

Title	Carry out culture preparation in a laboratory in a primary products food processing operation		
Level	4	Credits	10

Purpose	<p>This unit standard is for experienced 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: preparing culture media; culture maintenance; and preparing culture media for microbiological testing of food products; record quality control information for culture maintenance on food products, in a primary products food processing operation.</p>
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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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Explanatory notes

- 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

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.

Cultures – a single species bacterial isolate that is grown in the laboratory for the specific purpose of media validation, water toxicity and detergent residue testing.

Outcomes and evidence requirements

Outcome 1

Demonstrate knowledge of preparing culture media for microbiological testing of food products in a primary products food processing operation.

Evidence requirements

- 1.1 Media components are described in terms of their function in the media.
- Range evidence is required of three media components used in the candidate's workplace.
- 1.2 Effect of the environment on media is described in terms of temperature, humidity, light, pH and contamination.

Outcome 2

Demonstrate knowledge of culture maintenance for microbiological testing of food products in a primary products food processing operation.

Evidence requirements

- 2.1 The requirement for maintenance of cultures is explained in terms of possible consequences of failing to maintain cultures correctly.
- 2.2 Maintenance of cultures is described in terms of the techniques used.
- Range evidence is required of two techniques.

Outcome 3

Prepare culture media for microbiological testing of food products in a primary products food processing operation.

Evidence requirements

- 3.1 Culture media is prepared in accordance with organisational requirements.
- 3.2 Quality checks are performed in accordance with organisational requirements.
- 3.3 Media is stored in accordance with organisational requirements
- 3.4 Media is checked for deterioration and expiry date and any dated or deteriorated media is discarded in accordance with organisational requirements.
- 3.5 Cultures are maintained to ensure viable, stable and pure stock.
- 3.6 Any sub-culturing is performed in a safe and aseptic manner.

- 3.7 Equipment is cleaned and stored and samples and waste disposed of in accordance with organisational requirements.

Outcome 4

Record quality control information for culture maintenance on food products in a primary products food processing operation.

Evidence requirements

- 4.1 Results are recorded in accordance organisational requirements.
- 4.2 Any non-conformance is identified and corrective action taken in accordance with organisational requirements.

Replacement information	This unit standard replaced unit standard 21992 and unit standard 21994.
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Planned review date	31 December 2020
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Last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 September 2015	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>.

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 (CMRs). 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 the Primary Industry Training Organisation standards@primaryito.ac.nz if you wish to suggest changes to the content of this unit standard.