



Australian Government

Department of Education, Employment and Workplace Relations

FDFST4042A Identify and implement product safety and quality for egg based product manufacturing

Release: 2

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Modification History

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This unit covers the skills and knowledge required to identify and implement safety and quality procedures for egg based product manufacturing.
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Application of the Unit

Application of the unit	This unit applies to food science and technology personnel who have roles in product design, quality assurance and production management. The unit typically applies to staff who have responsibility for maintaining product safety, quality and efficiency in egg based products. 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.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

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.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor the preparation of ingredients, and the processing equipment and areas	1.1 Ingredients are identified by type, quality and safety according to product specifications 1.2 Ingredients are sourced and prepared according to the formulation specifications and regulatory requirements 1.3 Handling requirements for ingredients to prevent food safety hazards are monitored to ensure product quality and safety 1.4 Relevant processing equipment is identified and operating procedures checked for consistency with manufacturer's specifications and regulatory and enterprise requirements 1.5 Pre-operational checks and procedures are conducted or supervised and risks, contamination or variations reported in accordance with workplace policies and procedures, and regulatory requirements are monitored 1.6 Cleaning regime is identified and monitored to ensure hygiene and safe work area requirements are maintained
2. Monitor the production of egg based food products to meet quality standards	2.1 Critical factors in the preparation and production of egg based food products are identified 2.2 Resource requirements for the preparations and production of egg based food products are established 2.3 A production schedule to ensure all resources and requirements are available and meet company requirements is used 2.4 The production system is set to the required operating specifications before and during production and verified 2.5 The production system for egg based food products, including cooking or steaming, is monitored 2.6 Pasteurisation of egg product is carried out according to procedures and Food Standards Code 2.7 Chilling or freezing technologies are used to set and store product
3. Diagnose, rectify and/or report problems arising from the preparation and production of egg based food products	3.1 Procedures are checked for coverage of potential problems arising from the preparation and production of egg based food products 3.2 Methods used to identify defects are determined 3.3 A system to identify defects in the preparation and production of egg based food products is selected and implemented, and adjustments applied to process/equipment as identified 3.4 Problems are reported to designated person according to company policies and procedures
4. Review production processes	4.1 The critical control points (CCPs) and critical limits for product safety are reviewed 4.2 A sampling plan for egg based food products is developed and implemented 4.3 Sensory analysis of egg based food products is conducted and analysed 4.4 Food tests are undertaken to determine if food quality and safety

ELEMENT

PERFORMANCE CRITERIA

- critical limits are complied with
- 4.5 Operating procedures are reviewed for the safety and quality of egg based food products
- 4.6 Safe work systems for processing of egg based food products are reviewed
- 4.7 Environmental impacts and energy efficiencies are reviewed for processing of egg based food products

Required Skills and Knowledge

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

Required skills include:

Ability to:

- test for quality and shelf life of an avian egg
- recognise common spoilage organisms associated with an avian egg
- construct a process chart for a selected egg production
- estimate and monitor output rate and quality of each of the processes used in the preparation and production of egg based food products
- carry out tests for product safety and quality for egg based products
- diagnose, rectify and/or report problems arising from the preparation and production of egg based food products

Required knowledge includes:

Knowledge of:

- processes used in the preparation and production of egg based food products
- relationship between the processes used in the processing of egg based food products
- operation of equipment and accessories used in the preparation and manufacturing processes of egg based food products
- recognition of spoilage organisms in eggs
- principles of handling and storing eggs
- anatomy and physiology of an avian egg
- pasteurisation processes
- production systems for the preparation and production of egg based food products
- manufacturing processes in regard to frozen and dried egg products
- formulation of egg based food products
- role of major ingredients found in egg based food products
- stages of production, CCPs and critical limits
- quality and continuous improvement processes
- sensory analysis techniques
- safe systems of work.

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 and evidence required to demonstrate competency in this unit	Critical aspects of assessment must include evidence of the ability to identify and implement safety and quality procedures for egg based product manufacturing including monitoring commercial processing techniques, carrying out sensory evaluation and product testing, and reviewing 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 • Tests used to report relevant product/process information and recorded results
Method of assessment	The following assessment methods are suggested: • Analysis of product and process under the candidate's supervision • Written and/or oral questioning to assess knowledge and understanding • Observation of candidate conducting a range of processes and tests • A report on 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

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
Egg based products	Separated and pasteurised egg pulp and egg yolks and whites, omelette mixes, custards, powdered egg products, frozen egg products (omelettes, eggs cooked and peeled, scrambled egg portions, egg rolls or long eggs)
Ingredients	Sauces and fillings, spices, herbs, water, milk product, nuts, mushrooms or breads
Micro-organisms	• bacteria • mould • virus • yeast.
Workplace requirements	• enterprise-specific requirements • OH&S requirements • Quality Assurance requirements • Standard Operating Procedures • the ability to perform the task to production requirements • work instructions.

RANGE STATEMENT

OH&S

- enterprise OH&S policies, procedures and programs
- OH&S legal requirements
- Personal Protective equipment (PPE) which may include:
 - coat and apron
 - ear plugs or muffs
 - eye and facial protection
 - head-wear
 - lifting assistance
 - mesh apron
 - protective boot covers
 - protective hand and arm covering
 - protective head and hair covering
 - uniforms
 - waterproof clothing
 - work, safety or waterproof footwear
- requirements set out in standards, codes of practice

Unit Sector(s)

Unit sector	Technical
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