

<b>Title</b>	<b>Use handheld laboratory instruments in a primary products food processing operation</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	<p>This entry-level unit standard is for people who work in a laboratory, in a primary products food processing operation.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of the principles of operation of handheld laboratory instruments; calibrate handheld laboratory instruments and apply correction factors; use handheld laboratory instruments to carry out tests; and record laboratory test results, in a primary products food processing operation.</p>
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<b>Classification</b>	Primary Products Food Processing > Primary Products Food Processing - Operational Skills
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<b>Available grade</b>	Achieved
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**Guidance Information**

- 1 Legislation and references relevant to this unit standard includes but is not limited to – Hazardous Substances and New Organisms Act 1996, Health and Safety in Employment Act 1992, Health and Safety in Employment Regulations 1995, Resource Management Act 1991, ISO/IEC 17025:2005/Cor1:2006 *General requirements for the competence of testing and calibration laboratories*, NZS/ISO 15189:2003 *Medical Laboratories – Particular requirements for quality and competence*, available at <http://www.standards.co.nz>.
- 2 Definitions  
*Handheld laboratory instruments* may include but are not limited to – probe, refractometer, thermometer, thermocouple;  
 evidence is required for a probe and one other instrument.  
*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 processing, dairy processing, seafood or baking yeasts manufacturing operation.

**Outcomes and performance criteria**

**Outcome 1**

Demonstrate knowledge of the principles of operation of handheld laboratory instruments in a primary products food processing operation.

**Performance criteria**

- 1.1 Function and purpose of each instrument is described in terms of the technology used.
- 1.2 Maintenance procedures are described in terms of manufacturer's specifications and organisational requirements.
- 1.3 Calibration procedures are described in terms of manufacturer's specifications and organisational requirements.
- 1.4 Quality control checks are identified and described in terms of types and causes of typical errors.

**Outcome 2**

Calibrate handheld laboratory instruments and apply correction factors in a primary products food processing operation.

**Performance criteria**

- 2.1 Instruments are zeroed, calibrated and correction factors determined in accordance with manufacturer's specifications and organisational requirements.
- 2.2 Correction factors are applied to test results in accordance with organisational requirements.

**Outcome 3**

Use handheld laboratory instruments to carry out tests in a primary products food processing operation.

**Performance criteria**

- 3.1 Instruments are connected and settings selected in accordance with manufacturer's specifications and organisational requirements.
- 3.2 Measurements are taken in accordance with organisational requirements.
- 3.3 Instruments are operated using personal protective equipment and safety procedures in accordance with organisational requirements.
- 3.4 Instruments are maintained in accordance with manufacturer's specifications and organisational requirements.

**Outcome 4**

Record laboratory test results in a primary products food processing operation.

**Performance criteria**

- 4.1 Results are documented in accordance with organisational requirements.
- 4.2 Results are reviewed and any non-conformance is reported in accordance with organisational requirements.

<b>Replacement information</b>	This unit standard replaced unit standard 21990.
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**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	17 September 2015	31 December 2021
Review	2	24 October 2019	31 December 2021

<b>Consent and Moderation Requirements (CMR) reference</b>	0033
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.