Data collection points consistent with equipment capabilities and data requirements are established 2.8 Procedures to deal with non-conformance in relation to process and the final product are developed 2.9 Market milk and related product manufacture is carried out and monitored
3. Report problems arising from the preparation and manufacture of market milk and related products	3.1 Potential product defects and their causes, which may arise in the preparation and manufacture of market milk and related products, are identified 3.2 System to identify defects in the preparation and manufacture of market milk and related products, and to apply adjustments to process/equipment is implemented and reviewed 3.3 Problems are reported to designated person according to company policies and procedures

Required Skills and Knowledge

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

Required skills include:

Ability to:

- implement handling and storage procedures for market milk and related products
- establish CCPs and critical limits for each step in production of market milk and related products
- monitor production of market milk and related products
- apply procedures to ensure the product is fit for further processing and meets regulatory, food safety and quality requirements
- overview the implementation of the HACCP plan
- carry out product sampling and testing according to the HACCP plan and operational procedures
- provide relevant information to work colleagues to facilitate understanding of, and compliance with, the Australian Standards and associated regulations
- take action to improve own work practice as a result of self-evaluation, feedback from others, or changed work practices, regulations or technology
- use technology to access information, prepare reports, and to access and prepare relevant data
- implement workplace OH&S procedures.

Required knowledge includes:

Knowledge of:

- the statutory compositional requirements for the different types of market milk and related products
- domestic and export markets for market milk and related products
- production systems used for the preparation and manufacture of market milk and related products
- formulation of market milk and related products
- role of major ingredients found in market milk and related products
- the purpose of each process, and processing sequence, used in the preparation and manufacture of market milk and related products
- principles of operation of equipment and accessories used in the preparation and manufacture of market milk and related products are determined
- output of each of the processes used in the preparation and manufacture of market milk and related products are identified
- production system requirements for the preparation and manufacture of each market milk and related products are determined
- the resource requirements for the preparation and manufacture of market milk and related products
- chemical and physical hazards which may affect milk

- procedures for milk storage, handling and preparation
- safe work procedures
- sanitation and hygiene procedures
- HACCP principles and critical limits in a HACCP program
- identification of CCPs and critical limits
- water and energy use and recycling in processing
- regulatory requirements associated with the processing of market milk and related products
- environmental impacts of the food processing operation

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	A person who demonstrates competency in this unit must be able to implement and review production standards and procedures for the processing of market milk and related products.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Critical aspects of assessment must include evidence of the ability to: implement process control procedures and data collection to process milk and related products; carry out sensory evaluation and product testing; diagnose and report problems for manufacturing; and review the production system for food safety and quality and environmental impact.
Context of and specific resources for assessment	Assessment of performance requirements in this unit should be undertaken within the context of food technology. Competency is demonstrated by performance of all stated criteria, including the critical aspects and knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statements applicable to the workplace environment. Assessment must occur in a real or simulated workplace where the assessee has access to: • Production process and related equipment, manufacturers' advice and operating procedures • Methods and related software systems as required for collecting data and calculating yields, efficiencies and material variances appropriate to production environment • Tests used to report relevant product/process information and recorded results.
Method of assessment	The following assessment methods are suggested: • Written and/or oral questioning to assess knowledge and understanding • Observation of candidate conducting a range of processes and tests • A report on a review of the production system.
Guidance information for assessment	Evidence should be gathered over a period of time in a

	range of actual or simulated environments.
--	--

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.

Legislation	Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes the Food Standards Code including labeling, weights and measures legislation; and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity.
Policies and procedures	Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements.
Safe work procedures	Examples of specific task related procedures may include: • handling of chemicals • use of PPE.
Materials and equipment	Food processing chemicals, Food processing equipment, fermenting vessels, centrifuge, heat exchangers, homogeniser, mixing vats, sanitary pumps, conveying belts, fillers and aseptic fillers.
Market milk and related products	Includes standardised milk, whole fresh milk, recombined milk, vitamised milk, irradiated milk, mineralised milk, reconstituted or rehydrated milk, skimmed milk, heat treated or UHT milk, flavoured milks.

Unit Sector(s)

Technical.