

REQUIREMENTS FOR EGG GRADERS

Egg graders need to meet the requirements of the Food Standards Code and the Food Regulation 2015.

This factsheet is for egg businesses that wash eggs and/or examine eggs to detect cracks (i.e. conduct the final crack detection before sale).

Meet the requirements of the Food Standards Code

Egg graders need to meet the requirements of the Food Standards Code as set out in:

- Standard 3.2.2 Food Safety Practices and General Requirements
- Standard 3.2.3 Food Premises and Equipment
- Standard 4.2.5 Primary Production and Processing Standard for Eggs and Egg Products

These standards cover general hygienic food handling practices, premises and equipment requirements.

Implement a Food Safety Program

Egg graders are required under Standard 3.2.1 of the Food Standards Code to implement a documented food safety management program.

A food safety program is a written document that shows a business has examined their food production activities and identified all potential food safety hazards. It outlines how these hazards are controlled, corrective action if they are not controlled, regular review of the program, and appropriate records to be kept.

The Food Authority has developed a [template food safety program](#) which can be adapted for your business requirements.

Minimum food safety program requirements

Approved supplier program – Egg receipt

Businesses that receive eggs must only accept eggs that have been protected from the likelihood of contamination.

To comply with this requirement egg graders should:

- only purchase eggs from reputable suppliers
- maintain a contact list (ie. names and business address) of all their suppliers.

Approved supplier program – Other inputs

Other inputs that may potentially contaminate eggs must be suitable for contact with food.

These include:

- packaging materials
- detergents and sanitisers used in the egg wash water
- oil used in the oiling of eggs.

To comply with this requirement egg graders should obtain information from their suppliers that demonstrates all inputs are suitable for contact with food.

Sale and processing of dirty eggs

Dirty eggs must not be sold for retail sale. Dirty eggs must be either:

- cleaned so that visible faeces, soil and other matter is removed from the shell
- sold to a licensed egg business, or
- discarded.

Discarded dirty eggs should be disposed of hygienically and away from clean, intact eggs.

Dry cleaning dirty eggs

Egg graders should use material that is dry, clean and not reused for cleaning eggs. For this reason disposable paper towels are recommended. If a dry cloth is used, an adequate supply should be available so that only clean cloth is passed over the egg each time. Dirty cloths should be cleaned and sanitised after each use. If an alternative material is used for this process, it should be suitable for contact with food.



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Washing dirty eggs

As egg shells are porous, washing can allow microorganisms to enter through the pores of the shell. If a negative pressure is created within the egg it may draw wash water into the egg. Therefore, wash water should be held at an appropriate temperature and pH to minimise the potential for contamination to occur. The washing process should also be continuous, so that eggs are not allowed to stand or soak in the wash water, and eggs should be dried after washing. If egg shells are left wet the risk of microorganisms entering the egg is increased.

Egg graders that wash eggs must have a documented procedure for this process to ensure that contamination from the wash water is minimised.

This procedure should outline:

- the temperature of the water to be used at all stages of the washing process (eg wash, sanitise and rinse) with appropriate temperature differentials observed (eg in a three stage wash process the wash water should be between 41 and 44°C, the sanitising water temperature should be 2 to 3°C higher than the wash water temperature, and the rinsing water temperature should be 2 to 3°C higher than the sanitising water temperature)
- the pH of the wash water (eg pH \geq 10.5 to be obtained)
- the detergent/sanitiser concentration
- the corrective action for noncompliance with the washing temperatures or pH values, and
- the egg drying process following washing.

The pH and temperature of the water at all stages of the washing process must be recorded for each batch of eggs washed.

Water supply and testing

Non-reticulated water used in the washing of eggs must be tested in accordance with the *NSW Food Safety Schemes Manual*. These requirements are outlined below in Table 1.

Businesses wanting to use recycled water are required to apply in writing to the Food Authority. Applications will be considered on a case-by-case basis.

Businesses that use a non-reticulated water supply and treat the water with chlorine or another suitable method are required to test this water daily for residual chlorine levels and maintain records of the water treatment. Food

Safety Officers will review monitoring records and test results.

For more information on how to treat a non-reticulated water supply refer to the *Guidelines for the use of non-potable water in food businesses* published by the Department of Human Services in Victoria. This document is available at www.health.vic.gov.au

E.coli testing must be conducted by a NATA accredited laboratory. Laboratories are accredited by the National Association of Testing Authorities (NATA) for specific methods. Businesses can search for a NATA accredited laboratory at www.nata.asn.au

The Food Authority must be notified verbally within 24 hours if any sample fails the standards specified in Table 1. This information should be directed to the Food Authority's helpline on 1300 552 406. Businesses will be referred to a representative of the Compliance, Investigation and Enforcement Unit for advice on the appropriate action that needs to be taken. Notification of any sample failure must also be made in writing to the Food Authority within seven days of the business being aware of the results.

Table 1: Non-reticulated water testing requirements

What to test	Test to be conducted	Limit	Frequency
Non-reticulated water used in the washing of eggs	E. coli	Not detected in 100mL	Not treated – Every month
			Treated – Every 6 months

Crack detection

All eggs intended for sale must undergo crack detection using candling or an equivalent demonstrated method of crack detection. Visual crack detection without a backlight is not acceptable.

Egg graders that conduct crack detection must have a documented procedure for the detection and segregation of cracked eggs.

This procedure should outline:

- the method of crack detection used (eg. candling) and the parameters used to identify cracked eggs
- the method used to verify the effectiveness of crack detection



- the corrective action to be taken when cracked eggs are identified (eg. all cracked eggs must be segregated from whole intact eggs), and
- how cracked eggs are labelled for traceability.

Records must be kept of the date of egg production and quantity of cracked eggs identified.

Storage of cracked eggs

Eggs that have undergone crack detection and have been identified as cracked must be stored to prevent or minimise the growth of Salmonella.

Temperature control must be implemented to prevent the breakdown of the yolk membrane, and consequently prevent any contaminating Salmonella from growing. This temperature is outlined below in Table 2.

Table 2: Storage temperature for cracked eggs

Food	Storage temperature	Justification
Cracked eggs	< 8°C	Code of Practice for the Manufacture of Egg products (AECL, February 2008) Salmonella is unlikely to grow at < 8°C

Daily product and/or air temperature records (eg. using a thermometer or a continuous data logger record) must be maintained to demonstrate cracked eggs are being stored in accordance with the requirements outlined above in Table 2.

Temperature measuring devices must be easily accessible and demonstrate accuracy of $\pm 1^{\circ}\text{C}$.

Sale and use of cracked eggs

Cracked eggs are eggs with a cracked shell (where a crack is visible to the naked eye or by candling), including a broken egg.

Cracked eggs must not be made available for retail sale or catering purposes.

Egg graders that sell eggs within NSW that have undergone crack detection and have been identified as cracked must demonstrate that they are only sold to a licensed egg business by maintaining a copy of the purchaser's current licence.

The following records must be kept for the sale of cracked eggs:

- the names and addresses of the person or businesses to whom the eggs are sold
- the dates on which the eggs are sold
- the lot identification numbers of the eggs sold, and
- the quantity of eggs sold.

Labelling of eggs

Eggs sold for retail sale must comply with Part 1.2 *Labelling and Other Information Requirements* of the Code.

The following core information must be provided with each delivery of eggs sold for non-retail sale (i.e. Standard 1.2.2 *Food Identification Requirements* of the Code):

- the name of the food
- egg grader's business name and address, and
- lot identification (date marking may be used in lieu of the lot identification)

Additionally, the rest of Part 1.2 *Labelling and Other Information Requirements* of the Code must be available upon request if businesses sell eggs for non-retail sale. This non-core information enables the purchaser to comply with the rest of the labelling requirements in the Code.

Egg stamping

All eggs must be uniquely and individually stamped with a unique identifier (usually a number or code) so that they can be traced back to the producer.

The Food Authority can supply a free manual egg stamp and one pack of five ink refills to small producers (those who produce fewer than 1000 eggs per day).

Cleaning and sanitation procedure

Egg graders must implement a documented cleaning schedule that identifies:

- all fixtures, fittings and equipment used in the grading of eggs
- the frequency of cleaning
- how all fixtures, fittings and equipment are cleaned and sanitised
- how food contact surfaces and utensils are sanitised (if applicable), and
- chemical usage (eg. strength, contact times, temperature).



All fixtures, fittings and equipment must be fit for their intended use.

Routine internal cleaning and sanitation inspections must be undertaken, and records maintained for corrective action taken on any identified issues.

Cleaning chemicals must be suitable for contact with food and used in accordance with the manufacturer's instructions.

Recommended practices that should also be implemented by egg graders

The Food Authority recommends that egg graders should also implement the following practices. The use of the word 'should' means that these practices are suggested but not legally required.

Storage of eggs

Eggs should be stored at < 15°C and retail packed (where applicable) within 96 hours of lay, or stored at an equivalent temperature/time combination to maintain the suitability of eggs (outlined below in Table 3). For example, eggs stored at 20°C should be packed within 48 hours of lay.

Table 3: Egg storage temperature/time combinations

Storage temperature (°C)	Maximum storage time prior to packaging (days)
5	11
15	4
20	2

Daily product and/or air temperature records (eg using a thermometer or a continuous data logger record) should be maintained to demonstrate eggs are being stored and maintained in accordance with the requirements outlined above in Table 3.

Temperature measuring devices should be easily accessible and demonstrate accuracy of $\pm 1^{\circ}\text{C}$.

More information

- visit the Food Authority's website at www.foodauthority.nsw.gov.au/industry
- phone the helpline on 1300 552 406

For information on the Food Standards Code:

- visit the Food Standards Australia New Zealand's (FSANZ) website at www.foodstandards.gov.au

About the NSW Food Authority: The NSW Food Authority is the government organisation that helps ensure NSW food is safe and correctly labelled. It works with consumers, industry and other government organisations to minimise food poisoning by providing information about and regulating the safe production, storage, transport, promotion and preparation of food.

Note: This information is a general summary and cannot cover all situations. Food businesses are required to comply with all of the provisions of the Food Standards Code and the *Food Act 2003* (NSW).



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