

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

Purpose	<p>This unit standard is for people working or intending to work in the baking industry.</p> <p>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.</p>
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Classification	Food and Related Products Processing > Baking
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Available grade	Achieved
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Explanatory notes

1 References

Enactments and codes relevant to this unit standard include but are not limited to the: Food Act 1981 and the Food Act 2014; Health and Safety at Work Act 2015; Resource Management Act 1991; Food (Safety) Regulations 2002; Food Hygiene Regulations 1974; Australia New Zealand Food Standards Code, available at <http://www.foodstandards.govt.nz/>.

2 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.

3 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 evidence requirements

Outcome 1

Describe the characteristics of wheat.

Evidence requirements

- 1.1 Main parts of a wheat grain are identified and described.
Range bran, endosperm, germ.
- 1.2 Common diseases of wheat cultivars are named and described.
Range three common diseases.

Outcome 2

Describe flour milling processes.

Evidence requirements

- 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 starch, protein, fibre, 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 Gluten is described in terms of its characteristics, functions, and uses.

3.6 The roles enzymes perform in flour are described.

Range amylases, proteases.

Outcome 4

Explain flour quality.

Evidence requirements

4.1 Flour quality is defined 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 defined in terms of its function and content.

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

Range moisture content, protein content, starch damage, colour, water absorption, particle size.

4.4 Visible signs of flour damage are described.

Range three visible signs.

Planned review date	31 December 2021
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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

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>.

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.