

Title	Demonstrate knowledge of wheat flour and the flour production process		
Level	3	Credits	8

Purpose	People credited with this unit standard are able to: describe the characteristics of wheat; describe flour milling processes; describe the characteristics of wheat flour; and explain flour quality.
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Classification	Food and Related Products Processing > Baking
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Available grade	Achieved
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Guidance Information

- Legislation and references**
 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:
 Food Act 2014;
 Health and Safety at Work Act 2015;
 Resource Management Act 1991;
 Australia New Zealand Food Standards Code, available at <http://www.foodstandards.govt.nz/>.
 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- Definitions**
Characteristics refer to features or qualities of an item or thing that serve to identify that item or thing.
Workplace procedures refer to procedures used by the organisation carrying out the work and applicable to the tasks being carried out, such as recipes, production specifications, standard operating procedures, site safety procedures, equipment operating procedures, codes of practice, quality assurance procedures, housekeeping standards, and procedures to comply with legislative and local body requirements.
- Assessment information**
 Evidence generated during assessment against this standard must meet applicable workplace procedures and must be consistent with industry practice and the generally accepted body of knowledge relating to baking science and technology. Such knowledge is available in relevant training manuals and reference texts. No one textbook or other source of information is envisaged, as new approaches to commercial baking and baking products are published regularly.

Outcomes and performance criteria

Outcome 1

Describe the characteristics of wheat.

Performance criteria

1.1 Main parts of a wheat grain are identified and described.

Range bran, endosperm, germ.

Outcome 2

Describe flour milling processes.

Performance criteria

2.1 Milling is explained in terms of its purpose and use in flour production.

2.2 Milling systems are described in terms of their characteristics, capabilities, and flour types produced.

Range roller milling, stone grinding.

Outcome 3

Describe the characteristics of wheat flour.

Performance criteria

3.1 Flour types are defined according to their use in the baking industry.

Range use in the baking industry includes making – bread, cake, biscuits, pastry.

3.2 Flour types are described and compared in terms of their composition, characteristics, and uses in baking.

Range protein, bran, wholemeal, water absorption.

3.3 Starch is described in terms of its characteristics, functions, and uses.

Range gelatinisation, retrogradation, damaged starch.

3.4 Proteins are described in terms of their characteristics, functions, and uses.

3.5 The roles amylases perform in flour are described.

Outcome 4

Explain flour quality.

Performance criteria

- 4.1 Flour quality is described in terms of the composition of different flour types and their suitability for bakery products.

Range bakery products – bread, cake, pastry, biscuit.

- 4.2 A flour specification is described in terms of its function and content.

- 4.3 Flour specification data sheets are interpreted with regards to the requirements for specific bakery products.

Range may include but is not limited to – moisture content, protein content, starch damage, colour, water absorption, particle size, falling number, development time, resistance, length.

- 4.4 Signs of flour contamination and their causes are described.

Range insect damage, sprout damage, taint damage.

Planned review date	31 December 2030
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 November 1998	31 December 2018
Review	2	20 April 2006	31 December 2018
Review	3	17 March 2016	31 December 2020
Revision	4	8 December 2016	N/A
Review	5	26 June 2025	N/A

Consent and Moderation Requirements (CMR) reference	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.