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# 10 Food safety in egg production and processing

## Key points

- The majority of Australian jurisdictions do not separately regulate primary egg producers. Egg businesses further along the production chain which produce a substantially transformed product or which retail to the public are generally regulated as 'food businesses' under the relevant jurisdiction's food Act.
- The number of eggs produced or hens kept determines the coverage of food safety requirements in Tasmania and New Zealand, but not in other jurisdictions.
- Notification or licensing requirements are minimal for most egg businesses in Australia.
  - In New South Wales, South Australia and the Northern Territory, egg producers and processors can meet food safety requirements without incurring registration or licence fees.
  - Egg businesses in Western Australia and the ACT incur a fixed annual fee while those in New Zealand incur annual compliance assessment fees.
  - For egg businesses in Queensland and egg retailers in Victoria, there is both an annual fee and a cost associated with demonstrating compliance against a food safety plan (FSP).
- Only in New Zealand, Queensland and Tasmania are egg producers required to have FSPs — although egg businesses in Victoria that have a retail function are also required as food businesses to have an FSP.
  - Across these jurisdictions, demonstration of compliance with regulatory FSP requirements was estimated to be most costly to egg producers in Queensland. Although audits of New Zealand egg producers are potentially longer in duration than those in Queensland and Tasmania, total verification costs are capped in New Zealand and fewer audits per year are required.
- Queensland also has the most prescriptive requirements for egg businesses and is the only jurisdiction which requires eggs to be individually stamped (at ongoing running costs for businesses of between 0.4 cent and 2.7 cents per dozen eggs).
- Differences between jurisdictions in the interpretation and enforcement of particular requirements (such as what constitutes a 'crack' in an egg, or storage temperature and humidity requirements) may add to business compliance costs in some jurisdictions, but the Commission was not able to quantify these costs.

This chapter examines in detail the differences in primary production and processing regulation, and its implementation within jurisdictions, in the context of eggs and egg products.

The benchmarking in this chapter draws heavily on a comparison of regulatory differences between jurisdictions, as detailed in a consultancy report prepared for this study (Baldwins-FoodLegal 2009), and information supplied by jurisdictions in response to the Commission's surveys of regulators and local government. Where possible, the cost implications for business of these regulatory differences are then explored using jurisdictional fees and charges information and, where available, specific examples provided by study participants.

## 10.1 Scope of regulation of eggs and egg product safety

### Egg businesses

The regulation of eggs as a food for human consumption begins with the producing farms. There are just over 400 commercial egg producers in Australia and 150 in New Zealand (table 10.1). Within Australia, most producers are located in Victoria or New South Wales. Approximately 68 per cent of Australia's eggs are produced in cage layer farms, with the balance coming from barn and free-range farms (Australian Egg Corporation Limited 2009).

**Table 10.1 Commercial egg production by jurisdiction**

As at 30 June 2008 for Australia; as at February 2008 for NZ<sup>a</sup>

	<i>Egg businesses</i>	<i>Chickens ('000)</i>	<i>Eggs (million dozen)</i>
NSW	154	4 772	
Vic	105	5 011	
Qld	73	2 933	
SA	49	746	
WA	28	869	
Tas	8	209	
NT	0	0	
ACT	1	220	
Australia total	417	14 760	240
New Zealand	150	3 200	81

<sup>a</sup> Estimates are for the number of businesses rather than the number of licensed business premises.

Sources: ABS (*Agricultural Commodities, Australia* — 2007-08, Cat. No. 7121.0); Statistics NZ website; Australian Egg Corporation Limited (2009); Egg Producers Federation of New Zealand (2009).

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Between them, these egg producers supply over 300 million dozen eggs (largely to the domestic market) every year. 85 per cent of eggs are sold in shell form through grocery and retail chains and wholesale to the food service sector, with the balance processed into liquid, frozen and dried egg products for use in the food service and processed food sectors (DAFF 2009d).

### **Provisions for the safety of eggs and egg products**

Clean, whole shell eggs are rarely associated with food-borne illness in Australia and New Zealand. However, salmonella in cracked or dirty eggs and unpasteurised egg pulp is a key hazard associated with public health risk (FSANZ 2009c). Contamination mainly occurs at the time, or shortly after, the egg is laid. General provisions for the safety of eggs and egg products are provided in chapters 1 and 2 of the Australia New Zealand Food Standards Code (ANZFS Code). Specifically:

- *Standard 1.6.1 Microbial limits in food* sets microbial limits for pasteurised egg products in relation to salmonella (this standard applies in both Australia and New Zealand)
- *Standard 1.6.2 Processing requirements* specifies that liquid egg and egg products must not be sold or used in the manufacture of food unless they have been pasteurised (applies only in Australia)
- *Standard 2.2.2 Egg and egg products* prohibits the use and sale of cracked eggs, and also requires that all egg products undergo treatments that will allow compliance with microbial limits (this standard applies in both Australia and New Zealand).

While these standards are considered to adequately control the presence of salmonella in egg products, they do not specifically address if/how dirty or cracked eggs may be used in further food production.<sup>1</sup> Further, application of the existing standards to egg producers that also undertake some processing is unclear (FSANZ 2009c).

To address these deficiencies, a new through-chain standard for the *Primary Production and Processing of Eggs and Egg Products* in Australia is under development (and has been since April 2006). Development of the standard has taken into account existing food safety requirements in the egg industry, including existing regulations, industry codes of practice and guidelines, and food safety

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<sup>1</sup> FSANZ (2009c, p.9) estimate that under the current regulatory regime, the Australian egg and egg products industry could be incurring costs of \$6.75 million per year as a result of egg associated outbreaks. This estimate consists of around \$4.3 million in reputation damage, inefficiencies and wastage and \$2.4 million in food recalls.

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systems already in place. A draft of the proposed new standard was released for public comment in September 2009 (FSANZ 2009c). It is proposed that the new standard will apply to all Australian egg businesses, with the exception of (non-producer) businesses involved in retail sale or catering activities (as these are considered to already be adequately covered by other standards in the ANZFS Code).

In conjunction with development of the standard, the proposal includes an implementation strategy with a compliance plan that outlines what a business needs to do to comply with the standard and how jurisdictions should monitor compliance. Food Standards Australia New Zealand (FSANZ) estimate that implementation of the new standard will cost Australian industry around \$9 million in the first year and \$3.5 million per year thereafter (FSANZ 2009c). Parallel development of the proposed standard with its implementation strategy represents a new approach to the standard development process which is being trialled for eggs. At this stage, the new standard is expected by FSANZ to be finalised for introduction (in Australia only) in 2010, with a twelve month phase-in period (FSANZ 2009c).

Without benefit of the primary production and processing standard, the safety of eggs and egg products in Australia is currently regulated by industry and by some state and territory governments (table 10.2). The majority of Australian jurisdictions do not separately regulate primary egg producers. Egg businesses further along the production chain which produce a substantially transformed product or which retail to the public are generally regulated as ‘food businesses’ under the relevant jurisdiction’s food Act.

Only Tasmania has a specific Act for egg safety, although Queensland incorporates additional provisions for egg safety within its broader primary production legislation and has produced a guideline for commercial egg production. Coles reported that this Queensland guideline is ‘extremely prescriptive’ for its suppliers and is ‘outside the intent of modern “outcome based” Australian legislation and may, by its prescriptive and state-based nature, introduce greater complexity for national retailers’ (Coles 2008). New South Wales and South Australia have advised that they are also preparing specific legislation for the regulation of egg safety in their jurisdictions.

**Table 10.2 Regulations and regulators by jurisdiction — eggs**

2008-09

	<i>Documented requirements</i>	<i>Principal regulator</i>
NZ	Food Act 1981 Animal Products Act 1999 Animal Products Regulations 2000 Animal Products (Fees, Charges, and Levies) Regulations 2007	New Zealand Food Safety Authority (NZFSA)
NSW	Food Act 2003 Food Regulations 2004	NSW Food Authority (NSWFA) Local government
Vic	Food Act 1984	Vic Department of Health / Local government
Qld	Food Act 2006 Food Regulations 2006 Food Production (Safety) Act 2000 Food Production (Safety) Regulation 2002	Queensland Health <sup>a</sup> Safe Food Production Queensland (SFPQ)
SA	Food Act 2001 Food Regulation 2002	SA Department of Health / Local government
WA	Health Act 1911 Food Act 2008 <sup>b</sup> Health (Food Standards) (Administration) Regulations 1986 Health (Food Hygiene) Regulations 1993 Health (ANZ Food Standards Code Adoption) Regulations 2001	WA Department of Health / Local government
Tas	Food Act 2003 Food Regulations 2003 Egg Industry Act 2002 Egg Industry Regulations 2004 Manufacturing Controls for Raw Egg Products 2008	Department of Health & Human Services / Local government Department of Primary Industries, Parks, Water and Environment (Tas DPIPWE)
NT	Food Act 2004	NT Department of Health and Families / Local government
ACT	Food Act 2001 Food Regulations 2002	ACT Health

<sup>a</sup> Queensland Health regulate pasteurisation of eggs and egg retailers, except where these activities are conducted by an egg processor accredited with SFPQ. <sup>b</sup> The *Food Act 2008* (WA) did not come into effect until late October 2009.

The egg industry in Australia was one of the first agricultural industries to establish a food safety code of practice. Producers who are members of the Australian Egg Corporation Limited (AECL), which represents around 80 per cent of the industry, are expected to abide by the following voluntary codes of practice:

- *Code of Practice for the Manufacture of Egg Products* — provides guidance on the hygienic manufacture, storage, packaging and distribution of egg products

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intended for human consumption and sets the minimum standards of hygiene. The code aims to prevent contamination and deterioration in the quality of egg products and has been designed to cover all the different types of egg product manufacturing.

- *Code of Practice for Shell Egg, Production, Grading, Packing and Distribution* — aims to prevent contamination and deterioration in the quality of shell eggs. The code has been designed to cover different types of egg production systems from small free-range farms to intensive cage systems and recognises that hygiene control may be more difficult in ‘non-cage’ egg production systems.

These codes are viewed by industry as setting higher standards than the minimum requirements of state and territory legislation. In addition to the codes, the AECL has developed a national egg quality assurance program — Egg Corp Assured — which aims to help commercial egg producers develop a quality assurance program for their business and be recognised for doing so through audit of the program, promotion by AECL and use of the Egg Corp Assured trademark. The major supermarkets also impose quality requirements on their egg suppliers.

In New Zealand, the egg industry is regulated under the *Animal Products Act 1999* and its associated regulations and notices. In addition, the New Zealand Food Safety Authority (NZFSA) and the Egg Producers Federation have produced a *Generic Code of Practice for Egg Production* to guide producers in approaches that can be used to comply with legislated requirements.

## **10.2 Comparison of regulatory requirements across jurisdictions**

Differences in the regulatory requirements imposed on business and in the regulatory instruments and powers placed on regulators can give rise to a range of areas in which the compliance actions of businesses and associated costs of meeting food safety requirements differ between jurisdictions. Specifically, differences can emerge between jurisdictions in business licensing requirements and the need for FSPs; stipulations on business inputs or processes for hygiene purposes; and product labelling requirements.

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## Registration requirements and the need for a food safety plan

There are broad fundamental differences between the jurisdictions in requirements for egg businesses to be registered (or licensed or accredited)<sup>2</sup> or to have an FSP (table 10.3).

- In New South Wales, egg businesses do not need to be registered but must notify the NSWFA of their activities. In 2008-09, there were 28 egg producers which gave notification to the NSWFA (although the Authority estimates that the number of egg farm and processing premises in operation is substantially higher than this — Productivity Commission survey of food safety regulators 2009, unpublished). The NSWFA has been working for several years with egg industry stakeholders to develop an *Egg Food Safety Scheme* regulation. If adopted, the regulation would require certain egg businesses (those producing more than 20 dozen eggs per week) to hold a NSWFA licence and higher risk businesses (such as those that use unpasteurised egg pulp) to implement a range of food safety risk management controls.
- In Victoria, there are no mandatory registration requirements for producers that do not sell to the public. However, egg processors and retailers are required to be registered as a food business with their local council. As a food business, processors and retailers of eggs need to submit an FSP (a simple template is available) with every registration and re-registration.
- Of the Australian jurisdictions, Queensland has the most prescriptive requirements for egg producers. The *Egg Scheme* under the *Food Production (Safety) Regulation 2002* applies to on-farm practices of all producers, regardless of flock size or production quantities. The scheme provides for accreditation, FSPs and prescriptive requirements for egg production, grading, packing, traceability, processing (such as heat treatment), storage and transport. In 2008-09, 66 of Queensland's egg businesses had approved FSPs (most of these were producers). The Egg Scheme also recognises 'preferred supplier arrangements', whereby approved egg producers can supply eggs exclusively to a particular egg processor. Producers supplying eggs under a preferred supplier arrangement cannot also sell eggs to other businesses or to the public, and they are exempt from accreditation fees under Queensland's Egg Scheme. Food businesses manufacturing or retailing egg products are administered by Queensland Health, and are licensed by local government under the *Food Act 2006* (Qld), but are not required to have an FSP.

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<sup>2</sup> For simplicity, the terms 'licence', 'registration' and 'accreditation' are used synonymously in the remainder of this chapter, although where relevant, the appropriate terminology for a given jurisdiction is used when referring only to that jurisdiction.

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- Egg businesses in South Australia are not required to be licensed, but must notify their local council of their existence. Those which retail eggs are regulated as a food business under South Australia's *Food Act 2001*.
  - In Western Australia, egg production is an 'offensive trade' under the *Health Act 1911*(WA), so egg producers are required to register their premises with their local council within one week of establishment and then again every July. Apart from this broad requirement, egg businesses are currently not regulated for food safety purposes in Western Australia and there are no specific requirements for eggs or egg products under the *Food Act 2008* (WA) (FSANZ 2009c).
  - Legislation in Tasmania does not impose licensing requirements but does require a quality assurance program ('Egg Production Program') to be approved and audited for producers with more than 20 hens (does not apply to other birds) and for off-farm grading. For approval, an Egg Production Program must address: (a) food safety; (b) animal welfare; (c) biosecurity; (d) environmental impact; and (e) labelling standards. In 2008-09, there were 13 egg producers in Tasmania with Egg Production Programs approved by the Tasmanian DPIW (Tasmanian Audit Office 2008). Activities such as off-farm pulping, egg product processing, transport, distribution and retail sales are covered by the *Food Act 2003* (Tas) and are regulated by local councils. In addition, all food businesses which make raw egg products (such as mayonnaise, aioli or béarnaise sauce) are required to comply, as a condition of business registration, with the *Manufacturing Controls for Raw Egg Products 2008*.
  - The only egg producers in the Northern Territory and the ACT are small operations (non-commercial in the Northern Territory) which also sell to the public and so are regulated under the Food Acts of the territories. (The ACT operator, and other producers selling in the ACT, are also required to comply with the ACT's specific legislation on egg labelling — *Eggs (Labelling and Sale) Act 2001*.)
  - In New Zealand, all large producers (those with more than 100 female birds) and those who supply to others for resale are required to register a risk management program (RMP) before trading any eggs. There is some scope for a secondary processor of eggs (for example, those that pulp, pasteurise or otherwise process egg products) to elect to be regulated in New Zealand with an approved FSP under the *Food Act 1981* (NZ) or under the *Food Hygiene Regulations 1974*, rather than with a RMP under the *Animal Products Act*. However, those who require official assurances for export, must have a RMP.

The new standard for *Primary Production and Processing of Eggs and Egg Products* is proposed to require activities which undertake pasteurisation (or equivalent treatment) of egg products and post-pasteurisation (or equivalent

treatment) storage and transport, to implement an FSP. All other egg businesses covered by the standard will be required to have a ‘food safety management statement’.

**Table 10.3 Differences in registration requirements — eggs**

	NZ	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
Registration or notification required <sup>a</sup>									
Producer with no retail function	✓	✓		✓	✓	✓	✓		
Producer with retail function	✓	✓	✓	✓	✓	✓	✓	✓	✓
Depends on business size	✓						✓		
Registration conditions									
FSP or RMP required	✓		✓	✓			✓		
FSP or RMP to be audited	✓			✓					
Planning permission required									✓

<sup>a</sup> Notification (rather than registration) is required of producers in New South Wales, South Australia and Western Australia.

Sources: Baldwins-FoodLegal (2009); regulator websites.

In terms of the content of an FSP/RMP, legislation in Victoria and Queensland include a number of specific requirements (such as the need for an FSP to systematically identify potential hazards and provide for monitoring, control and regular review). Tasmania does not have legislative requirements for the content of an FSP, but the regulator advises producers that their required egg production programs may be assessed against a number of codes of practice (including those of the AECL) and standards for egg labelling. New Zealand has established specific guidelines for the content of a RMP, which are similar to those required by Victoria and Queensland for an FSP. Specifically, a RMP is designed to identify, control, manage and eliminate or minimise hazards and other risk factors so that the resulting egg product is fit for the intended purpose, under Part 2 of the *Animal Products Act 1999* (NZ).

In a Regulatory Impact Statement for its proposed *Egg Food Safety Scheme* (NSWFA 2005), the NSWFA estimated that the cost to egg businesses to establish an FSP in New South Wales would be in the order of \$2500 (consisting of \$2000 for the time of one employee for a two week period plus \$500 in external assistance). In addition, it was estimated that an average of \$300 to \$500 in capital improvements could be necessary for businesses to meet the requirements of FSPs. Ongoing costs associated with the management of an FSP (record keeping and program review requirements by one employee over a four week period) were estimated at \$4000 per year.<sup>3</sup> For those jurisdictions which currently require an FSP

<sup>3</sup> All estimates are in 2005 dollars.

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or equivalent (Queensland and Tasmania), these costs are already a part of ongoing regulatory compliance costs for egg producers.

## **Compliance monitoring**

Each of the jurisdictions that requires an FSP/RMP also has provisions for the audit of these plans:

- Victoria's FSPs can be audited by an approved auditor or, if the business has elected to use a template FSP, compliance can be verified by an authorised officer during an annual inspection.
- Egg producers in Tasmania are required to be audited within three months after the approval of their egg production program. Producers may use DPIPW to perform audits or approved third party auditors. In the latter case, the business has 21 days to deliver a copy of the audit report and audit certificate to DPIPW. The initial audit by DPIPW required for approval of the egg production plan is free. Subsequent compliance audits are at the expense of the producer, generally take around 2 hours and are annual (Productivity Commission survey of food safety regulators 2009, unpublished).

In reviewing the food safety practices of egg producers in Tasmania, the Tasmanian Audit Office (2008) found that:

... egg production plans for approved producers are in place and annual inspection programs are maintained. Our testing confirmed that food safety audits were comprehensive, thorough and up-to-date.

In reviewing council inspection processes for the retail of eggs, the Audit Office reported inconsistencies in risk ratings, use of checklists and feedback to business operators.

- In Queensland, an audit is required for accreditation. For low risk egg businesses (egg producers and transporters), SFPQ must conduct a compliance audit within six months of accreditation and within one year of first compliance. Thereafter, audits are annual if the business is found to be compliant, or six monthly otherwise. For high risk egg businesses (those that process or pasteurise eggs or egg products), SFPQ must conduct a compliance audit within three months of accreditation and within six months of first compliance. Thereafter, audits are six monthly if the business is found to be compliant, or three monthly otherwise. There is provision for third party auditing and also for businesses to elect to have multiple inspections as an alternative to audits. On average, audits of egg businesses for food safety purposes take around 1.5 hours (Productivity Commission survey of food safety regulators 2009, unpublished).

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- New Zealand – NZFSA’s verification agency audits RMPs of egg businesses to verify compliance. Egg businesses which need a RMP can use the approved Egg Risk Management Program template (available online), and if they do so, will be exempt from the need to have an on-site assessment as part of the evaluation of the RMP, provided certain conditions are met. Audits occur annually and generally take up to 2 hours to complete for a small producer (fewer than 100 hens), 3 to 4.5 hours for a medium producer (100 to 25 000 hens) and up to 6 hours for a large producer (Productivity Commission survey of food safety regulators 2009, unpublished; NZFSA 2009f).

In the other jurisdictions (which do not require egg businesses to have an FSP), inspections under the jurisdiction’s food Act may nevertheless occur. The frequency of such inspections tends to depend on the priorities and resources of the relevant authority.

### **Fees and charges**

With the wide variation in licensing requirements, there is considerable disparity in licensing and registration fees incurred by egg businesses (table 10.4). In New South Wales, South Australia and the Northern Territory, businesses can generally meet licensing or notification requirements without incurring a fee. Egg businesses in Tasmania incur an initial application fee but no ongoing licence fees. Those in Western Australia and the ACT incur an annual fee for registration. For those egg businesses in New Zealand which have a registered RMP, the only recurring regulatory cost for food safety purposes is for verification of the RMP. Egg businesses in Queensland, and those which retail eggs in Victoria, are required to pay an annual fee in addition to incurring a cost to have their compliance against their FSP/RMP verified.

Across all the jurisdictions, registration as an egg processor in Queensland represents the greatest annual regulatory expense, with a flat fee of \$1167 for accreditation, plus a further \$675, on average, for assessment/auditing of an FSP by SFPQ (based on the minimum of two audits of 1.5 hours each per year at \$225 per hour). These charges are well above annual compliance costs to egg producers in other jurisdictions. The total charge payable for verification of the RMP of an egg producer in New Zealand was limited to A\$684 (NZ\$841.66) in 2008-09 for a large producer, and less for smaller producers (NZFSA 2009f). Producers in Tasmania potentially incur around \$450 per year for auditing of performance against an egg production program.

**Table 10.4 Initial and ongoing fees to maintain registration — eggs**

Australian dollars, 2008-09

	<i>Category</i>	<i>Initial fee</i>	<i>Annual fees</i>
NZ <sup>a</sup>	Application for registration	\$112	
	Assessment fee (fee varies with employment status of assessor)		\$112 to \$122/hr plus \$28 to \$30/15 min in final part-hour
	Maximum charges for assessment (excl. GST)		
	Up to 100 hens (max 2 hours)		\$300
	100 to 3000 hens (max 3 hours)		\$413
	3001 to 25000 hens (max 4.5 hours)		\$548
	Over 25 000 hens (max 6 hours)		\$684
NSW	Notification		
	– online	No charge	na
	– paper submission	\$55	na
Vic	Producers with no retail role – no licensing requirements		Local council annual registration & audit fees
	Producers who also retail (registration with local council)		
Qld	Application	\$116.60	
	Accreditation		
	Egg producer (for those not in a preferred supplier arrangement)		\$291.65
	Egg processor		\$1 166.75
	Egg transporter		\$210.00
	Assessment of FSP, inspections and/or audit costs for application		\$225 per hour
	Egg retailer only		Local council fees
SA	Notification to local council		Free
	Inspection fee: small business		Max \$80
	other business		Max \$200
WA	Registration with local council as an offensive trade		\$262
Tas	Producer with <20 hens – no licensing requirements	na	na
	Producer with >20 hens		
	– application to approve an egg production program	\$448.00	
	– application to adopt an already approved egg production program	\$128.00	
	– application for exemption from Egg Industry Act	\$64.00	
	Audit of egg production program		\$224 per hour
	Off-farm egg processors, transporters, storage facilities, distributors and retailers		Local council fees
NT	Registration as a food business if a producer with retail role — online registration	No charge	No charge
ACT	Registration of a food business (based on FSANZ priority classifications of food businesses)	\$50 to \$150	\$50 to \$150

na not applicable. <sup>a</sup> New Zealand fees are converted to Australian dollars at an average exchange rate for 2008-09 of 1.23.

Sources: Baldwins-FoodLegal (2009); regulator websites; Productivity Commission survey of food safety regulators (2009, unpublished).

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## Requirements on business inputs and operation

### *Requirements on egg premises, equipment and staff*

In practice, all egg businesses will need equipment that allows them to comply with processing requirements such as pasteurisation and microbial testing. Some jurisdictions also have requirements on business inputs and processes that are additional to the ANZFS Code (table 10.5):

- In Victoria, the *Food Act 1984 (Vic)* requires that a food safety supervisor be nominated with the skills and authority to ensure that all staff have sufficient skills and knowledge to provide safe food. The Victorian Government (pers. comm. 2009) has advised the Commission that these requirements will be changed as part of the 2009-10 amendments to Victoria's Food Act (see chapter 6)
- Egg businesses in Queensland must ensure that the premises are designed to provide adequate space, light and ventilation and the premises and equipment can be effectively sanitised to ensure a high level of hygiene. Vehicles used to transport eggs and egg products must be maintained, cleaned and temperature controlled to prevent/reduce pathogenic growth. An FSP for a Queensland egg business must contain certain details on staff training and the accreditation holder has responsibilities for ensuring appropriate skills and knowledge of all persons involved in food processing
- In Western Australia, the *Heath (Food Hygiene) Regulations 1993* set out requirements for the design and construction of food premises and vehicles which could (although not explicitly mentioned) apply to egg businesses<sup>4</sup>
- In Tasmania, for producers with more than 20 hens, an egg production program may impose processing and training requirements which would need to be complied with as a condition for approval of the plan
- New Zealand's *Animal Products Regulations 2000* require that premises and equipment be designed, constructed, located and operated to minimise risks to the product and ensure effective sanitation. Eggs that are to be sold in shell must be visibly clean, have no evidence of embryo development, putrefaction, no significant blood clots, not have been incubated and be handled and stored so as to minimise condensation on the egg surface. Eggs that are not pasteurised (or equivalent) must be candled prior to retail such that the interior and exterior of each egg is examined. For those businesses with a RMP, all persons whose

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<sup>4</sup> These regulations were repealed with the commencement of the *Food Act 2008 (WA)* in October 2009.

presence or actions may contaminate the product are required to wear appropriate clothing and behave in a manner that minimises contamination.

**Table 10.5 Requirements on business operation — eggs<sup>a</sup>**  
2008-09

	NZ	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
Compliance with standards, manuals or procedures (other than the ANZFS Code)	✓					✓			
Requirements on premises									
Initial design	✓			✓		✓			
Maintenance and cleanliness	✓			✓		✓			
Requirements on equipment and processes									
Suitability	✓			✓					
Maintenance and cleanliness	✓			✓		✓			
Other jurisdiction specific requirements									
Transport provisions	✓			✓		✓			
Record keeping provisions	✓			✓			✓		
Training and personnel provisions	✓			✓			✓		

<sup>a</sup> These are jurisdiction requirements beyond the basic requirement of the Food Acts to comply with the ANZFS Code.

Source: Baldwins-FoodLegal (2009).

### *Record keeping requirements*

Only four of the nine jurisdictions under study have record keeping requirements specific to their jurisdiction. In Victoria, Queensland and New Zealand, these requirements are broad and applicable to FSPs/RMPs generally, rather than specific to egg businesses. In Queensland for example, records must provide explanation of the holder's activities and transactions and be kept so as to enable them to be properly and conveniently audited. In Tasmania, while there are no specific legislative requirements, documents may be seized under the *Egg Industry Act 2002* (Tas). Additional recordkeeping requirements may also be imposed through an egg production program.

### *Egg labelling and stamping*

Most labelling requirements for eggs relate more to accuracy of product description and facilitation of consumer choice than to food safety, but product labelling is nevertheless included within the scope of food safety regulation, mainly due to the need for product traceability. Chapter 1 of the ANZFS Code requires traceability of

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eggs back to the manufacturer or supplier by printing name of food, lot/batch identification, and name and address of the supplier on the carton.

Unique among the jurisdictions, Queensland has required (since 2005) that either all eggs be stamped with a unique producer identification or alternatively, that cartons be sealed and the unique producer identification be on the carton. SFPQ report that egg stamping is ‘the final step in Queensland’s quality assurance and traceability program for eggs’ (SFPQ 2008a). The individual stamping of every egg is considered to overcome a number of concerns regarding the traceability of the product and expedition of food-borne illness investigations. Individual egg stamping is supported by the Queensland Egg Farmers Association as the most effective way to implement through-chain traceability (Food Production (Safety) Amendment Regulation, no.320, 2004). However, stamping also has a number of cost implications for egg businesses (box 10.1). Apart from the initial capital costs of equipment and ongoing costs of ink and other resources, producers may not combine into a pack, eggs from different egg production farms. To date, these are costs that egg producers in other jurisdictions have not had to incur (although some may have chosen to individually stamp their eggs).

In a review of food safety for eggs in Tasmania, the Tasmanian Audit Office (2008) recommended the introduction of egg stamping in that state, to facilitate tracing of the final product back to producers. They further reported that at least two egg producers in Tasmania had already adopted egg stamping. In development of its (yet to be implemented) Egg Food Safety Scheme, New South Wales did not propose extending egg labelling beyond the lot identification requirements of the ANZFS Code. The proposed new standard for *Primary Production and Processing of Eggs and Egg Products* in Australia includes a requirement that each individual egg be marked with the producer’s unique identification (FSANZ 2009c). Furthermore, an egg producer who supplies egg pulp must mark each container with the producer’s unique identification.

## Box 10.1 Egg stamping costs

There are around 56 000 million dozen eggs produced in Queensland each year and a further 4 million dozen brought into Queensland from New South Wales. Around 87 per cent of these eggs come from the largest producers, 8.7 per cent from medium producers and 4.3 per cent from small farms.

SFPQ undertook an analysis of egg stamping costs in Queensland for its producers in 2007. At that time, an estimated 95 per cent of Queensland egg production was individually stamped, and the remainder was sold in sealed cartons/containers that were required to be stamped. The Commission has updated the SFPQ estimates to reflect current prices.

The cost of individually stamping every egg with a unique producer identification is estimated to be in the order of 0.4 cents to 2.7 cents per dozen eggs for those businesses using a stamping machine, and around 1 cent per dozen eggs for businesses that hand stamp their product. Costs were estimated to be higher in the initial year (due to purchase and installation of equipment) and also higher for businesses with a lower throughput that nevertheless chose to undertake the stamping via a machine rather than by hand stamping.

Across all egg producers, the ongoing costs of individual egg stamping in Queensland are estimated to be \$350 000 per year, or \$640 to \$16 000 per producer (depending on production levels and stamping technique).

### Estimated costs by business size<sup>a</sup>

	<i>Initial year</i>	<i>Subsequent years</i>
Large farm (~4 million dozen eggs pa with stamping machine)		
Equipment cost & installation	\$37 300	
Running costs	\$16 000	\$16 000
Cost per dozen eggs	1.33c	0.40c
Medium farm (~300,000 dozen eggs pa with stamping machine)		
Equipment cost & installation	\$19 200-\$21 300	
Running costs	\$8 000	\$8 000
Cost per dozen eggs	9.8c	2.7c
Small farm (~60,000 dozen eggs pa with hand stamping)		
Equipment cost & installation	\$640	
Running costs	\$640	\$640
Cost per dozen eggs	2.1c	1.1c

<sup>a</sup> Based on equipment and running costs estimated by SFPQ in March 2007 and updated to 2008-09 prices using consumer price inflation of 6.6 per cent over for the two years from 2006-07 to 2008-09. The cost of capital equipment may have declined marginally in recent years with a greater uptake of egg stamping, but the Commission has not included alternative capital equipment costs at this stage.

Sources: SFPQ (2007); FSANZ (2009c); ABS (2009).

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### *Other requirements arising from differences in interpretation*

The Commission was advised during this study of other potential differences between jurisdictions in the interpretation of food safety standards for eggs (with respect to both the ANZFS Code and other recommendations of ‘best practice’). For example:

- Differences in interpretation of a ‘cracked’ egg — in developing their proposed Egg Food Safety Scheme, New South Wales distinguished, in its guidelines for the suitable use of eggs, between a crack in the shell of an egg and a break in the inner membrane
- Differences in the interpretation of storage requirements, particularly in regard to shelf life, temperature, humidity. For example, The Victorian Farmers Federation (VFF 2007) reported that ‘... regulations in Queensland stipulate that it is necessary to keep eggs at a different level of humidity from what is required in Victoria.’ With regard to storage temperatures, Victoria recommend to their retailers that eggs are delivered at or below 20°C (*Victorian Shell Egg Code for the Production, Grading, Packing and Distribution of Eggs*); Queensland recommend storing and transporting eggs between 12°C and 20°C and a relative humidity of 70 to 80 per cent (SFPQ 2009a); and South Australia recommend that eggs be cooled to 15°C immediately after collection (PIRSA 2009)
- The major supermarkets require suppliers to comply with the supermarkets’ risk management strategy, as embodied in their FSPs. The risks to public health and safety for a large supplier of food directly to consumers are generally considered to be greater than the risks associated with smaller businesses (with fewer people handling the product) and businesses at earlier stages in the production chain (ANZFA 2001). For example, the VFF (2007) report that at the point of delivery to a supermarket (in any Australian jurisdiction), the temperature of eggs is checked to ensure compliance with both regulatory and industry requirements (supermarkets require eggs to be at 14°C on delivery, considerably lower than most regulatory requirements). The eggs are then stored at ambient temperature in the supermarket storeroom and then on the shelf. The VFF report that ‘it is not unknown for the eggs to be stored in the storeroom under a skylight, which raises the temperature of the eggs’.

The development of a national standard for safety in the production and processing of eggs should go some way toward reducing these types of differences in interpretation between jurisdictions.