

Title	Describe and carry out product testing in a laboratory in a primary products food processing operation		
Level	4	Credits	20

Purpose	People credited with this unit standard are able to: describe the principles, critical stages, and variables, of product tests performed in a laboratory on food products; perform product tests on food products in a laboratory; and interpret and report calculation results of product tests in a laboratory on food products, in a primary products food processing operation.
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Classification	Primary Products Food Processing > Primary Products Food Processing - Operational Skills
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Available grade	Achieved
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Guidance information

- 1 Legislation and standards relevant to this unit standard include but are not limited to:
 - Hazardous Substances and New Organisms Act 1996;
 - Health and Safety at Work Act 2015;
 - Health and Safety in Employment Regulations 1995;
 - Resource Management Act 1991;
 - ISO/IEC 17025:2018 *General requirements for the competence of testing and calibration laboratories*, available at <http://www.standards.co.nz>; and any subsequent amendments.
- 2 Definitions

Organisational requirements – instructions to staff on policies and procedures which are documented in memo, electronic or manual format and are available in the workplace.

Primary products food processing operation – covers a meat, dairy, seafood, fruit and vegetable and honey processing, food and beverage manufacturing and other related industries.
- 3 *Product tests* may include but are not limited to – fat tests, physical tests, functional tests, protein tests; evidence is required of four different product tests.
- 4 All evidence presented in this unit standard must be in accordance with organisational requirements.

Outcomes and performance criteria

Outcome 1

Describe the principles, critical stages, and variables, of product tests performed in a laboratory on food products in a primary products food processing operation.

Performance criteria

- 1.1 Describe the principles of product tests in terms of technology, reactions and processes involved.
- 1.2 Describe critical stages of product tests in terms of their function.
- Range critical stages may include but are not limited to – media preparation, sample preparation, test preparation, testing, reading and data input, confirmation; evidence of three critical stages is required.
- 1.3 Describe variables of product tests in terms of the process for eliminating variables.
- Range variables may include but are not limited to – equipment, apparatus, reagents, sample, technique, contamination, calibration, and environment; evidence of three variables is required.
- 1.4 Describe quality assurance of product tests.
- Range quality assurance includes but is not limited to – blanks, repeatability, and reproducibility.

Outcome 2

Perform product tests on food products in a laboratory in a primary products food processing operation.

Performance criteria

- 2.1 Prepare samples and equipment in accordance with manufacturer's specifications.
- 2.2 Perform product tests on food products.
- 2.3 Use personal protective equipment and safety procedures.
- 2.4 Check test results for consistency with precision requirements.
- 2.5 Clean and store test equipment.

Outcome 3

Interpret and report calculation results of product tests in a laboratory on food products in a primary products food processing operation.

Performance criteria

- 3.1 Interpret and report calculations on food products tested in terms of conformance.
- 3.2 Record results and perform calculations.
- 3.3 Identify any tested food product non-conformance and corrective action is taken.

Replacement information	This unit standard replaced unit standard 22002, unit standard 22044 and unit standard 22444.
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Planned review date	31 December 2026
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Last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 September 2015	31 December 2024
Review	2	24 March 2022	N/A

Consent and Moderation Requirements (CMR) reference	0033
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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.