



Australian Government

Department of Education, Employment and Workplace Relations

FDFCON2001A Examine raw ingredients used in confectionery

Revision Number: 1

FDFCON2001A Examine raw ingredients used in confectionery

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to identify the key characteristics of raw materials used in confectionery products to support the achievement of production specifications.
------------------------	---

Application of the Unit

Application of the unit	This unit has application in a production environment. It targets knowledge of confectionery raw ingredients and skills to recognise reactions to production processes. This unit typically targets the production worker responsible for the operation and monitoring of confectionery equipment and processes.
--------------------------------	--

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.
---	--

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Define raw ingredients used in confectionery production	1.1.Key confectionery groups are identified and features described 1.2.Commonly used raw ingredients and their origins are identified 1.3.Types of carbohydrates used in confectionery are identified 1.4.Types of sweeteners used in confectionery are identified 1.5.Grades and properties of sugar are described 1.6.Types of starches and glucose syrups are identified 1.7.Types of fats used in confectionery are identified
2. Identify the effects of raw materials in confectionery production	2.1.Effects of using different types of commonly used raw ingredients in confectionery are identified 2.2.Effects of using different types of carbohydrates and fats in confectionery are identified 2.3.Effects of using different types of sugars in confectionery are identified 2.4.Effects of using types of starches and glucose syrups in confectionery are identified 2.5.Effects of temperature and water on raw ingredients are identified 2.6.Effects of production processes on raw ingredients are examined and described
3. Identify processing requirements for raw materials	3.1.Specifications for production are identified 3.2.Implications for processing of raw materials are identified 3.3.Common problems associated with raw materials are identified 3.4.Actions required to address common problems are identified 3.5.Storage and handling requirements for raw ingredients are identified 3.6.Work is conducted in accordance with workplace environmental guidelines

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Ability to:

- access and interpret workplace information on raw materials
- examine production specifications
- identify raw materials, uses and characteristics
- identify sources of raw materials and key features
- assess consequences of different uses of raw materials
- identify requirements for achieving quality standards
- 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:

- raw materials used in confectionery
- origins of raw materials
- confectionery product types
- characteristics of raw materials
- effects and uses of raw materials
- common problems and action required
- types of carbohydrates and uses
- types of sweeteners and uses
- types of starches and glucose syrups and uses
- storage and handling requirements for raw materials

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

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 the key confectionery groups and the main raw materials used
- describe the effects of raw materials in confectionery
- describe the effects of temperature and water on raw materials
- describe the effects of the production process on raw materials
- identify common problems with raw materials in the production process and determine required action
- access and interpret workplace information on raw materials.

Context of and specific resources for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

- personal protective clothing and equipment
- work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- information on equipment capacity and operating parameters
- recipe/batch instructions
- specifications, control points and processing parameters
- process and related equipment and services, including mixing equipment, cookers and coolers. It may also include further processing equipment as required
- ingredients used in the preparation of high/low boil product as required
- sampling schedules and test procedures and equipment as required

EVIDENCE GUIDE	
	• documentation and recording requirements and procedures • cleaning procedures, materials and equipment as required.
Method of assessment	This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be: • FDFOP2004A Clean and sanitise equipment • FDFOP2011A Conduct routine maintenance • FDFOP2013A Apply sampling procedures • FDFOP2030A Operate a process control interface • MSL973001A Perform basic tests.
Guidance information for assessment	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

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.

Policies and procedures	Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, occupational health and safety (OHS), anti-discrimination and equal opportunity
Workplace information	Workplace information may include: • standard operating procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Key confectionery groups	Key confectionery groups include: • high boils, cream pastes, toffees caramels and fudge • fondants • jellies, gums and pastilles • liquorice • honeycomb, meringues, marshmallows and nougats • panned products • chewing gum • chocolate • sugar free products

RANGE STATEMENT	
Common raw materials	Commonly used raw materials include: • sugar and other sweeteners • milk products • cocoa • fat/oil • fruits and nuts • gelling agents, such as starch, gelatine, pectins and gums • additives, such as flavourings, colouring, lecithin and other emulsifiers, acids and preservatives
Types of carbohydrates	Types of carbohydrates covered by this unit must include: • Monosaccharides, such as glucose (dextrose), galactose, fructose, mannose, arabinose and xylose • Disaccharides, such as sucrose, lactose and maltose • Oligosaccharides, such as polydextrose, polyols, maltodextrins, hydrogenated starch hydrolysates, fructooligosaccharide and galctooligosaccharide • Polysaccharides, such as starch, dextrans, cellulose, vegetable gums and glycogen
Types of sweeteners	Types of sweeteners include: • sugar (raw, refined) • sucrose • molasses • brown sugar • honey • golden syrup • treacle • malt extract • licorice block
Grade of sugar	Grade of sugar includes: • caster sugar • icing sugar • liquid sugar

RANGE STATEMENT	
Characteristics of sugar	Characteristics of sugar include: • sweetness • solubility • crystallisation • inversion
Types of starches and glucose syrups	Types of starches and glucose syrups include: • wheat • maize (corn) • rice • potato • grain • modified
Characteristics of starch	Characteristics of starch include: • birefringence • viscosity
Uses of glucose	Uses of glucose include: • anti-graining • resistance to activity by microorganisms • increasing product viscosity

]

Unit Sector(s)

Unit sector	Confectionery
--------------------	---------------

Competency field

Competency field	
-------------------------	--

Co-requisite units

Co-requisite units		