



Australian Government

Department of Education, Employment and Workplace Relations

FDFST5008A Develop a new food product

Release: 2

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Modification History

April 2012: Minor typographical corrections.

Unit Descriptor

This unit covers the skills and knowledge required to develop an innovative food, beverage or related product from a concept to a packaged and labelled finished product.

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 food product development. The unit can apply to all sectors of food production including general food production, meat and seafood industries. The unit does not cover developing process controls however ingredients, food processes and production parameters must be documented. Depending on the product developed, liaison may be required with production managers, 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. Develop concept for the new product	1.1 Identify concept for new innovative product 1.2 Identify potential innovative new product 1.3 Determine market for new product 1.4 Determine viability of product concept
2. Identify product development parameters	2.1 Determine product parameters 2.2 Determine equipment required for producing new product 2.3 Determine analytical tests to be conducted to identify quality and safety parameters 2.4 Determine processing parameters 2.5 Determine ingredients required for producing new product
3. Trial new product	3.1 Conduct a series of trials of new product 3.2 Determine improvements and or changes required for each successive trial 3.3 Accurately record details of each trial
4. Analyse new product	4.1 Determine appropriate analytical tests to be conducted to verify product safety and quality 4.2 Conduct appropriate tests to determine quality and safety of product 4.3 Accurately record test results 4.4 Determine safety and quality of product using analytical results
5. Design label for product	5.1 Establish concept for product label 5.2 Identify requirements to ensure the product label is compliant 5.3 Develop a compliant label for the food product
6. Package product	6.1 Establish equipment required for packaging new food product 6.2 Establish suitable packaging materials required for packaging new product 6.3 Package final product
7. Document development process	7.1 Conceptual ideas are documented 7.2 Research relevant to new product is conducted and documented 7.3 Analysed results of new product quality and safety are verified and documented 7.4 Details and results of product trials are documented and changes to trials are explained and justified

Required Skills and Knowledge

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

Required skills include:

Ability to:

- interpret food safety requirements
- interpret and conform to relevant standards and legislative requirements
- apply testing and sensory analysis techniques relevant to new product development
- interpret analytical results
- establish processing techniques and parameters relevant to new product under development
- record, document and verify information relating to product development.

Required knowledge includes:

Knowledge of:

- customer needs and market research
- food safety and food quality parameters
- food processing principles relevant to new product
- food testing and sensory analysis techniques
- food packaging requirements
- all legislative requirements associated with new product.

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	A person who demonstrates competency in this unit must be able to produce samples of cereal-based products to provide information and date for reviewing the production system.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Critical aspects of assessment must include the ability to develop a food product including evidence of: developing a concept and production parameters for a food product; trialling the production of the new product; analysing the results of product trials; designing packaging and label for the new product; and preparing a report on the product development process.
Context of and specific resources for assessment	<p>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.</p> <p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • Laboratory facilities • Production facilities • Current legislative requirements • Computers, printers and appropriate software packages • Access to research materials including but not exclusive to: <ul style="list-style-type: none"> • journals • periodicals • internet • articles • research papers

EVIDENCE GUIDE	
	<ul style="list-style-type: none">• text• industry papers.
Method of assessment	The following assessment methods are suggested: <ul style="list-style-type: none">• A report on developing a product from concept to packaging• The qualities and packaging of the new product• Written and/or oral questioning to assess knowledge and understanding• Observation of candidate conducting a range of processes and tests.
Guidance information for assessment	Evidence should be gathered over a period of time in a range of actual or simulated environments.

Range Statement

<p>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.</p>	
<p>Occupational health and safety requirements</p>	<ul style="list-style-type: none"> • Codes of practice • Material Safety Data Sheet • Enterprise specific.
<p>Regulations</p>	<ul style="list-style-type: none"> • Australian and international standards including: <ul style="list-style-type: none"> • professional association regulations • industry guidelines and codes of practice • industry regulations • Food Standards Code • ISO Standards • codex alimentarius • State food regulators • Acts of parliament.
<p>Materials, equipment and systems</p>	<ul style="list-style-type: none"> • Access to processing facilities within research parameters • Access to analytical facilities within research parameters • Access to research materials including but not limited to: <ul style="list-style-type: none"> • industry journals/periodicals • food-related magazines • text • articles • internet sites associated with research parameters.

Unit Sector(s)

Technical.