Food Authority

NSW GOVERNMENT

Food Safety Schemes Manual

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Table of Contents

Appendices

The appendices to the FSSM are published separately and available on the NSW Food Authority website at www.foodauthority.nsw.gov.au/industry/food-safety-schemes-manual

Introduction

The NSW Food Authority has prepared the NSW Food Safety Schemes Manual (Manual) to specify testing requirements for the following food safety schemes under the NSW Food Regulation 2025:

- dairy food safety scheme
- egg food safety scheme
- meat food safety scheme
- plant products food safety scheme
- seafood safety scheme
- vulnerable persons food safety scheme.

The Manual applies to all food businesses licensed under these schemes. The requirements referred to in the Food Regulation 2025, detailed within this document, are **mandatory**.

All licensees are required to have food safety programs and adhere to good manufacturing practices (GMP). The testing of finished products can be used in investigation, verifying corrective action, assisting in establishing benchmarks and identifying trends.

Product testing alone is not sufficient to demonstrate the safety of food because it has a high probability of not identifying contaminated product even when large sample numbers are tested, but it can be used to verify the effectiveness of the control measures outlined in the business' food safety program and associated documentation.

Microbiological testing must be done in a NATA approved laboratory

Every microbiological analysis of finished products and water specified in this Manual must be carried out in a laboratory accredited by the National Association of Testing Authorities, Australia (NATA) for the particular type of analysis to be undertaken. A list of NATA accredited laboratories can be found on the NATA website at nata.com.au

Through the NATA's Mutual Recognition Arrangement (MRA), laboratories accredited by the International Laboratory Accreditation Cooperation (ILAC) signatories are considered acceptable. A list of ILAC signatories can be found at ilac.org/signatory-search

Some tests can be done in-house

Some tests can be done in-house using a validated method, as indicated in this Manual. The only permitted tests that can be conducted in-house without holding NATA accreditation are:

- antimicrobial drug residues
- pH
- environmental swabbing for *Listeria*.

It is recommended that in-house laboratories take part in an inter-laboratory comparison (ILC) program to demonstrate proficiency for the testing being undertaken. If you take part in the inter-laboratory comparison, records of the ILC program must be kept for audit purposes.

Frequency of testing

The tables in this Manual outline the minimum testing frequencies for licensed businesses. The type of tests and their frequency are influenced by the risk status of the food and based on past experience and the possibility of the analytes being present in that particular food determined by the risk rating of the food and scientific data.

The testing frequency specified is based on the number of batches produced by the food business. A batch is defined as product made using the same process and/or packaged under the same conditions within a 24-hour period.

In the case where a product category is specified (for example, cheese, fresh cut, ready-to-eat meat) and the business produces more than one variety of this product category, then the business must select a different product line for sampling each time. This ensures that, over time, every product line manufactured is included in the sampling plan.

The first batch of products manufactured for sale must be tested and testing is then conducted at the specified frequency. Samples for testing must be sent to a laboratory within 48 hours after the product is produced and ready for sale. Testing should not be done at the end of the shelf-life of the product.

If a business wishes to implement an alternative sampling plan to that outlined in this Manual, the business must submit the proposed variation in writing to the Food Authority for approval by completing the *Apply to vary ready-to-eat (RTE) product testing* form and providing the supporting documents. The form can be found on the Food Authority's website at www.foodauthority.nsw.gov.au/resource-centre/forms.

Until the approval letter is received, testing must be conducted as outlined in this Manual. Failure to do this will result in an enforcement action.

For more details on how to do microbiological testing, see Appendix 1.

Reporting of failures

The Food Authority must be notified if any sample analysed fails to meet the standard set out in this Manual.

For the holder of the licence:

1. orally as soon as practicable and not later than 24 hours after the licence holder becomes aware of the results of the analysis by calling the Food Authority on 1300 552 406, and
2. in writing within 48 hours after the license holder becomes aware of the result of analysis. The *Notify a pathogen detection* form or *Notify a residue detection (dairy)* form must be used. They can be found on the Food Authority's website at www.foodauthority.nsw.gov.au/resource-centre/forms.

For the person in charge of a laboratory in which an analysis is carried out:

In writing within 24 hours after the analysis is completed using the *Notify a laboratory result* form that can be found on the Food Authority's website at www.foodauthority.nsw.gov.au/resource-centre/forms.

Please do not contact an individual officer.

Definitions

Term	Definition
Batch	Product made using the same process and/or packaged under the same conditions within a 24-hour period. Products must undergo the same process steps and have the same general characteristics (for example additives, pH and water activity). For example, a cooked roast beef uses different ingredients and undergoes a different process compared to a smoked cured ham, so they must be considered as different batches. For UCFM products, please see the specific definition in the *Manual for Manufacturing UCFM in NSW.*
Central Processing Unit (CPU)	A food business in which its principal activity involves processing of food for service in a vulnerable persons facility listed within Standard 3.3.1 or for delivery by a delivered meal organisation (DMO). The food is for service to six or more vulnerable persons at any given time and includes ready-to-eat potentially hazardous food. There may or may not be a transport step.
Listericidal process	A process that reduces the *Listeria monocytogenes* microorganism to a safe level.
Non-reticulated water	Any water supply not piped into a business by either a water utility or local council. It includes rainwater, ground water (bore water) and surface water (for example from a dam).
Ready-to-eat (RTE) food	A food product that is in a form that does not require additional preparation prior to consumption.
Seed sprouts in the Plant Products Food Safety Scheme	A germinated form of seeds and beans and typically consumed as an entire plant (root, seed and shoot). For example: alfalfa sprouts, onion sprouts, radish sprouts and mung bean sprouts. It does not include plants grown on soil, harvested at the first true leaf stage above the soil line and sold with the stem and leaf (for example wheatgrass, snow pea sprouts).
Standard Plate Count (SPC) - also referred to as Aerobic Plate Count (APC) or Total Viable Count (TVC)	A number of viable bacteria in a food product obtained by enumeration of colonies on an agar plate after a certain period of incubation at certain temperature with the presence of oxygen.
Treated non-reticulated water	Non-reticulated water that has been treated with chlorine or another suitable method to make it safe for food preparation and human consumption.
Validated method	A method that has been confirmed – by trials and objective evidence – to be able to detect its intended target analytes in a particular type of food.

Term	Definition
Water activity	The unbound water present in a food that can be used by microorganisms for growth.

Acronyms

cfu	Colony forming units
CPU	Central Processing Unit
MAP	Modified Atmosphere Packaging
RTE	Ready-to-eat
SPC	Standard Plate Count
TVC	Total Viable Count
UCFM	Uncooked comminuted fermented meat

Chapter 1: Dairy food safety scheme

Dairy processing

Section 51 of the Food Regulation 2025 defines dairy processing as the packaging, treating, cutting or manufacturing of dairy products, and the packing and storing of those products on the premises where they are packaged, treated, cut or manufactured, but does not include dairy primary production[1]. Dairy processing business means a food business involving dairy processing.

Dairy products include colostrum, milk (pasteurised or unpasteurised) and any food that contains at least 50% milk (pasteurised or unpasteurised) or any substance produced from milk (by weight measurement). Examples of dairy products (but not limited to): butter, cream, cheese, ice cream, ghee, liquid milk, milk powder, mousse, dairy-based dips and yoghurt.

Antibiotic notification

A dairy processing business that detects antibiotics in raw milk must notify the Food Authority orally within 24 hours on 1300 552 406 and in writing within 48 hours using the *Notify a residue detection (dairy)* form that can be found on the Food Authority's website at www.foodauthority.nsw.gov.au/resource-centre/forms.

Sampling and analysis

Licensed dairy processing businesses must comply with the sampling and analysis provisions of the dairy food safety scheme (Section 62) of the Food Regulation 2025.

Table 1.1 Water testing for dairy processing[2] businesses

Product to be tested		Test to be conducted, the limit and frequency
		E. coli
		Not detected or less than 1 cfu in 100 mL
Non-reticulated water used in connection with the production and processing of dairy products	Treated	Every 6 months

[1] Dairy primary production means the production of milk or colostrum for further processing for human consumption, including (a) feeding, grazing, keeping, and milking of milking animals, and (b) storage of milk on the premises at which the milking animals were milked (Section 51 of the Food Regulation 2025).
[2] Export registered facilities may have different water testing requirements.

Table 1.2 Chemical testing for dairy processing businesses

Product to be tested	Test to be conducted	Limit	Frequency
Unpasteurised milk for further processing including the production of raw milk cheese	Antimicrobial drug residues[3]	Level must be within the maximum permitted level as per Schedule 20 of the Food Standards Code (Code)	Every load of milk from farm on arrival at the processing facility

Table 1.3 Microbiological testing for dairy processing businesses

Product to be tested	Test to be conducted, the limit and frequency			
	Campylobacter	*E. coli*	*L. monocytogenes*	*Salmonella*
	Not detected in 25 mL	Not exceeding 3 cfu/mL	Not detected in 25 mL	Not detected in 25 mL
Unpasteurised goat's milk for human consumption[4]	Every 20 batches	Every 20 batches	Every 20 batches	Every 20 batches

Product to be tested	Test to be conducted, the limit and frequency			
	Coagulase positive staphylococci[5]	*E. coli*	*L. monocytogenes*	*Salmonella*
	Not exceeding 100 cfu/g	Not exceeding 10 cfu/g	Not detected in 25 g	Not detected in 25 g
Cheese made from raw milk[4,6]	Every batch	Every batch	Every batch	Every batch

[3] Testing can be undertaken in-house using a validated method.
[4] The Food Authority has assumed these products will support the growth of *L. monocytogenes* (see Appendix 2)
[5] The Code requires that raw milk cheese is free of staphylococcal enterotoxins. This test is not readily available, so testing for coagulase positive staphylococci (CPS) is mandated instead. Staphylococcal enterotoxin testing must be done if CPS exceeds 10^3 cfu/g at the end of moulding stage.
[6] Manufacturers of cheese made from raw milk must submit a production process pro forma to the Food Authority, which describes all the steps used to make a particular product.

Product to be tested (in alphabetical order)		Test to be conducted, the limit and frequency					
		Coagulase positive staphylococci	*E. coli*		*L. monocytogenes*[7]		*Salmonella*
		Not exceeding 100 cfu/g	Not exceeding 1 cfu/mL	Not exceeding 10 cfu/g	Not detected in 25 g or mL[8]	Not exceeding 100 cfu/g or mL[9]	Not detected in 25 g
Butter	Butter & ghee (salted or unsalted)	-	-	Every 20 batches	-	-	-
	Butter & ghee with post pasteurisation ingredients added	-	-	Every 20 batches	-	-	Every 20 batches
Cheese	Cheese	-	-	Every 20 batches	-	-	-
	Cheese with post pasteurisation ingredients added	-	-	Every 20 batches	Every 10 batches	Every 10 batches	Every 10 batches
	Soft and semi-soft cheese (moisture content greater than 39% **and** pH greater than 5.0)	-	-	Every 10 batches	Every 10 batches	Every 10 batches	Every 10 batches
Cream	Pasteurised cream products	-	Every 20 batches	-	Every 20 batches	Every 20 batches	-
Dairy-based	Dairy-based desserts & dips with pH exceeding 4.5 (for	Every 10 batches	-	Every 10 batches	Every 10 batches	Every 10 batches	-

[7] See Appendix 2 for characteristics of food and its ability to support the growth of *L. monocytogenes*.
[8] For products that can support the growth of *L. monocytogenes*.
[9] For products that cannot support the growth of *L. monocytogenes*.

Product to be tested (in alphabetical order)		Test to be conducted, the limit and frequency					
		Coagulase positive staphylococci	*E. coli*		*L. monocytogenes*[7]		*Salmonella*
		Not exceeding 100 cfu/g	Not exceeding 1 cfu/mL	Not exceeding 10 cfu/g	Not detected in 25 g or mL[8]	Not exceeding 100 cfu/g or mL[9]	Not detected in 25 g
desserts & dips	example, custard, mousse, kashta)						
	Dairy-based desserts & dips with post pasteurisation ingredients added and pH exceeding 4.5	Every 10 batches	-	Every 10 batches	Every 10 batches	Every 10 batches	Every 10 batches
Dried milk powder	Dried milk powder	-	-	-	-	-	Every 10 batches

Product to be tested (in alphabetical order)		Test to be conducted, the limit and frequency					
		Coagulase positive staphylococci	*E. coli*		*L. monocytogenes*[7]		*Salmonella*
		Not exceeding 100 cfu/g	Not exceeding 1 cfu/mL	Not exceeding 10 cfu/g	Not detected in 25 g or mL[8]	Not exceeding 100 cfu/g or mL[9]	Not detected in 25 g
Ice cream & edible ices	Frozen ice cream & edible ices (for example soft serve, gelato)	-	-	Every 20 batches	Every 20 batches	Every 20 batches	-
	Frozen ice cream & edible ices with post pasteurisation ingredients	-	-	Every 20 batches	Every 20 batches	Every 20 batches	Every 10 batches
	Refrigerated ice cream mixes (for example soft serve mix)	-	-	Every 10 batches	Every 10 batches	Every 10 batches	-
Milk	Pasteurised liquid milk products – plain, flavoured, modified	-	Every 10 batches[10]	-	Every 10 batches	Every 10 batches	-

[10] The Food Authority may accept an alternative testing arrangement as follows: every batch of pasteurised liquid milk product is tested for coliforms and it should not exceed 10 cfu/mL. If this limit is exceeded, then the batch must be tested for *E. coli* and it should not exceed 1 cfu/mL.

Product to be tested (in alphabetical order)		Test to be conducted, the limit and frequency	
		Salmonella	*Cronobacter*
		Not detected in 25 g	Not detected in 10 g
Powdered infant formula	Powdered infant formula[11] other than powdered follow-on formula	Every 10 batches	Every 10 batches
	Powdered follow-on formula[12]	Every 10 batches	-

[11] Infant formula means an infant formula product that satisfies by itself the nutritional requirements of infants under the age of 4 to 6 months.
[12] Follow-on formula means an infant formula product that is suitable for infants from the age of 6 months.

Chapter 2: Egg food safety scheme

Sampling and analysis

Licensed egg businesses must comply with the sampling and analysis provisions of the egg food safety scheme (Section 172) of the Food Regulation 2025.

Table 2.1 Water testing for egg businesses

Product to be tested		Test to be conducted, the limit and frequency
		E. coli
		Not detected or less than 1 cfu in 100 mL
Non-reticulated water used in connection with the production of eggs (including bird drinking water), processing of eggs, egg products, or blended egg product mixtures	Not treated	Every month
	Treated	Every 6 months

Table 2.2 Microbiological testing for egg primary food production businesses

Product to be tested	Test to be conducted, the limit and frequency	Sampling procedure[13]
	Salmonella Enteritidis	
	Not detected per sample	
Environmental swabs of individual shed where poultry are kept and each individual poultry housing area	Every 12 - 15 weeks	Individual swabs can be composited and tested as one sample.

[13] See Appendix 6 for the procedure for conducting a mandatory *Salmonella* Enteritidis testing at egg primary production premises.

Table 2.3 Microbiological testing for egg products and blended egg product mixture (a product consisting of at least 80% by weight of egg white or yolk or both)

Product to be tested	Test to be conducted, the limit and frequency
	Salmonella
	Not detected in 25 g
Pasteurised egg products (for example, pulp, peeled boiled eggs)	Every 10 batches
Pasteurised blended egg product mixture	Every 10 batches
Dried egg products	Every 20 batches

Methods of pasteurisation of egg products

Licensed egg businesses that pasteurise egg product and blended egg product mixture must comply with the pasteurisation provisions in Standard 4.2.5 of the Food Standards Code and using the equipment in accordance with the requirements outlined in this Manual. These requirements are outlined in the table below.

A business can also pasteurise eggs by an equivalent heat process using:

- another time and temperature combination, or
- by another process that produces an equivalent or greater lethal effect on pathogens in the egg products as would be achieved by pasteurisation requirements in the Food Standards Code.

Any alternative process must use equipment that complies with the requirements outlined in this Manual.

Table 2.4 Methods of pasteurisation of egg products

Method of pasteurisation	Pasteurisation equipment requirements	Verification and validation
Continuous flow	The equipment must include an indicating thermometer for product temperature at the end of the holding tube and for the cold product temperature.	Holding tube time must be (externally) validated every 5 years.
		The indicating thermometer must be compared with the continuous monitoring system each time the pasteuriser is operated (corrective action is required if the difference is more than 1°C).
		The indicating thermometers must be calibrated every 6 months (corrective action is required if the difference is more than 1°C).
	The equipment must include a continuous recording device for the pasteurisation temperature, sterilisation temperature, cold product temperature, mode of diversion and cleaning time and temperatures.	The following data must be continuously recorded each time the pasteuriser is operated: • pasteurising temperature • sterilising temperature • cold product temperature • mode of diversion device • cleaning time and temperatures.
		The recording thermometers must be calibrated every 6 months (corrective action is required if the difference is more than 1°C).
	Raw, partially treated product and cleaning systems must not contaminate the pasteurised product.	Pasteurisers must be pressure tested annually.
		The diversion temperature must be challenged during start-up and recorded each time the pasteuriser is operated.
		The pasteuriser must be sterilised for a minimum of 80°C for 10 minutes during start-up (on the cold side) and recorded each time the pasteuriser is operated.
		Pressure differentials must be checked and recorded each time the pasteuriser is operated (either by manually recording the psi on the pressure gauges or the computer system maintaining the pressure differentials).

Method of pasteurisation	Pasteurisation equipment requirements	Verification and validation
Batch	The equipment must include a hinged lid or removable cover and an agitator.	Vessel must be enclosed during pasteurisation.
	The equipment must include a head space thermometer, an indicating thermometer for product temperature, and a continuous monitoring system for time and temperature (for example data logger).	The following data must be recorded each time the pasteuriser is operated: • continuous pasteurising temperature • headspace temperature at the beginning and the end of the critical temperature cycle • indicating thermometer compared with the continuous monitoring system (corrective action is required if the difference is more than 1°C) • pasteurised product cooling time and temperatures (in accordance with clause 7 of Standard 3.2.2 of the Food Standards Code).
		The indicating and recording thermometers must be calibrated every 6 months (corrective action is required if the difference is more than 1°C).
	Raw, partially treated product and cleaning systems must not contaminate the pasteurised product.	Effective seals on valves and outlets.

Chapter 3: Meat food safety scheme

Abattoirs

Section 69 of the Food Regulation 2025 defines abattoir as premises used for or in connection with the slaughtering of abattoir animals for human consumption. Abattoir animal means the following animals (if they are not game animal): an animal of the bovine (cow, ox, buffalo), bubaline (antelope), camelidae (camel), caprinae (goat), cervidae (deer), ovine (sheep), porcine (pig) or soliped (horse) species, a bird, a crocodile and a rabbit.

Sampling and analysis

Licensed abattoirs must comply with the sampling and analysis provisions of the meat food safety scheme (Section 108) of the Food Regulation 2025.

Table 3.1 Water testing[14] for abattoirs

Product to be tested		Test to be conducted, the limit and frequency
		E. coli
		Not detected or less than 1 cfu in 100 mL
Non-reticulated water used in connection with the operation of the abattoir	Treated	Every 6 months

Meat and poultry meat processing plants

Section 69 of the Food Regulation 2025 defines meat and poultry meat processing plants as premises where meat (including game meat) for human consumption is stored, packed, packaged, processed, treated, boned or cut up; or processed meat is produced or is further processed. This includes raw meat and the production of RTE and uncooked comminuted fermented meat (UCFM) products.

Sampling and analysis

Licensed meat and poultry meat processing plants must comply with the sampling and analysis provisions of the meat food safety scheme (Section 108) of the Food Regulation 2025.

[14] Export registered facilities may have different water testing requirements.

Table 3.2 Microbiological testing for meat processing plants producing RTE meat and poultry meat products.

Product to be tested		Test to be conducted, the limit and frequency				
		E. coli	*L. monocytogenes*[15]		*Salmonella*	Environmental & work surface testing for *Listeria* spp[16]
		Not exceeding 3 cfu/g	Not detected in 25 g[17]	Not exceeding 100 cfu/g[18]	Not detected in 25 g	No positive detection
RTE meat and poultry meat product (excluding UCFM and dried meat)	RTE meat and poultry meat product	Every 10 batches	Every 10 batches	Every 10 batches	Every 10 batches	-
	Sliced or whole packaged RTE meat and poultry meat products (vacuum packed or MAP)	Every 10 batches	Every 10 batches	Every 10 batches	Every 10 batches	Every month (5 samples collected pre and post operations)
	Whole packaged RTE meat and poultry meat products that receive a validated post pack pasteurisation step[19]	Every 20 batches	Every 20 batches	Every 20 batches	Every 20 batches	-

[15] See Appendix 2 for characteristics of food and its ability to support the growth of *L. monocytogenes*.
[16] See Appendix 3 for a guide to develop an environmental monitoring program
[17] For products that can support the growth of *L. monocytogenes*.
[18] For products that cannot support the growth of *L. monocytogenes*.
[19] A validated post pack pasteurisation step means that the business has demonstrated to the Food Authority that the time and temperature used (or an equivalent process) provides a minimum of 6-log reduction (99%) of *L. monocytogenes*. Please refer to Appendix 5 for more information.

Product to be tested		Test to be conducted, the limit and frequency
		E. coli
		Not exceeding 3.6 cfu/g or MPN/g
Uncooked comminuted fermented meat (UCFM)[20]	Finished product	Every batch

Meat retail premises

Section 69 of the Food Regulation 2025 defines meat retail premises as premises where meat is sold by retail and on which raw meat carcases or parts of raw meat carcases are processed in some way, including by boning, slicing, or cutting, or on which processed meat is produced or further processed.

Sampling and analysis

Licensed meat retail premises must comply with the sampling and analysis provisions of the meat food safety scheme (Section 108) of the Food Regulation 2025.

[20] Manufacturers of UCFM must comply with the '*Manual for manufacturing UCFM in NSW*' which can be found on the Food Authority's website

Table 3.3 Microbiological testing for retail meat premises producing RTE meat and poultry meat products.

Product to be tested		Test to be conducted, the limit and frequency		
		L. monocytogenes[21]		Environmental & work surface testing for *Listeria* spp[22]
		Not detected in 25 g[23]	Not exceeding 100 cfu/g[24]	No positive detection
RTE meat and poultry meat product (excluding UCFM and dried meat)	Sliced or whole packaged RTE meat and poultry meat products (vacuum packed or MAP)	Every 10 batches	Every 10 batches	Every month (5 samples collected pre and post operations)
	Whole packaged RTE meat and poultry meat products that receive a validated post pack pasteurisation step[25]	Every 20 batches	Every 20 batches	-

[21] See Appendix 2 for characteristics of food and its ability to support the growth of *L. monocytogenes*.
[22] See Appendix 3 for a guide to develop an environmental monitoring program
[23] For products that can support the growth of *L. monocytogenes*.
[24] For products that cannot support the growth of *L. monocytogenes*.
[25] A validated post pack pasteurisation step means that the business has demonstrated to the Food Authority that the time and temperature used (or an equivalent process) provides a minimum of 6-log reduction (99%) of *L. monocytogenes*. Please refer to Appendix 5 for more information.

Product to be tested		Test to be conducted, the limit and frequency
		E. coli
		Not exceeding 3.6 cfu/g or MPN/g
Uncooked comminuted fermented meat (UCFM)[26]	Finished product	Every batch

[26] Manufacturers of UCFM must comply with the '*Manual for manufacturing UCFM in NSW*' which can be found on the Food Authority's website

Rendering plant

Section 69 of the Food Regulation 2025 defines rendering plants as premises where animal by-products are rendered or boiled down. It does not include an abattoir or a knackery.

Sampling and analysis

Licensed rendering plants must comply with the sampling and analysis provisions of the meat food safety scheme (Section 108) of the Food Regulation 2025.

Table 3.4 Microbiological testing for rendering plant

Product to be tested	Test to be conducted, the limit and frequency	
	Salmonella	*Clostridium perfringens*
	Not detected in 25 g	Not exceeding 10 cfu/g
Rendered animal by-product	Every week. From composite sub samples totalling to 250g. The sub samples should be collected on every production day.	Every 12 months or when there is a significant change to process or equipment. Each cooker or cooking process must be tested separately. Samples are taken over 10 consecutive days after rendering as specified in the AS 5008:2007.[27]

[27] AS 5008:2007: Hygienic rendering of animal products

Chapter 4: Plant Products food safety scheme

Section 113 of the Food Regulation 2025 defines plant product as fresh cut fruit, fresh cut vegetables, seed sprouts, unpasteurised juice or vegetables in oil.

Section 114 defines a plant products business as a business involving the handling of plant products, but only if any of the following activities are carried out:

- extracting juice from vegetables or fruits without pasteurising the juice,
- processing seed sprouts, fruits or vegetables to produce plant products, including (but not limited to) cutting, peeling, preserving and cooking,
- storing plant products,
- transporting plant products,
- packaging plant products.

Sampling and analysis

Licensed plant product businesses must comply with the sampling and analysis provisions of the plant products food safety scheme (Section 117) of the Food Regulation 2025.

Table 4.1 Water testing for plant products businesses

Product to be tested		Test to be conducted, the limit and frequency
		E. coli
		Not detected or less than 1 cfu in 100 mL
Non-reticulated water used in connection with the production and processing of plant products	Treated	Every 6 months

Table 4.2 Microbiological testing for plant products businesses

Product to be tested		Test to be conducted, the limit and frequency		Sampling procedure
		E. coli	*Salmonella*	
		Less than 100 cfu/g	Not detected in 100 mL	
Seed sprouts	Seed used for sprouting (pre-screening test)	-	Every delivery batch of seeds	For each shipment, collect a minimum of 25g sample from each bag to make up 3 kg sample. Grow the seed as per normal procedure. After a minimum of 48 hours of seed being grown, collect a total of 1L of irrigation water from all sprouting containers and test it.
	Spent irrigation water used for seed sprouting	-	Every 10 batches	After a minimum of 48 hours of seed being grown, collect a total of 1L of irrigation water from all sprouting containers and test it.
	Seed sprouts (finished product)	Every 10 batches	-	Collect 100g sample of any finished single sprout-type from each process line and test it.

Product to be tested		Test to be conducted, the limit and frequency		
		L. monocytogenes[28]		*Salmonella*
		Not detected in 25 g[29]	Not exceeding 100 cfu/g[30]	Not detected in 25 g
Fresh cuts	Fresh cut fruits	Every 10 batches	Every 10 batches	Every 10 batches
	Fresh cut vegetables	Every 10 batches	Every 10 batches	Every 10 batches
Unpasteurised juice	Unpasteurised fruit & vegetable juice	-	-	Every 10 batches

[28] See Appendix 2 for characteristics of food and its ability to support the growth of *L. monocytogenes.*
[29] For products that can support the growth of *L. monocytogenes.*
[30] For products that cannot support the growth of *L. monocytogenes.*

Chapter 5: Seafood safety scheme

Section 124 of the Food Regulation 2025 defines seafood business as a business involving in the handling of seafood, including (but not limited to) the carrying on of any of the following activities:

- cultivating, harvesting or collecting shellfish,
- depuration or wet storage of shellfish,
- cultivating spat,
- processing of seafood, including (but not limited to) canning, cooking, filleting, gilling and gutting, high pressure processing, shucking, skinning, smoking and preserving,
- packaging seafood,
- storing seafood,
- transporting seafood, except transporting seafood from retail premises to the consumer or in a vehicle from which the seafood will be sold by retail,
- wholesaling seafood.

Sampling and analysis

Licensed seafood businesses must comply with the sampling and analysis provisions of the seafood food safety scheme (Section 131) of the Food Regulation 2025.

Table 5.1 Water testing for seafood processing businesses

Product to be tested		Test to be conducted, the limit and frequency
		E. coli
		Not detected or less than 1 cfu in 100 mL
Non-reticulated water used in connection with the production and processing of seafood	Treated	Every 6 months

Table 5.2 Microbiological testing for seafood processing businesses producing, handling or re-packing RTE products

Product to be tested	Test to be conducted, the limit and frequency			Sampling Procedure
	E. coli	*L. monocytogenes*[31]		
	Not exceeding 2.3 cfu/g or MPN/g	Not detected in 25 g[32]	Not exceeding 100 cfu/g[33]	
Opened oysters	Every 20 batches	-	-	Without contaminating it (as per normal opening procedure), transfer the oyster meat into a sterile container (for example a clean ziplock bag) and send it to the lab.
Packaged oysters (oyster meat packaged in food grade containers with water/brine or vacuum-packed)	Every 20 batches	-	-	Send the finished packaged product.
Sliced or whole packaged cooked and/or smoked seafood (vacuum packed or MAP)	-	Every 10 batches	Every 10 batches	Send the finished packaged product.

Specific requirements

NSW shellfish industry manual

Shellfish businesses should refer to the NSW Shellfish Industry Manual (PDF, 590 KB) for testing requirements for harvested product and environmental testing. The *NSW shellfish industry manual* is available from the Food Authority's website at www.foodauthority.nsw.gov.au.

[31] See Appendix 2 for characteristics of food and its ability to support the growth of *L. monocytogenes.*
[32] For products that can support the growth of *L. monocytogenes.*
[33] For products that cannot support the growth of *L. monocytogenes.*

Chapter 6: Vulnerable persons food safety scheme

NSW businesses that serve food to vulnerable persons must meet specific additional food standards set out in the Food Regulation 2025 vulnerable persons food safety scheme. These businesses include hospitals, nursing homes, hospices, same-day aged care services, and respite services.

Sampling and analysis

Licensed vulnerable persons businesses must comply with the sampling and analysis provisions of the vulnerable persons food safety scheme (Section 153) of the Food Regulation 2025.

Table 6.1 Water testing for vulnerable persons businesses

Product to be tested		Test to be conducted, the limit and frequency
		E. coli
		Not detected or less than 1 cfu in 100 mL
Non-reticulated water used in connection with the handling of food in the operation of the business	Treated	Every 6 months

Specific requirements

Guidelines for food service to vulnerable persons

Further recommendations for licensed vulnerable persons businesses are contained in the Guidelines for food service to vulnerable persons (PDF 503KB). The *Guidelines for food service to vulnerable persons* is available from the Food Authority's website at www.foodauthority.nsw.gov.au.

Central Processing Unit

The mandatory microbiological testing for CPU can be found in Table 6.2.

Table 6.2 Microbiological testing for CPU

Product to be tested	Test to be conducted, the limit and frequency				
	Standard Plate Count[34]	*E. coli*	*L. monocytogenes*[35]		*Salmonella*
	Not exceeding 10^5 cfu/g	Not exceeding 3 cfu/g	Not detected in 25 g[36]	Not exceeding 100 cfu/g[37]	Not detected in 25 g
Sliced or whole packaged RTE meat products for consumption without further heat treatment (vacuum packed or MAP products)	-	Every 20 batches	Every 20 batches	Every 20 batches	Every 20 batches
Texture modified foods (post cooking)	-	Every 20 batches	Every 20 batches	Every 20 batches	Every 20 batches
Extended shelf life cook chill foods - tested at the end of the cooking process[38] (for example, cooked using cook tank, oven, kettle cooking, brat pan)	Every 20 batches	-	-	-	-

[34] Category B for Standard Plate Count applies to ready-to-eat foods that are fully cooked with further handling or processing before consumption (NSW Food Authority's 'Microbiological quality guide for ready-to-eat foods'). However, the limit in this Manual is more stringent due to the vulnerability of the intended consumers of the food.
[35] See Appendix 2 for characteristics of food and its ability to support the growth of L. monocytogenes.
[36] For products that can support the growth of L. monocytogenes.
[37] For products that cannot support the growth of L. monocytogenes.
[38] Extended shelf-life products are products that have more than 10 days shelf life. They must receive a heat treatment to deliver a minimum of 6 log reduction in non-proteolytic *Clostridium botulinum* (for example 90°C for 10 minutes or equivalent) and be packaged aseptically. Refer to the *Guidelines for food service to vulnerable persons* on the Food Authority's website for further information.

More information

- Visit foodauthority.nsw.gov.au
- Email food.contact@dpird.nsw.gov.au
- Phone 1300 552 406

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