

PROPOSAL P301

**PRIMARY PRODUCTION AND PROCESSING
STANDARD FOR EGGS & EGG PRODUCTS**

**CURRENT FOOD SAFETY MANAGEMENT FOR THE
AUSTRALIAN EGG AND EGG PRODUCTS INDUSTRY**

September 2009

Current food safety management for the Australian egg and egg products industry

1 State and Territory Legislation

The production of eggs and egg products is currently regulated to varying degrees by the Departments of Health and Primary Industries within each State and Territory. Under each State and Territory Food Act unsuitable or unsafe eggs and egg products cannot be sold. Producers and processors must comply with the relevant requirements of the Code, for example, labelling requirements and the prohibition of selling cracked eggs for catering and retail.

A summary of State and Territory legislative framework for eggs and egg products is given in Table 1.

Queensland has developed legislation for mandatory Food Safety Schemes for the egg and egg products industries. This Scheme essentially requires primary producers of eggs to be licensed and to implement food safety programs.

The **Queensland** Food Safety Scheme for Eggs and Egg Products (Egg Scheme) commenced on 1 January 2005 and is enforced by Safe Food Production Queensland¹. The requirements of the scheme (food safety programs) are applicable to on-farm practices including egg production, grading and packaging, transport and traceability of eggs and egg products. Food businesses manufacturing egg products are administered by Queensland Health and are licensed by Local Government under the *Food Act 2006*. The Queensland scheme encompasses all egg producers, regardless of flock size and/or production quantities. Safe Food Production Queensland has produced a Workbook to accompany their Egg Scheme.

Tasmania has introduced an *Egg Industry Act 2002*² which establishes a framework for the egg industry to adopt on-farm Quality Assurance programs. This Act requires 'Egg Production Programs' for on-farm activities (production, grading and pulping) of egg producers keeping more than 20 hens and for off-farm grading. The Egg Production Program must meet the relevant criteria for food safety, animal welfare, biosecurity, environmental impact and labelling standards. Further activities such as off-farm pulping, egg product processing, transport and distribution and retail sales are covered by the Tasmanian *Food Act 2003*.

Egg processing and use of eggs by the retail and food service sector fall within the definition of food businesses and are required to comply with the requirements in the Code under State and Territory Food Acts. Queensland has included egg processing with egg production in its food safety scheme for eggs and requires egg processors for example, businesses that heat treat liquid egg, to implement food safety programs. Tasmania requires all food businesses electing to make raw egg products to comply with its *Manufacturing Controls for Raw Egg Products 2008*. This targets the food service sector which uses eggs to make raw egg products such as mayonnaise, aioli and béarnaise sauce and is a condition of business registration.

¹ [Safe Food Queensland - eggs & egg products](#) ((accessed July 2009)

² <http://www.dpiwe.tas.gov.au/inter.nsf/WebPages/CART-67DVVB?open> (accessed July 2009)

South Australia is and **New South Wales** are proposing regulations to control egg production.

The **Victorian** Government requires all food businesses, except those of minimal risk, to have food safety programs under the Victorian *Food Act 1984*. This means that egg processing businesses operating in Victoria are obliged to comply with requirements for food safety programs that are consistent with Standard 3.2.1. Primary production businesses are exempt from these requirements.

Table 1: State/Territory legislation controlling egg producers and processors

State/Responsible Authority	Legislation	Application/Requirements
<p>QLD (Safe Food Qld)</p>	<p><i>Food Production (Safety) Act 2000</i></p> <p><i>Food Production (Safety) Regulation 2002 – Egg Scheme</i></p>	<p>The egg scheme applies for the production of eggs and egg products, including, for example, the following:</p> <ul style="list-style-type: none"> - rearing a bird at an egg production farm for egg production; - growing stock food at an egg production farm for consumption by a bird to be used for egg production; - producing eggs at an egg production farm, including under a preferred supplier arrangement; - producing eggs at an egg production farm, including under a preferred supplier arrangement; - storing eggs at an egg production farm, egg processing facility or wholesaler’s premises; - transporting eggs or egg products— <ul style="list-style-type: none"> (i) from an egg production farm to an egg processor or wholesaler; or (ii) from an egg processor to a wholesaler; or (iii) from a wholesaler to an egg processor; or (iv) within an egg production farm, egg processing facility or wholesaler’s premises; or (v) from an egg producer, egg processor or wholesaler to a retailer, manufacturer or commercial user; - handling eggs or egg products at an egg production farm, egg processing facility or wholesaler’s premises; - washing and grading eggs, including assessing eggs for cracks; - off-farm sales of eggs; - processing eggs to produce egg products; - pasteurising egg products. <p>A condition of accreditation under the egg scheme requires the business to develop and implement a food safety program.</p>
<p>(Queensland Health)</p>	<p><i>Food Act 2006</i></p>	<p>Food businesses regulated under the <i>Food Act 2006</i> (e.g. egg product manufacturers, retailers) are required to be licensed but not required to have a food safety program.</p>

State/Responsible Authority	Legislation	Application/Requirements
NSW (NSW Food Authority)	<i>Food Act 2003</i>	Proposed Egg and Egg Products Scheme. Currently there are no NSW Food Act /Food Regulatory requirements on egg farms. Egg processors (business that pulp and/or pasteurise eggs) are subject to the minimum food safety requirements set out in Standards 3.2.2 and 3.2.3.
TAS (Department of Health and Human Services) (Department of Primary Industries & Water)	<i>Food Act 2003</i> <i>Egg Industry Act 2002</i>	There are no specific requirements for eggs or egg products under the <i>Food Act, 2003</i> . The <i>Egg Industry Act, 2002</i> requires an ‘egg production program’ for on-farm activities (production, grading, pulping) that meets the relevant criteria for food safety, animal welfare, biosecurity, environmental impact and labelling standards. The ‘food safety criteria’ used are those in the AECL National Egg Quality Assurance Program.
ACT (Department of Health/Environmental Health)	<i>Food Act 2001</i> <i>Egg (Labelling and Sale) Act 2001</i>	There are no specific requirements for eggs or egg products under the <i>Food Act, 2001</i> . The <i>Egg (Labelling and Sale) Act, 2001</i> defines the conditions under which hens are for the different production systems. It is an offence to sell eggs produced by a hen that has been kept in a way that is not consistent with these definitions.
NT (Department of Health & Community Services)	<i>Food Act 2004</i>	There are no specific requirements for eggs or egg products under the <i>Food Act, 2004</i> .
SA (Department of Health)	<i>Food Act 2001</i>	There are no specific requirements for eggs or egg products under the <i>Food Act, 2001</i> .
VIC (Department of Human Services)	<i>Food Act 1984</i>	Food businesses are required to have food safety programs. There are no specific requirements for eggs or egg products under the <i>Food Act, 1984</i> .
WA	<i>Food Bill 2005</i>	There are no specific requirements for eggs or egg products under the proposed Act

State/Responsible Authority	Legislation	Application/Requirements
(Department of Health)	(will replace <i>Marketing of Eggs Act, 1945</i> and <i>Egg Grading and Packing Code, 1989</i>)	

3 Import and export requirements

3.1 Export

Less than 1% of the national egg production is exported. Exports of egg products in 2004 were 1,600 tonnes valued at \$5M³.

Eggs and egg products exported from Australia and intended for human consumption are regulated by the *Export Control Act 1982*. Two Orders made under the Act contain provisions relevant to eggs and egg products: general requirements are contained in the *Export Control (Prescribed Goods – General) Order 2005* and specific egg requirements are contained in the *Export Control (Eggs and Egg Products) Orders 2005*.

The *Export Control (Prescribed Goods – General) Order 2005* covers the administrative areas of legislation that are common to all food commodities including requirements for registration of establishments, trade description requirements, packing requirements and export permits. These orders cover all prescribed goods, including eggs and egg products. The *Export Control (Eggs and Egg Products) Orders 2005*⁴ detail specific standards for the preparation of eggs and egg products including food safety and suitability, structural standards, operational hygiene, preparation and transport, product standards, trade description and identification, tracing systems, integrity and transfer requirements. Examples of requirements contained in these standards are given in Table 1.

Establishments where the preparation of eggs and/or egg products for export takes place must be registered under the *Export Control (Prescribed Goods – General) Order 2005*. The occupier of the registered establishment must have an ‘approved arrangement’ that complies with the requirements for management of food safety and suitability. The minimum requirements for the approved arrangement are to have in place a Hazard Analysis Critical Control Point (HACCP) plan, document control and identification of the applicable requirements of the importing country if they extend beyond the requirements of these Orders.

The *Export Control (Eggs and Egg Products) Orders 2005* only apply to eggs and egg products produced from a hen of the species *Gallus gallus*. The *Eggs and Egg Products Orders* only apply to the export of over 10 litres of egg product, or over 10 kilograms of eggs or egg products in the one consignment, and they do not apply to eggs and egg products exported to New Zealand.

³ DAFF personal communication

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[\(http://www.comlaw.gov.au/ComLaw/Legislation/LegislativeInstrument1.nsf/all/search/2AE749BA1BF70F20CA25707D007AD2EF?OpenDocument\)](http://www.comlaw.gov.au/ComLaw/Legislation/LegislativeInstrument1.nsf/all/search/2AE749BA1BF70F20CA25707D007AD2EF?OpenDocument) (accessed July 2009)

Table 2: Examples of requirements for exporting eggs and egg products⁵

Export Standards	Examples of requirements contained in the Standards
Food safety and suitability	<p>The occupier of the registered establishment must:</p> <ul style="list-style-type: none"> • Must have a documented HACCP plan and ensure documentation <i>and</i> compliance with the importing country's requirements if the requirements of these Orders are not sufficient. • Must have documented management practices, organisational structure, provision of resources and the provision of personnel and their competence.
Structural requirements	<p>The premises must:</p> <ul style="list-style-type: none"> • Facilitate preparation of eggs and egg products that are fit for human consumption; • Permit the premise to be cleaned and sanitised; • Have a waste system that effectively disposes of and, if necessary, treats all sewage and waste, including during peak load; • Have adequate ventilation to effectively minimise the risk of airborne contamination.
Operations hygiene	<ul style="list-style-type: none"> • A documented program of operations controls for the hygienic preparation of eggs and egg products; • Premises and equipment must be maintained to a standard of cleanliness; • Floors, walls, ceilings, other fixtures and fittings must be cleaned and sanitised whenever it is necessary to do so to prevent the contamination of eggs and egg products; • Hazardous substances must not contaminate eggs and egg products.
Preparation and transport	<ul style="list-style-type: none"> • Eggs and egg products must not be sourced from where it is believed they can be contaminated by potentially harmful pathogens, or potentially harmful substances such as pesticides, fungicides, heavy metals, natural toxicants or other contaminants; • Cracked eggs cannot be exported as whole eggs; • Cracked egg with leaking membranes cannot be exported as food.
Product standards	<p>Unless the importing country specifies alternative requirements, eggs, egg products and ingredients of egg products must:</p> <ul style="list-style-type: none"> • not exceed the levels stated in the Code for metal or non-metal contaminants, agricultural or veterinary chemicals, food additives, processing aids, vitamins, minerals or added nutrients; and • meet the microbiological limits specified in the Code.
Trade description	<ul style="list-style-type: none"> • Eggs and egg products for export must have a trade description containing specified information; • The list of ingredients must meet labelling and naming of ingredients and compound ingredients that are specified in Standard 1.2.4 of the Code.
Identification, tracing systems, integrity and transfer	<ul style="list-style-type: none"> • Tracing systems must be in place so that eggs and egg products can be identified, traced and, if necessary, recalled.

⁵ This is not a complete list of requirements. A full list is documented in the *Export Control (Egg and Egg Products) Orders 2005*.

3.2 Import

Australian Quarantine and Inspection Service (AQIS)⁶ administers Australian quarantine and food safety conditions for the importation of biological products and food products. AQIS provides quarantine and food safety inspection services for the arrival into Australia of animals and plants and their products, including food.

All food that contains egg or egg products imported into Australia must first comply with quarantine requirements (animal and plant health requirements) under the *Quarantine Act 1908* and the amendments compiled in the *Quarantine Proclamation 1998*.

Currently, for quarantine reasons, eggs and egg products are only permitted under certain conditions and an Import Permit is required for all products that contain greater than 10% egg or if there are discernable pieces of egg in the product. Egg products containing less than 10% egg or egg products such as commercially prepared and packaged cakes, biscuits or bread and cake mixes do not require an Import Permit.

In cases where an Import Permit is required (i.e. the product contains greater than 10% egg or contains discernable egg pieces), the application to import the product is assessed on a case-by-case basis to determine the relevant import conditions. Current import conditions are listed in Table 3. If the egg product is not listed, the conditions have not yet been set and the product is not permitted to be imported. In general, import conditions for the egg products listed in Table 3 require certification that the required heat treatment has occurred.

Biosecurity Australia is conducting an Import Risk Analysis (IRA) of edible eggs and egg products. The IRA will assess the disease risks potentially associated with the importation of edible eggs and egg products from all countries. Import conditions may be amended and new conditions developed on completion of the IRA.

In addition to quarantine requirements, all food imported into Australia must also comply with the *Imported Food Control Act 1992 (IFC Act)*, which requires food to comply with the Food Standards Code. Imported food is categorised into two categories: Risk and Surveillance. FSANZ advise AQIS when an imported food is a Risk Category and these are referred to AQIS at the rates of 100%. Surveillance ('random') foods are inspected at a rate of 5% of consignments.

Under the *IFC Act*, imported egg products are currently referred to AQIS Imported Food Programme for inspection at the rate of 5% of consignments. They are visually inspected for compliance with the Food Standards Code (e.g. visual check and labelling) and all liquid (i.e. pulp) and powdered egg products are tested for *Salmonella*.

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http://www.aqis.gov.au/icon32/asp/ex_QueryResults.asp?Commodity=eggs&Area=All+Countries&EndUse=Human+consumption&QueryType=Search

Table 3: Import conditions for eggs and egg products⁷

Product	Specified treatment	Restrictions
Spray dried egg white	Spray dried and then hot boxed in its final packaging to a minimum core temperature of: <ul style="list-style-type: none"> – 70°C for 7 days; or – 62°C for 10 days 	Processing plant must be approved by AQIS.
Spray dried whole egg and egg yolk powder	Heated to a minimum core temperature of not less than 70°C for 120 minutes	USA, Denmark, Belgium, Canada and New Zealand only. Processing plant must be approved by AQIS or: USDA, EU, Agriculture Canada or New Zealand MAFF.
Pasteurised egg products - whole egg, egg yolk and egg white products	Products were processed as follows: <ul style="list-style-type: none"> – Liquid whole egg: 64°C for a min of 2.5 minutes – Liquid egg yolk: 60°C for a min of 3.5 minutes or 60.5°C for a min of 3 minutes – Egg white: 55°C for a min of 9.5 minutes 	New Zealand only
Whole boiled eggs	Heat processed so that a minimum core temperature of 80°C was reached or the product was cooked in water where the water maintained a temperature of at least 97°C for at least 17 minutes.	New Zealand only
Canned/retorted egg products	During the canning/retorting process, the product was heated to a minimum core temperature of 100°C, obtaining an F ₀ value of at least 2.8	
Egg pasta or noodles (up to 20% egg)	Cooked by a process sufficient to raise the core temperature of the noodles to at least one of the following temperatures: <ul style="list-style-type: none"> – 87°C for 2 minutes 30 seconds; or – 75°C for 15 minutes; or – 60°C for 5 hours; or – 60°C for 30 minutes followed by 54°C for 5 hours 	
Egg waffles	Baked at 250°C for at least 140 seconds	
Mooncakes with egg content	<ul style="list-style-type: none"> – Immersed in solution of 1 kg salt per 2 litres water for a period not less than 20 days; and – Yolks removed from eggs and oven cooked at 180°C for a period of not less than 15 minutes; and – Cooked yolks and other ingredients moulded to form the cakes which are to be baked in an oven at not less than 180°C for a period of not less than 30 minutes. 	

⁷ Import conditions can be found at www.aqis.gov.au/icon32/asp/ex_querycontent.asp.

4 Quality assurance schemes and Codes of Practice

4.1 Quality Assurance Schemes

Hen egg producers are represented at a national level by the Australian Egg Corporation Limited (AECL). The Corporation developed a National Egg Quality Assurance Program (NEQAP) to help commercial egg businesses develop a quality assurance program for their respective operations in the supply chain. The program addresses issues including food safety, biosecurity, animal welfare and egg labelling in order to set a minimum standard for the whole egg industry. The program is based on HACCP principles and covers on-farm practices relating to pullet rearing, egg production and egg grading/packing.

Businesses which implement the NEQAP Program are able to apply to become licensed as an 'Egg Corp Assured' business⁸. This is a voluntary licensing system offered by the AECL, whereby egg businesses must develop a quality assurance program that is consistent with the National Egg Quality Assurance Program. The programs must be audited by a registered third party auditor. Once licensed the business is then able to display the Egg Corp Assured logo on their packaging, labelling and marketing material. As of October 2006, there were 99 Egg Corp Assured licensed egg businesses.

Victoria also has the Hen Care⁹ Quality Assurance Program for Victorian Egg Producers, which is adapted from the national egg quality assurance program. The program addresses starter pullets and hen eggs from different production systems and focuses on good farming practices, including food safety. 10% of Victorian Producers are accredited with Hen Care whilst other producers may be accredited with the national Egg Corp Assured program or a scheme that is part of local council requirements or one which is required by their customers for example, Coles or Woolworths, who have their own quality assurance schemes.

4.2 AECL Codes of Practice

In addition to State and Territory legislation, the AECL has developed Codes of Practice as a voluntary means of assisting producers to meet the general provisions of the Food Act and/or Regulations in their State/Territory. The Codes of Practice relating to egg safety are:

- Shell Egg Production, Grading, Packing and Distribution, and
- Manufacture of Egg Products¹⁰.

These Codes provide guidance on the hygienic production, storage, packaging and distribution of shell eggs and egg products intended for human consumption and sets minimum standards of hygiene.

The Codes of Practice use have been developed using a HACCP-based food safety program approach to address food safety hazards and hygienic practices from feed and breeding flocks/hatcheries and receipt of raw materials through to the final consumer. Each Code of Practice is divided into production process steps. Hazards are identified at each step and

⁸ (AECL, 2006) <http://www.aecl.org/index.asp?pageid=391>

⁹ Supported by the Victorian Farmers Federation and FarmBis.

¹⁰ AECL (2005) <http://www.aecl.org/index.asp?pageid=486>. These documents are Codes originally developed in Victoria and adopted nationally through the AEIA. They are included in the NEQAP program.

suggestions are given for appropriate control measures for each. The hazards that are deemed to be critical to the production of safe eggs and egg products are identified as control or safety points.

4.3 International Code of Practice

The Codex Alimentarius Commission¹¹ Committee on Food Hygiene have developed a Code of Hygienic Practice for Eggs and Egg Products. This document covers the hygienic production and processing of eggs and egg products of domesticated birds, intended for human consumption and applies to all egg producers and processors, regardless of size. Australia has contributed to the development of the Codex Code of Practice to ensure it reflects safe practices in the Australian egg and egg products industries.

Australia is required to consider the Codex Code when developing national standards. Therefore, the requirements on egg production and processing in the Code of Hygienic Practice for Eggs and Egg Products have been considered during the development of the Primary Production and Processing Standard for Eggs and Egg Products.

4.4 Welfare and Biosecurity

FSANZ recognises that poultry welfare and biosecurity are important issues in regard to layers and the production of eggs. At Initial Assessment these issues were considered outside the scope of this Proposal which addresses food safety, although where the welfare and biosecurity of the bird is a contributing factor to food safety, this was taken into consideration within the risk management options. The egg industry has developed a Code of Practice for Biosecurity in the Egg Industry and the Primary Industries Standing Committee has endorsed a Code of Practice for the Welfare of Domestic Poultry. Although these Codes of Practice are endorsed by Government (state and federal), they are guidelines only to help in understanding the controls required to meet obligations under the respective laws that operate in Australia's States and Territories. Each State and Territory will need to implement any legislation which they consider supports key elements of the Codes.

4.4.1 Biosecurity

Biosecurity refers to measures taken to prevent or control the introduction and spread of infectious agents to a flock. The objectives of poultry production biosecurity are:

- To prevent the introduction of infectious disease agents to poultry;
- To prevent the spread of disease agents from an infected area to an uninfected area;
and
- To minimise the incidence and spread of microorganisms of public health significance

¹¹ The Codex Alimentarius is the international body whose purpose is protecting the health of consumers, ensuring fair trade practices in the food trade, and promoting coordination of all food standards work undertaken by international governmental and non-governmental organizations. The Codex Alimentarius commission develops food standards, guidelines and related texts such as codes of practice under the Joint FAO/WHO Food Standards Programme.

In response to previous outbreaks of exotic and endemic diseases and acknowledging the need for improved biosecurity programs, the Rural Industry Research and Development Corporation (RIRDC) developed the Code of Practice for Biosecurity in the Egg Industry¹² in 2001 at the request of the Australian Egg Industry Association. This code aims to assist egg farmers or enterprises to develop and adopt an appropriate Biosecurity Plan, based on Hazard analysis Critical Control Point (HACCP) principles, for their starter pullet and egg laying farms. This Code of Practice was used to develop the third party auditable Egg Corp Assured program.

The Code identifies the critical monitoring points to be addressed in a biosecurity program which are:

- entry of chicks, litter, equipment, vehicles, people and feed into started pullet farms;
- entry of litter, started pullets, adult fowls, equipment, vehicles, people and feed into egg production farms;
- the presence of wild birds and rodents in sheds or where hens and pullets range;
- water sanitation on farms using surface water for internal shed fogging or bird drinking water;
- disposal systems for dead birds, reject eggs and manure from the farm; and
- the presence of non-poultry bird species, other poultry and pigs on the farm.

In addition to this Code of Practice, a National Farm Biosecurity Manual on Poultry Production¹³ has recently been published (May, 2009) as a resolution of the Government-Industry Avian Influenza forum. The AECL contributed to the development of this manual and have undertaken to incorporate the requirements (i.e. minimum requirements for any poultry farm) of the manual into the Code of Practice for Biosecurity in the Egg Industry. This document outlines two levels of biosecurity: Level 1 – routine biosecurity procedures to be implemented and followed on a daily basis and Level 2 – high risk biosecurity procedures, to be implemented in the event of an outbreak of an emergency disease or serious endemic disease.

4.4.2 Poultry Welfare

Poultry welfare recognises the basic requirements for the wellbeing of poultry within a husbandry system appropriate to their physiological and behavioural needs. The basic needs of poultry are:

- readily accessible food and water to maintain health and vigour;
- freedom to move, stand, turn around, stretch, sit and lie down;
- visual contact with other members of the species;
- accommodation which provides protection from the weather and which neither harms nor causes distress; and
- prevention of disease, injury and lice, and their rapid treatment should they occur.

¹² <http://www.aecl.org/images/File/Producer%20Resources/Biosecurity%20Code%20of%20Practice.pdf>

¹³ http://www.daff.gov.au/animal-plant-health/pests-diseases-weeds/biosecurity/animal_biosecurity/bird-owners/poultry_biosecurity_manual

The Model Code of Practice for the Welfare of Animals – Domestic Poultry 4th Edition¹⁴ provides minimum requirements for poultry husbandry (for layer hens in cage, barn and free-range systems) and takes into consideration these basic needs listed above. In August 2000, ARMCANZ (Agriculture and Resource Management Council of Australia and New Zealand) made decisions on layer cage housing which were incorporated into this Code of Practice. In terms of layer welfare, this Code of Practice provides recommendations pertaining to housing, space allowances, equipment, lighting, ventilation, temperature and humidity, protection, food, water, inspections, health and distress, management practices, transport and sale of poultry.

The Department of Agriculture, Fisheries and Forestry has developed the Australian Animal Welfare Strategy to provide the national and international communities with an appreciation of animals' welfare requirements in Australia and to outline future directions for improvements in animal welfare. A national implementation plan has been developed to implement the strategy which includes the development of national standards for inclusion in State and Territory legislation and guidelines to support the standards. These will be based on the existing Codes of Practice. The development process for the new standards involves representatives from the egg industry, animal welfare and research organisations, relevant State and Territory government agencies, the Australian Government Department of Agriculture, Fisheries and Forestry and other stakeholders.SD5.

¹⁴ <http://www.aecl.org/Images/domestic%20poultry%20code.pdf>