

Title	Demonstrate and apply knowledge of waste reduction in a commercial baking environment		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to: identify the factors that contribute to waste in a commercial baking environment, describe waste reduction practices in a commercial baking environment and apply waste reduction practices to the baking process.
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Classification	Food and Related Products Processing > Baking
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Available grade	Achieved
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Guidance Information

1 Definitions

Commercial baking environment means a craft, plant, or in-store/franchise bakery. *Waste* refers to time, ingredients, effort, equipment usage and work area occupation. *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.

2 Assessment information

This unit standard must be assessed in a commercial bakery or in a simulated environment that demands performance equal to that required in a commercial bakery.

Evidence generated during assessment against this standard must meet applicable workplace procedures and must be consistent with industry practice 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

Identify the factors that contribute to waste in a commercial baking environment.

Performance criteria

- 1.1 The factors contributing to ingredient wastage in a commercial bakery are identified.
- Range identified examples may include – substandard storage, stock rotation, inadequate labelling, incorrect labelling, substandard quality, incorrect selection, non-compliance with recipe.
- 1.2 Human error is explained in terms of its effect on the baking process and creation of waste.
- Range human error may include but is not limited to – interpreting a recipe, mathematical calculations, weighing ingredients, non-compliance with workplace procedures, misinterpreting a recipe.
- 1.3 The matching of customer demand to bakery production is described in terms of product type and quantity.
- 1.4 The role of production planning is described in terms of its effect on bakery workflow, efficiency, and output.
- Range human resource allocation, equipment and plant utilisation, production scheduling, product mix.
- 1.5 Misuse of equipment is described in terms of consequential damage and downtime.

Outcome 2

Describe waste reduction practices in a commercial baking environment.

Performance criteria

- 2.1 The role and importance of waste minimisation procedures are explained for a commercial bakery.
- 2.2 The management of ingredients to minimise waste is described.
- Range purchasing, quality specifications, labelling, quality checks, storage, processing of substandard ingredients.
- 2.3 The purpose and content of written communications used in the baking industry are described.
- Range written communications may include but are not limited to – workplace procedures, recipes, work instructions, signs, labels.
- 2.4 The factors that determine the efficiency of a commercial bakery layout are explained.

2.5 The principles of production planning to reduce lost time in a commercial bakery are described.

Range human resource allocation, equipment allocation, job scheduling, contingency planning.

2.6 Procedures for reworking non-conforming product and ingredients are described.

2.7 The effects of equipment breakdowns on production are explained and procedures to mitigate them are described.

Outcome 3

Apply waste reduction practices to the baking process.

Range three occasions.

Performance criteria

3.1 Waste reduction opportunities within work scheme are identified.

Range waste may include but is not limited to – time, effort, equipment, materials, work area.

3.2 Changes that reduce waste are promoted.

Range methods to promote changes may include but are not limited to – verbal suggestion, completing a suggestion form, tabling a proposal at a meeting.

3.3 Waste reduction practices are applied to the baking process.

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	17 March 2016	N/A
Review	2	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.