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Report to Department of Agriculture, Water and the Environment

Australian Animal Welfare Standards and Guidelines for Poultry

Decision Regulation Impact Statement



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Contents

Executive summary	i
1 Introduction	1
1.1 Purpose	1
1.2 Context	2
2 The nature of the problem	5
2.1 Overview of the Australian Poultry Industry	5
2.2 Identifying the problem	7
3 The case for government intervention	18
3.1 Objective of government action	18
4 Policy options considered	19
4.1 Policy options	19
5 Regulation impact analysis	26
5.1 Assessing the options against the problems	26
5.2 Quantifying impacts on animals of Option 3 and 4	31
5.3 Quantifying the costs	32
5.4 Other market impacts	37
5.5 Unintended consequences	39
5.6 Summary of impacts	41
6 Implementation and review	42
6.1 Implementation	42
6.2 Evaluation and review strategy	42
7 Conclusion	44
Appendices	46
A Stakeholder responses to the Consultation RIS	47
A.1 Consultation RIS	47
A.1 Phasing out conventional cages	49
A.2 Beak trimming and other painful practices	51
A.3 Stocking densities	52
A.4 Induced moulting and limited access to food and water	53
A.5 Lighting	54
A.6 Rapid growth of meat birds	55
A.7 Water for ducks	55

Contents

B	Standards development timeline	57
C	Potential costs of proposed standards	59
C.1	Costing framework	59
C.2	A summary of potential costs	60
C.3	A3 — Risk management	64
C.4	A4 — Facilities and equipment	64
C.5	A5 — Management of outdoor systems	65
C.6	A6 — Lighting	66
C.7	A7 — Temperature and ventilation	67
C.8	A9 — Handling and husbandry	68
C.9	B1 — Laying chickens	68
C.10	B3 — Meat and laying chicken breeders	70
C.11	B4 — Ducks	72
C.12	B7 — Guinea fowl	72
C.13	B10 — Pheasants	73
C.14	B13 — Turkeys	73
D	Draft Australian Animal Welfare Standards and Guidelines for Poultry	74
	Glossary	79
	Background	84
	Introduction	85
	Part A General standards and guidelines for all species of poultry	90
	A1 Responsibilities	90
	A2 Feed and water	91
	A3 Risk management of extreme weather, natural disasters, disease, injury and predation	92
	A4 Facilities and equipment	95
	A5 Management of outdoor systems	98
	A6 Lighting	99
	A7 Temperature and ventilation	100
	A8 Litter management	101
	A9 Handling and husbandry	101
	A10 Humane killing	104
	Part B Commercial production standards and guidelines for poultry	106
	B1 Laying chickens	106
	B2 Meat chickens	109
	B3 Meat and laying chicken breeders	111
	B4 Ducks	113
	B5 Emus	114
	B6 Geese	117
	B7 Guinea fowl	118
	B8 Ostriches	119
	B9 Partridge	120
	B10 Pheasants	121
	B11 Pigeons	121
	B12 Quail	123
	B13 Turkeys	124

Contents

Figures

Figure 1.1	Timeline of development of the proposed Standards	3
Figure 2.1	Impacts of animal welfare uncertainty on the community	13
Figure 2.2	Examples of product labelling of animal welfare conditions	14
Figure 5.1	Breakdown of cost components of the mandatory standards under options 3 and 4	34
Figure 5.2	An indicative layer cage infrastructure by year under Option 3	35
Figure 5.3	Estimated cumulative net impact on caged layer production costs associated with SB1.13 standards (in 2021 dollars)	36
Figure 5.4	Breakdown of the costs of the mandatory standards under Option 3 and 4 by industry	36
Figure 6.1	Implementation process of the preferred option	42

Tables

Table 2.1	Market share of major players in the Australian egg industry	5
Table 2.2	Market share of major players in the Australian chicken meat industry	6
Table 2.3	Market information on non-chicken poultry production	6
Table 2.4	Risks to animal welfare	9
Table 2.5	Examples of misaligned regulation	17
Table 5.1	Net industry costs relative to baseline	34
Table 5.2	Impacts of options	41

Boxes

Box 2.1	Examples of uncertain language across regulation	16
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Executive summary

The purpose of this Decision Regulation Impact Statement (Decision RIS) is to examine the current regulatory issues that exist in Australia's poultry industry, the need for government intervention, and to evaluate policy options for managing and minimising risks to the welfare of poultry reared or bred in captivity.

Australia has three existing voluntary model codes of practices (MCOPs) for the welfare of domestic poultry including emus, and ostriches: *The Model Code of Practice for the Welfare of Animals – Domestic Poultry 4th edition (2002)*, *Model Code of Practice for the Welfare of Animals: Husbandry of Captive-Bred Emus 2nd edition (2006)* and *Model Code of Practice for the Welfare of Animals: Farming of Ostriches (2003)*. The MCOPs provide recommendations on the minimum acceptable outcomes for poultry welfare. However, the MCOPs are well over 15 years old and are not mandatory. This means that there is no regulation or obligation by law for managing and minimising risks to the welfare of poultry reared or bred in captivity outside of basic animal cruelty legislation. As a result, the MCOPs have fallen behind community and trading partner expectations and do not reflect the advancements in animal welfare science over the past several decades. To address these deficiencies, the development of the proposed *Australian Animal Welfare Standards and Guidelines for Poultry* has been an important initiative of all governments and poultry industries to guide the development of new, nationally consistent policies to enhance animal welfare arrangements in all Australian states and territories and ensure the sustainability of the Australian poultry industry.

This Decision RIS considers the impacts of four key policy options:

- **Option 1:** maintain the existing Model Code of Practice for the Welfare of Animals: Domestic Poultry 4th Edition (MCOP).
- **Option 2:** introduce the proposed Standards and Guidelines as voluntary.
- **Option 3:** introduce the proposed Standards as compulsory and Guidelines as a voluntary set of guidelines.
- **Option 4:** introduce the proposed Standards as compulsory and Guidelines as a voluntary set of guidelines, with an extended phase out period of conventional cages until 2046.

In reaching a recommendation, both qualitative and quantitative assessments were undertaken including:

- an examination of the context and issues in the sector;
- the careful consideration of stakeholder feedback to the Consultation Regulation Impact Statement (CRIS) process from poultry producers, peak bodies, consumers, academics, legal experts and government agencies;
- an assessment of the degree to which each of the options address the problems, including risks to animal welfare, relative to the existing MCOP; and
- the analysis of the costs to industry from the implementation mandatory standards.

The analysis deliberately does not monetise the benefits of reduced animal welfare risks, which is a difficult and potentially misleading task. Instead, each option is assessed as the degree to which they address the risks relative to the existing MCOPs.

Option 3 is the recommended option as it most substantially addresses the policy problems. In the absence of quantifiable evidence relating to the economic benefits of Option 3, these benefits will have to meet or exceed the costs of implementation, which are expected to be \$261 million over the next 10 years. An example of this means at a consumer level, it is expected to cost at most \$1.51 per egg consumer per year. It will ultimately be a decision for state agriculture ministers to determine whether these economic benefits are likely to be realised through the adoption of Option 3.

Introduction

1

1.1 Purpose

The purpose of this Decision RIS is to evaluate policy options for managing and minimising risks to the welfare of poultry reared or bred in captivity, which includes layer and meat chickens, ducks, emus, turkeys, geese, pheasants, ostriches, guinea fowl, partridge, quail and pigeons.

This Decision RIS considers the impacts and implementation of four key policy options:

- **Option 1:** maintain the existing Model Code of Practice for the Welfare of Animals: Domestic Poultry 4th Edition (MCOP).
- **Option 2:** introduce the proposed Standards and Guidelines as voluntary.
- **Option 3:** introduce the proposed Standards as compulsory and Guidelines as a voluntary set of guidelines.
- **Option 4:** introduce the proposed Standards as compulsory and Guidelines as a voluntary set of guidelines, with an extended phase out period allowing the use of conventional cages until 2046.

These options represent a refinement to the options identified in the CRIS. They also represent the decisions of the Independent Poultry Welfare Panel's (the Independent Panel) deliberations following public feedback submitted by stakeholders on the policy options provided in the CRIS (see Appendix A).

This Decision RIS has been developed in accordance with the Commonwealth Government's *Principles for Best Practice Regulation*. Therefore, the structure of this report is as follows:

- Chapter 2 describes the nature of the problem.
- Chapter 3 sets out the case for Government intervention.
- Chapter 4 outlines the proposed options to address the identified problem.
- Chapter 5 assesses the impacts of the proposed options.
- Chapter 6 discusses the implementation and review of the proposed regulation.
- Chapter 7 sets out the conclusions of the analysis.

1.2 Context

The management of livestock welfare in Australia has traditionally been supported by a series of Model Codes of Practice (MCOPs) developed in the 1980s. However, due to deficiencies within the MCOPs and their variable uptake into state and territory regulation, this gave rise to the following problems with existing arrangements:

- **Problem 1:** risks to the welfare of poultry due to deficiencies in the existing MCOPs and jurisdictional codes of practice for the welfare of poultry.
- **Problem 2:** uncertainty for the consumer, the community and the supply chain about the animal welfare credentials of poultry products.
- **Problem 3:** uncertainty for industry due to a lack of transparent and verifiable standards.
- **Problem 4:** excess regulatory burden for industry arising from a lack of national consistency.

In response to the identified issues, it was recommended that the MCOPs be converted into the *Australian Animal Welfare Standards and Guidelines* with Animal Health Australia (AHA) responsible for the development of these national standards and guidelines for livestock under the former Australian Animal Welfare Strategy (AAWS). These Standards and Guidelines have been prepared as part of a program for developing national welfare standards and guidelines for various industry sectors and they aim to harmonise and streamline livestock welfare legislation in Australia.

The Standards are intended to provide direction for all people responsible for the care and management of poultry. They provide the basis for developing and implementing consistent legislation and enforcement across Australia and are underpinned by relevant scientific literature, recommended industry practice and community expectations.

A suite of standards and guidelines have subsequently been developed for particular animal-related activities including cattle, sheep, and land transport, with draft Standards for poultry still under development. If endorsed by agriculture ministers, it is intended that an Option for the draft Standards for poultry will replace the existing MCOPs and be adopted into relevant state and territory legislation.

1.2.1 Development process of the draft Standards for Poultry

The development of Australian animal welfare standards and guidelines have traditionally been undertaken by a drafting group under the direction of the Animal Welfare Task Group (AWTG) and guided by a stakeholder advisory group (SAG) that includes appropriate representation from industry, government, and non-government organisations.

However, for the Standards that relate to poultry, an independent panel was appointed to oversee and finalise the Standards under the guidance of the Agriculture Senior Officials Committee (AGSOC). The panel began work in April 2020 to resolve key issues and consult with state and territory departments, industry representatives and animal welfare groups.

The Panel's terms of reference states:

The panel will finalise the Australian Animal Welfare Standards and Guidelines for Poultry. The panel will ensure the Animal Welfare Standards and Guidelines for Poultry meet the following objectives:

- *Provide the basis for nationally consistent and effectively enforced regulation*
- *Improve animal welfare outcomes within Australia's poultry industries*
- *Reflect contemporary animal welfare science, taking into account current industry practices, cost-benefits, new technologies and practicalities of implementation*
- *Align with the values and expectations widely shared by the Australian community*

- *Meet the expectations of trading partners, taking into account possible domestic and international trade impacts.*

Terms of Reference¹

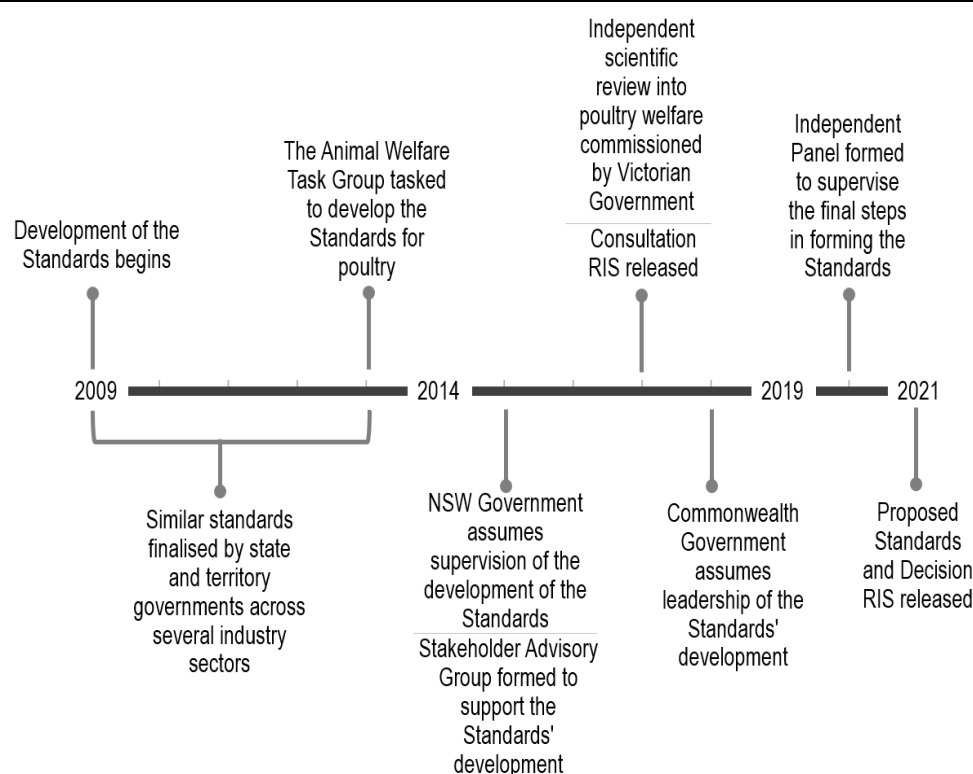
An extended public consultation period was held prior to the development of this Decision RIS. The public consultation objective was to seek the views and advice of interested parties in further formulating preferred national standards and guidelines for poultry welfare.

In November 2017, the draft poultry welfare standards and guidelines were released for public consultation, accompanied by a CRIS.² The CRIS was developed by consultants Tim Harding & Associates, overseen by AHA and NSW Department of Primary Industries. The CRIS and draft standards received over 167,000 responses during the consultation period.

The Independent Panel considered responses to the CRIS and the matters in their terms of reference which might support any changes to the draft Standards. As a result of the Independent Panel's work, the Standards proposed in the CRIS have been refined and incorporated in this Decision RIS. Further information on panel decisions and how they responded to feedback on the CRIS can be found at Attachment A.

The timelines of the development of the Standards, including the RIS process, are shown in **Figure 1.1**.

Figure 1.1 Timeline of development of the proposed Standards



Source: Source: ACIL Allen

¹ Department of Agriculture, Water and the Environment, 2021, Australian Animal Welfare Standards and Guidelines for Poultry, available at: <https://www.agriculture.gov.au/animal/welfare/standards-guidelines/poultry#read-the-full-terms-of-reference>.

² Animal Health Australia, 2017, Proposed Australian Animal Welfare Standards and Guidelines Poultry Consultation Regulatory Impact Statement, available at: <http://www.animalwelfarestandards.net.au/files/2015/07/Public-Cons-Version-Poultry-RIS-Nov-2017.pdf>

It is important for government to provide transparency in the policy and decision-making process when considering regulatory changes. A detailed timeline of the process, from recommendations to review the MCOPs through to the Decision RIS, is provided at Appendix B. The additional context provided in this timeline ensures stakeholders have visibility of the considerations that led to the recommendations in this document.

1.2.2 Next steps

The draft Standards and this Decision RIS will be considered by the Agriculture Senior Officials Committee (AGSOC) and endorsed/noted at the Agriculture Ministers Meeting (AMM).

The Office of Best Practice Regulation (OBPR) has reviewed this Decision RIS and has agreed that it meets National Cabinet requirements for impact analysis.

The nature of the problem

2

2.1 Overview of the Australian Poultry Industry

Australian poultry industries covered by the draft Standards can be divided into the following four groups:

- The egg industry, including production of both fresh whole eggs for consumption and processed or pulped eggs for the manufacturing of baked goods and other products.
- The chicken meat industry, for production of chicken meat.
- The breeding industry, for the production of fertile eggs to be used for the supply of hens to the egg industry and chickens to the chicken meat industry.
- Non-chicken poultry industries such as ducks, emus, turkeys, geese, pheasants, ostriches, guinea fowl, partridge, quail, pigeons – raised for meat, eggs, and other purposes.

2.1.1 The Australian Egg Industry

The egg industry comprises a few large producers and many small and medium sized producers as well as some domestic 'backyard' egg production. Commercial egg production is largest in New South Wales (NSW), Queensland (QLD) and Victoria (VIC), with NSW accounting for the largest percentage of businesses with more than 32% of businesses located in the state³. A breakdown of the largest egg producers and their respective market share is provided below:

Table 2.1 Market share of major players in the Australian egg industry

Company	Market share
Company A	39%
Company B	31.9%
Company C	7.8%
Company D	2.0%

Source: IBISWorld, April 2021, AU INDUSTRY (ANZSIC) REPORT A0172: Egg Farming in Australia.

The Australian Egg Industry has also experienced strong results with 507.39 million dozen eggs produced and a resulting \$832.9 million gross value for the 2020 financial year.⁴

³ Proposed Australian Animal Welfare Standards and Guidelines for Poultry – Consultation Regulatory Impact Statement (CRIS), 2017, Tim Harding & Associates (Rivers Economic Consulting).

⁴ Australian Eggs, 2020, Annual Report 2020, pp. 4 -5, available at: www.australianeggs.org.au/who-we-are/annual-reports.

2.1.2 The Australian chicken meat industry

The chicken meat industry is predominantly vertically integrated, that is, individual companies own almost all aspects of production – breeding farms, fertile egg production farms, feed mills, some broiler growing farms, and processing plants. Two large integrated national companies, Baiada and Inghams Enterprises, supply a large proportion of Australia's broiler chickens. A breakdown of the largest poultry processing producers and their respective market share is provided below:

Table 2.2 Market share of major players in the Australian chicken meat industry

Company	Market share
Company E	27.1%
Company F	22.3%
Company G	6.8%
Company H	5.0%

Source: IBISWorld, April 2021, AU INDUSTRY (ANZSIC) REPORT C1112: Poultry Processing in Australia.

Australia's poultry farm production has grown rapidly and plays a critical role in maintaining the vitality of livestock industries. According to the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), the gross value of poultry production in 2019-20 was estimated to be around \$2.9 billion per year.⁵ Chicken meat has also grown in popularity, particularly amongst consumers, with poultry consumption now the most consumed meat in Australia.⁶

2.1.3 Non-chicken meat industry

Table 2.3 Market information on non-chicken poultry production

Species	Market information
Ducks ⁷	Two companies account for 85% of duck meat production: – Company A (100,000 ducks/week) – Company B (70,000 ducks/week)
Turkeys ⁹	Three main producers: – Company C (60 to 65% market share) – Company D (10,000 – 15,000 turkeys/week) – Company E (10,000 – 15,000 turkeys/week)
Quail ¹⁰	Industry annual net value of AU\$14 million One large quail 'farm' that processes 15,000 birds per week.

Source: Various, see footnotes

⁵ Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), 2020, Australian Poultry Industry, available at: ABA4733_1220_Aus Xmas product graphics (agriculture.gov.au).

⁶ Ibid.

⁷ Agrifutures. 2017. Ducks [Online]. Australia: AgriFutures. Available: <https://www.agrifutures.com.au/farm-diversity/ducks/>.

⁸ Poultryhub. n.d. Duck [Online]. Australia: PoultryHub. Available: <https://www.poultryhub.org/all-about-poultry/species/duck>.

⁹ Poultryhub. n.d. Turkey [Online]. Australia: PoultryHub. Available: <https://www.poultryhub.org/all-about-poultry/species/turkey>.

¹⁰ AgriFutures Australia, 2017, Game Birds, available at: <https://www.agrifutures.com.au/farm-diversity/game-birds/>.

2.2 Identifying the problem

For the past two decades, stakeholder feedback across the livestock and animal welfare sectors has identified a series of pervasive and consistent policy problems that require regulatory intervention. For the poultry industry, distillation of this feedback has identified four key problems with existing poultry welfare protection arrangements:

- **Problem 1: risks to the welfare of poultry** due to deficiencies in the existing MCOPs and jurisdictional codes of practice for the welfare of poultry.
- **Problem 2: uncertainty for the consumer, the community and the supply chain** about the animal welfare credentials of poultry products.
- **Problem 3: uncertainty for industry** due to a lack of transparent and verifiable standards.
- **Problem 4: excess regulatory burden** for industry arising from a lack of national consistency.

In response to significant public feedback (which included some 167,000 submissions) on the CRIS, and further engagement and work of the Independent Panel, Problem 2 was introduced as a fourth problem.

The regulatory failures associated with problems 2, 3 and 4 are considered second order issues compared to the animal welfare issues associated with problem 1.

The problems identified above are consistent with reporting on broader agricultural sector operations. For example, a 2016 Productivity Commission inquiry report¹¹ into the regulation of Australian agriculture stated that:

- although current animal welfare regulations seek to achieve welfare outcomes that (among other things) meet community expectations, the current process for setting standards for farm animal welfare does not adequately value the benefits of animal welfare to the community;
- inconsistent regulation makes it difficult to effectively inform consumers, and inconsistent standards create uncertainty for industry;
- differences in how rules are enforced (particularly in the area of planning decisions across local governments) can create uncertainty for farm businesses; and
- inconsistent regulation across jurisdictions is a source of an unnecessary regulatory burden that adds to the cost of doing business and makes it more difficult for farmers to understand their obligations.

Moreover, research commissioned by the Department in 2018 shows there is a shifting mindset on farm animal welfare in Australia. The research suggests there is a growing level of public expectation that the regulation of animal welfare should be effective, consistent and proactive. The quantitative analysis provided in this research suggests a high percentage of the 1,521 respondents to a national survey see the need for “significant reform” (40 per cent), with 35 per cent wanting “slight reform” and 16 per cent believing some kind of reform was required.¹² The report also cites an array of existing quantitative research that supports these survey findings and the proposition that the current welfare standards of chickens farmed for egg production (in particular), are a concern to the broader community.

Stakeholder feedback provided to the CRIS and collected through a range of other sources clearly demonstrates that problems 1 through 4 are significant, far-reaching and require resolution.

¹¹ Productivity Commission, 2016, Regulation of Australian Agriculture, available at: <https://www.pc.gov.au/inquiries/completed/agriculture/report/agriculture.pdf>.

¹² Futureye, 2018, Australia’s Shifting Mindset on Animal Farm Welfare, Consultancy Report, available at: <https://www.outbreak.gov.au/sites/default/files/documents/farm-animal-welfare.pdf>.

2.2.1 Problem 1: Animal welfare

According to the World Organisation for Animal Health, animal welfare means:

The physical and mental state of an animal in relation to the conditions in which it lives and dies. An animal experiences good welfare if the animal is healthy, comfortable, well nourished, safe, is not suffering from unpleasant states such as pain, fear and distress, and is able to express behaviours that are important for its physical and mental state.

*World Organisation for Animal Health, Terrestrial Animal Health Code, 2018*¹³

Poor animal welfare can be caused by experiences or practices that negatively impact the ability of an animal to cope with its environment. In severe cases, this could attract a prosecution under the cruelty provisions of existing animal welfare legislation.¹⁴ Animal welfare is complex and only understood within the limits of current scientific understanding. The extent of the problem is inherently unmeasurable in aggregate and where it is possible to measure a dis-preferred outcome in some animals, it is unethical to test this in many cases.

Issues which may result in poor animal welfare include:

- a lack of clear responsibilities for personnel in charge of poultry;
- a lack of freedom of poultry to express highly motivated behaviours;
- inadequate space allowances for poultry (stocking density);
- a lack of perches, nests, and litter for layer hens (production systems);
- a lack of quantitative lighting standards;
- the unrestricted routine use of beak trimming;
- risky litter management;
- the unrestricted routine use of induced moulting;
- unclear requirements for care of meat chickens and turkeys awaiting slaughtering;
- restricted access to water for ducks;
- a lack of pain relief for painful husbandry procedures;
- meat chicken breeder feed restriction; and
- male layer chick maceration.

Most of these issues were identified at a 2015 Stakeholder Advisory Group (SAG)¹⁵ meeting and through scientific literature provided by stakeholders. The final three issues (lack of pain relief for painful husbandry procedures; meat chicken breeder feed restriction; and male layer chick maceration) were identified at the SAG meeting of June 2019.

In relation to slaughtering practices for poultry, due to the complexities involved with this issue, it was considered appropriate to move these provisions out of the Australian Animal Welfare Standards and Guidelines for Poultry and instead, include them in the new Australian Animal Welfare Standards and Guidelines for Livestock Processing Establishments, which are currently being developed. By dealing with this issue in the wider standards for processing establishments, this will ensure a consistent approach to the regulation of slaughter practices for all livestock.

¹³ World Organisation for Animal Health, 2018, Terrestrial Animal Health Code, available at: https://www.oie.int/fileadmin/Home/eng/Health_standards/tahc/current/chapitre_aw_introduction.pdf.

¹⁴ Hemsworth, P.H., Mellor, D.J., Cronin, G.M. and Tilbrook, A.J., 2015, Scientific assessment of animal welfare, New Zealand Veterinary Journal. 63(1), 24-30.

¹⁵ The SAG was formed in 2015 by AHA and the NSW Government to inform the development of the proposed Standards. See Appendix B for more detail.

Table 2.4 describes the scale of the risk to animal welfare, with each category based on the probability and quantum of animals affected, the severity or intensity and the duration.

Table 2.4 Animal welfare risk assessment based on key poultry welfare issues

Risk	Probability (Low, Medium, High)	Number of animals (Low, Medium, High)	Severity (Low, Medium, High)	Duration (Short, Medium, Long)
Reduced space allowance in cages (layer hens)	High	High	High	Long
Lack of environment enrichment in cages (layer hens)	High	High	Medium	Long
Lack of open water (ducks)	High	High	Medium	Long
Induced moulting (layers and breeders)	Low	Medium	High	Medium
Hot blade beak trimming/debeaking (layer hens)	High	High	High	Short
Dim light	High	High	Medium	Long
Continuous light (24 h period)	High	High	High	Long
High ammonia levels	Medium	High	High	Medium
High stocking densities	High	High	Medium	Long
Feed restriction (meat chicken breeders)	High	Medium	High	Long
Painful husbandry	High	High	High	Short
Lack of nest areas	High	Medium	Medium	Long
Fire	Low	High	High	Short

Source: Risk assessment adapted from Paton, M.W., Martin, P.A.J., and Fisher, A.D. (2013), *Risk assessment principles in evaluation of animal welfare*, *Animal Welfare*, 22(2), 277-285.

Increasing minimum space allowance for caged layer hens

Approximately 55 per cent of layer hens in Australia are housed in conventional cages.¹⁶ Caged layer hens are currently provided with space allowances of 550 cm²/bird, while overseas furnished cages usually provide 750cm²/bird. There is evidence in the scientific literature that shows reduced space allowances within the range of 271-561cm²/bird, are likely to lead to reduced egg production, food consumption and increased mortality.¹⁷ Space allowances between 542-750cm²/bird have also been associated with behavioural restrictions including reduced walking, leg and wing stretching, tail wagging, pecking at objects and preening.¹⁸ Furthermore, there is evidence that space allowances within a range of 390-516cm²/bird have been shown to increase stress in laying

¹⁶ BG Economics, 2018, Phasing Out Conventional 'Cage Egg' Production in Australia: A 10-year transition analysis, Parliament of New South Wales, NSW.

¹⁷ Hemsworth, P.H., 2021, Cage production and laying hen welfare, *Animal Production Science*.

¹⁸ Hemsworth, P.H. & Edwards, L.E., 2020, Natural behaviours, their drivers and their implications for laying hen welfare, *Animal Production Science*.

hens.¹⁶ Larger space allowances per hen, above the current legal requirement of 550cm²/bird, would allow greater behavioural expression.

Environmental enrichment in cages

There is scientific evidence that demonstrates the negative impacts of smaller, conventional cages on poultry welfare such as increased frustration due to the inability for birds to perform highly motivated behaviours, such as perching, dustbathing and nesting.¹⁹ The primary cause of these negative impacts is the lack of opportunity to express highly motivated behaviours caused by the barren environment of conventional cages. Therefore, conventional cages may risk the welfare of poultry. Health benefits of conventional cages (including lower mortality rate and a reduced rate of infectious disease) can be achieved by well-managed furnished cage systems where the cage environment is enriched with objects that provide behavioural opportunities.¹⁸ To achieve improved welfare outcomes through behavioural expression, furnished cages must be well-designed, and should include nest boxes, perches and foraging substrates as well as provide sufficient space allowance (750cm²/bird).^{17,18,19}

Providing ducks with access to water

There are currently no regulatory requirements for the provision of water for ducks, other than to meet their drinking needs. Ducks are highly motivated and show a clear preference for open water sources which allow immersion, preening, head dipping and dabbling.^{20,21} Research indicates that without access to open water, ducks experience frustration which increases the risk of developing abnormal behaviours such as head shaking, stereotypic feather preening and/or self-mutilation through feather pecking, indicating a poor state of welfare.^{20,22} Breeder ducks, and those kept for egg production, may experience greater impacts caused by a lack of water for preening and dabbling, due to their relative longevity compared with meat ducks.

Induced moulting

Moulting is part of the natural life cycle of adult chickens. It normally occurs once a year, often over winter, and involves the shedding and renewal of feathers.²³ Under natural conditions this process generally allows a period of reproductive rest for chickens. Within the commercial egg industry, moulting may be induced, to rejuvenate egg laying performance and extend the productive life of hens.²⁴ There are two types of induced moulting, fasting (feed withdrawal) and non-fasting.^{23,24} Scientific evidence has indicated fasting induced moults are associated with a substantial increase

¹⁹ Nicol, C.J., Bouwsema, J., Caplen, G., Davies, A.C., Hockenhull, J., Lambton, S.L., Lines, J.A., Mullan, S. & Weeks, C.A., 2017, Farmed bird welfare science review. Department of Economic Development, Jobs, Transport and Resources, Victoria.

²⁰ Cooper, J.J., McAfee, L. and Skinn, H., 2002, The behavioural responses of domestic ducks to nipple drinkers, bell drinkers and water troughs. *British Poultry Science* 43: S17-S18.

²¹ Heyn, E., Damme, K., Bergmann, S., Remy, F., Kuster, Y. and Erhard, M., 2009. Open water systems for species-appropriate housing of Peking ducks: effects on behaviour, feather quality and plugged up nostrils., *Berl Munch Tierarztl Wochenschrift* 122(7-8): 292-301.

²² Rodenburg, T.B., Bracke MBM, Berk, J., Cooper, J., Faure, J.M., Guémené, D., Guy, G., Harlander, A., Jones, T., Knierim, U., Kunt, K., Pingel, H., Reiter, K., Servière, J. & Ruis, M.A.W., 2005, Welfare of ducks in European duck husbandry systems. *World's Poultry Science Journal*, 61(4), 633-646

²³ Silva-Mendonça, M. C. A., Fagundes, N. S., Mendonça, G. A., Gonçalves, F. C., Fonseca, B. B., Mundim, A. V. and Fernandes, E. A., 2015, Comparison of moulting methods for layers: high-zinc diet versus fasting, *British Poultry Science*, 56(5), 598-604.

²⁴ Shimmura, T., Eguchi, Y., Uetake, K. and Tanaka, T., 2008, Comparison of behaviour, physical condition and performance of laying hens in four molting methods, *Animal Science Journal*, 79(1), 129-138.

in mortality during the feed withdrawal period compared to non-fasting programs.¹⁹ While non-fasting induced moults can address some of the welfare concerns caused by fasting, induced moulting as a practice causes a significant increase in stress, weight loss, risk of bone breakage, frustration due to not being able to eat, and mortality.^{19,24} Consequently, this practice has well-recognised negative welfare consequences.¹⁹

Hot blade beak trimming

Beak trimming, also known as debeaking, is routinely performed on layer chicks in Australia at the hatchery within the first few days of life. Hot blade beak trimming was previously favoured by the poultry industry but has been largely phased out in favour of infrared beak trimming (IRBT) because of the invasiveness of the hot blade.^{19,25} IRBT is associated with less side effects than hot blade beak trimming. There are several welfare concerns associated with beak trimming including acute and chronic pain and negative effects on hen behaviour, food intake and body weight.^{19,26} Beak trimming is conducted to limit feather pecking, as an outbreak of severe or cannibalistic feather pecking can cause severe injuries and mortalities in a flock.

Minimum lighting provisions for all poultry

Good management of lighting conditions for poultry is extremely important to regulate both production and the welfare of poultry.^{27,28} The use of continuous or near-continuous lighting for meat and layer chickens is used to stimulate feed consumption and growth as well as improve productivity.^{27,28} Producers will often include short periods of darkness (generally less than 30 minutes) to 'train' birds in case of a power failure. Dim light, very short or long photoperiods, and continuous illumination, can all adversely affect the development of the eye, its ability to focus and may increase the incidence of skeletal disorders and footpad dermatitis.^{27,28,29} The type of light source can also have an impact on behaviour, with incandescent lights increasing nesting behaviours for layers and warm-white fluorescent light increasing preening and perching in meat chickens.^{30,31} There is a lack of quantitative evidence on lighting regimes under Australian conditions.

Ammonia levels

High concentrations of ammonia (above 25 ppm) can have significant adverse effects on the health and production performance of poultry, as it can irritate the respiratory system and eyes, causing

²⁵ Gentle, Michael J., 2011, Pain issues in poultry, *Applied Animal Behaviour Science*, 135(3), 252-258.

²⁶ Hughes, B. and Gentle, M., 1995, Beak trimming of poultry: its implications for welfare, *Worlds Poultry Science Journal*, 51(1), 51-61.

²⁷ Deep, A.; Schwan-Lardner, K.; Crowe, T. G.; Fancher, B. I.; Classen, H. L., 2010, Effect of light intensity on broiler production, processing characteristics, and welfare, *Poultry Science*, 89(11), 2326-2333.

²⁸ Raziq, F., Hussain, J., Mahmud, A., and Javed, K., 2021, Effect of light sources on productivity, welfare aspects, and economic evaluation of commercial layers, *Turkish Journal of Veterinary & Animal Sciences*, 45(1), 176-190.

²⁹ Deep, A., Raginski, C., Schwan-Lardner, K., Fancher, B. I., and Classen, H. L., 2013, Minimum light intensity threshold to prevent negative effects on broiler production and welfare, *British Poultry Science*, 54(6), 686-694.

³⁰ Kristensen, Helle H., Prescott, Neville B., Perry, Graham C., Ladewig, Jan, Ersbøll, Annette K., Overvad, Katja C., and Wathes, Christopher M., 2007, The behaviour of broiler chickens in different light sources and illuminances, *Applied Animal Behaviour Science*, 103(1), 75-89.

³¹ Tavares, B.O, Pereira, D.F., Bueno, L.G.F., and Silva, G.F., 2015, Behavior of Layers under Different Light Sources, *Brazilian Journal of Poultry Science*, 17(4), 511-516.

increased susceptibility to respiratory disease and inflammation of the eyes.³² Birds have also been shown to avoid ammonia in concentrations found in commercial poultry houses, with a preference for fresh air when given a choice, but will tolerate levels of less than 15 ppm.³²

Installing basic firefighting equipment

Poultry sheds contain highly combustible materials such as dry litter bedding, grain feed, airborne dust, feathers, and flammable gases such as ammonia. Poultry sheds are therefore vulnerable to fire hazards where these materials represent a high fire load density which can cause very rapid fire spread and can complicate firefighting efforts. Death by fire and hot smoke inhalation is inhumane.³³ Installing basic firefighting equipment and having a fire management plan is important to safeguard farms and poultry welfare.

Stocking densities

Stocking density is one of the most important factors that can impact the welfare of poultry. High stocking densities can have negative impacts on poultry welfare including increased stress, thermal discomfort, feather pecking (depending on the housing system), restricted movement and resting behaviour and reduced leg health.^{19,34,35} There can also be negative impacts on performance and production such as reduced growth rates and meat quality as well as increased mortality.^{18,33} Furthermore, as stocking densities increase, dust and ammonia concentrations increase which impacts air quality, hen immunity and respiration.³⁶

Feed restriction in meat chicken breeders

Meat chicken breeders (also known as broiler breeders) experience restricted feeding regimes during rearing and laying to control and avoid rapid growth rates.³⁷ As a consequence of genetic selection for rapid growth, if feed is not restricted for meat chicken breeders, this increases the risk of mortality, lameness, obesity, and poor fertility/reproduction.^{19,37} Although restricted feeding can improve health outcomes and reproductive performance, it results in a number of welfare concerns including chronic hunger, stress, and negative welfare states such as frustration, aggression, and increased displays of stereotypic behaviour.^{19,37} Without genetic changes, the restricted feeding of meat chicken breeders remains one of the only ways to manage the negative impacts on fertility and health caused by rapid growth rates.

Painful husbandry procedures without pain relief

Any surgical procedure (including debeaking/beak trimming, toe trimming, dubbing, desnooding, castration, pinioning and devoicing) carried out without analgesia and anaesthesia can result in significant acute pain and potentially chronic pain.^{38,39} The lack of commercially available and

³² David, B., Mejdell, C., Michel, V., Lund, V., and Moe, R.O., 2015, Air Quality in Alternative Housing Systems may have an Impact on Laying Hen Welfare. Part II—Ammonia, *Animals*, 5(3), 886-896.

³³ Gregory, NG, 2004, *Physiology and Behaviour of Animal Suffering*. Blackwell Science.

³⁴ Bessei, W., 2006, Welfare of broilers: a review, *World's Poultry Science Journal*, 62(3), 455-466.

³⁵ Ferrante, V., 2009, Welfare issues of modern laying hen farming, *Italian Journal of Animal Science*, 8(1s), 175-189.

³⁶ Homidan, A.A.L. and Robertson, J.F., 2003, Effect of litter type and stocking density on ammonia, dust concentrations and broiler performance, *British Poultry Science*, 44(1S), S7-8.

³⁷ Mench, J.A., 2002, Broiler breeders: feed restriction and welfare, *World's Poultry Science Journal*, 58(1), 23-29.

³⁸ Stafford, K.J., Mellor, D.J., and Vogel, K., 2021, *Painful Husbandry Procedures in Livestock and Poultry*, T. Grandin, *Improving Animal Welfare: A Practical Approach*, 3rd edn, CAB International, United Kingdom, 113-144.

³⁹ McLennan, K.M., 2018, Why Pain Is Still a Welfare Issue for Farm Animals, and How Facial Expression Could Be the Answer, *Agriculture*, 8(8), 127-145.

registered postoperative analgesia (pain relief) for poultry in Australia is an important issue. In the absence of commercially available pain relief, restricting husbandry procedures to only being performed under veterinary advice can help to reduce negative impacts.

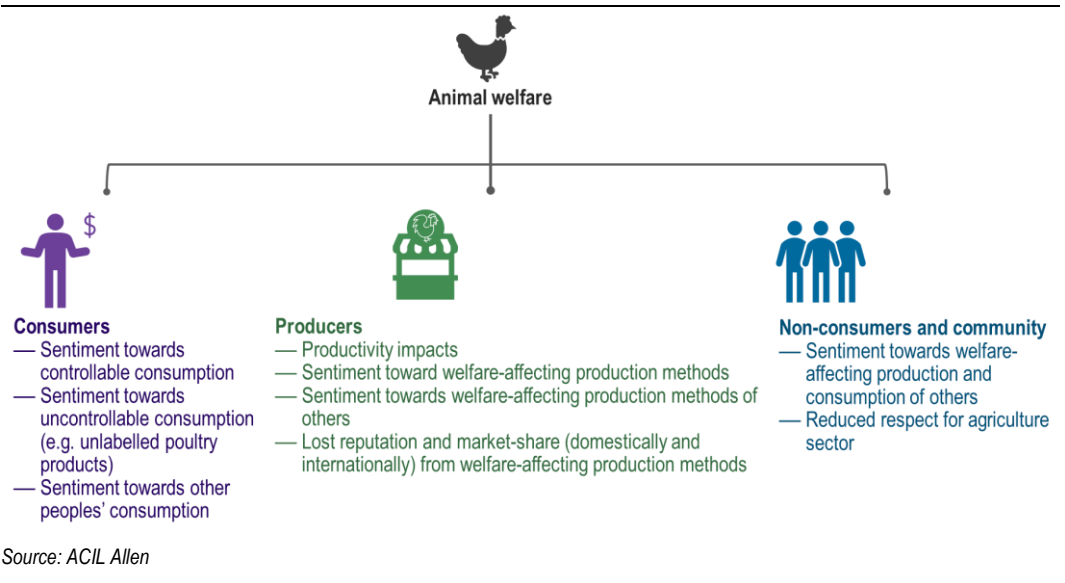
Providing nest areas

Nesting is a highly motivated behaviour of birds where they will substantially increase efforts to seek out a suitable nest site and nesting material in preparation for egg laying.¹⁹ Deprivation of suitable nest areas and materials can impact poultry welfare where it can, for example, increase frustration and stress in the birds and ultimately, may have negative impacts on egg production.¹⁹ Provision of nest areas and suitable nesting material to allow nesting behaviour to be successfully performed by birds will help safeguard poultry welfare.

2.2.2 Problem 2: Animal welfare uncertainty and impacts on consumers, the community and the supply chain

Beyond the overall health and wellbeing of poultry species, the costs of animal welfare uncertainty also impacts consumers, the community, and the supply chain. These impacts are outlined in Error! Reference source not found..

Figure 2.1 Impacts of animal welfare uncertainty on the community



Direct and indirect impacts on consumers and the supply chain

Consumers associate animal welfare outcomes with product quality, with many now expecting acceptable animal welfare standards to be guaranteed⁴⁰. However, because consumers have little insight into the supply chain process, it is difficult for them to ascertain the animal welfare standards that relate to the poultry products they consume. This increases the risk of purchasing products tied to poor animal welfare outcomes where they would otherwise have preferred different animal welfare outcomes.

The presence of markets for secondary goods and services based on poultry products (such as meals served in restaurants containing poultry) further places consumers in a difficult position, as they are unable to control their consumption and again, may unknowingly consume products which

⁴⁰ Futureye, 2018, Australia's Shifting Mindset on Animal Farm Welfare, Consultancy Report, available at: <https://www.outbreak.gov.au/sites/default/files/documents/farm-animal-welfare.pdf>. P. 94.

have been produced under circumstances where welfare practices are poor or low. Additionally, it is difficult for many consumers to obtain or access information about the treatment and condition of animals for manufactured products which contain poultry products — such as baked goods — even with labelling. This is addressed further in Problem 4, below.

For some consumers, this uncertainty may impact their consumption of poultry products. Quantitative research indicates that out of all the livestock industries, the public has the highest concern for the welfare of chickens for egg production, followed next by chickens for meat production. As a result, in the 2018-19 financial year, only 40 per cent of cage eggs were sold through supermarkets, and only 11 per cent of barn laid eggs. While this uncertainty can be mitigated by communicating the conditions of animal welfare through certification and labelling (i.e. organic and free-range eggs), quantitative and qualitative research has found that the public do not trust the information provided on farm animal welfare or any of the certification and labelling schemes, and they are only willing to pay more for a product if they are assured labelling aligns to acceptable animal welfare standards and do not exist purely for marketing or advertising purposes⁴¹ (see examples of product labelling at **Error! Reference source not found.**).

Figure 2.2 Examples of product labelling of animal welfare conditions



Source: Adapted from Harris Farm Markets, accessible at <https://www.harrisfarm.com.au/>

Moreover, non-consumers can be affected by inadequate animal welfare even if they are not directly participating in the market. For example, people who consciously avoid animal products (such as vegans) may be harmed by the production and consumption of poultry products with inadequate animal welfare. Feedback from the CRIS process showed that those who do not consume poultry products still suffered wellbeing impacts from practices including caged egg production.⁴² These indirect impacts represent an externality associated with inadequate animal welfare, where the retail prices of poultry products are insufficient since they do not include the non-market welfare costs of non-market participants (since there are no market-based transactions to alleviate them).

Therefore, to improve consumer and community confidence that acceptable animal welfare standards for poultry are in place, the draft Standards rely on more rigorous science and evidence of community values for animal welfare.

It should be noted that animal welfare awareness of this industry has increased in recent years. In 2009, caged eggs made up 70 per cent of all eggs sold in Woolworths, however, this figure had dropped to 50 per cent by 2013.⁴³ According to an April 2021 IBISWorld report, cage eggs now account for 30 per cent of the egg market, with barn-laid accounting for 11 per cent, organic accounting for 3 per cent and free range accounting for the largest segment, at 56 per cent of the

⁴¹ Ibid, pg.9.

⁴² For example, many of the short form submissions expressed anger and distress in relation to caged egg practices in Australia. Emotive language such as 'barbaric' and 'equivalent to slavery' were used to describe the practice, and many believed that 'Australia could do better'. It was clear that people were indirectly affected by the practice, as it was stated that those who did not purchase caged eggs were still 'reminded of cruelty every shopping trip'. More views are available at Appendix 5 of the [Public Consultation Report](#).

⁴³ Whyte, S, 2013, *Woolworths to phase out all battery hen eggs*, available at: <https://www.smh.com.au/environment/conservation/woolworths-to-phase-out-all-battery-hen-eggs-20131003-2uxhf.html>

market share.⁴⁴ The IBISWorld report states that many consumers have switched from cage to free-range eggs in response to concerns regarding animal welfare. However, it is acknowledged that cage eggs are still seen as an affordable source of protein for low-income families and that continued sales of cage eggs suggest that there is strong demand for them⁴⁵.

Production and market share impacts

Producers may cause animal suffering due to misunderstanding of animal welfare or poor production practices, even if they do not intend to cause animal suffering needlessly. Farming practices which do not meet consumer expectations about animal welfare could reduce the demand for a producer's products. This will ultimately reduce a producer's profitability over time.

Also, markets respond to animal welfare standards. The treatment of animals by parts of the poultry industry can hurt the reputation of the industry as a whole. International and domestic markets can, and will, continue to respond to Australian animal welfare conditions.

However, it should be acknowledged that some producers are likely targeting a lower price point in the market and are rationally choosing the level of animal welfare they provide in their supply chain. As discussed above, some consumers will be more influenced by the price of the product than the animal welfare standards of the production process. Therefore, producers targeting this lower price point may be engaging in lower standards of animal welfare to minimise production costs.

2.2.3 Problem 3: Industry uncertainty due to deficiencies of the MCOP

The current domestic poultry MCOP, which was established in 2002, is outdated and does not reflect contemporary animal welfare science, current industry practices, and new technologies.

The out-dated nature of the MCOP presents significant risk, where despite not being mandatory, they are still used as an industry benchmark. This means practices that would be considered cruel under modern day sentiment, may still be permitted. In some cases, this has protected industry from prosecution and acted as a defence exemption for producers when they would otherwise be in breach of animal cruelty legislation.

Additionally, if industry continue to use the MCOP to inform quality assurance programs (for example, Egg Standards Australia), this will inhibit improvements to production standards and animal welfare, as they do not reflect contemporary animal welfare science or community expectations. From a trade perspective, this can possibly put exports to welfare-sensitive markets at risk, as the MCOP are the only set of national guidelines that overseas markets can use to assess and benchmark Australia's animal welfare standards.

Furthermore, the MCOP include a confusing mixture of standards (i.e., 'must' requirements) and guidelines (i.e., 'should' statements) – sometimes even within the same clause, as shown in the examples in Box 2.1 below. 'Should' statements cannot be made mandatory because the wording does not require compliance. As such, these codes are not sufficiently clear or verifiable for implementation and enforcement purposes. Such lack of clear and verifiable standards (and in turn responsibilities) has made the integration of the MCOPs into industry programs such as training and quality assurance programs, much more difficult, creating another restriction on adequately managing animal welfare risks.

⁴⁴ IBISWorld, April 2021, AU INDUSTRY (ANZSIC) REPORT A0172: Egg Farming in Australia.

⁴⁵ Stakeholder submissions in CRIS (2017).

Box 2.1 Examples of uncertain language across regulation

The Consultation RIS (Section 2.4.1) gives a number of examples of unclear language throughout regulation. Emphasis is added by the authors.

For example, Clause A4.2.1 of Appendix 4 of the Domestic poultry MCOP states in part:

It [bill trimming] should be carried out only when it is essential to reduce damage and suffering in the flock. It must be carried out only by a skilled operator and only the rim at the front of the upper bill should be removed.

Similarly, Clause 2.4.3.3 of the Victorian Code of Accepted Farming Practice for the Welfare of Poultry states in part:

Available linear perches should allow not less than 15cm per hen. Perches must be without sharp edges, and must be positioned to minimise fouling of any birds below.

Once again, Clause 2.4.5.4 of the Code of Practice for Poultry in Western Australia states:

Birds on the range must have ready access to shaded areas and shelter from rain, and windbreaks should be provided in exposed areas.

Source: Consultation RIS, 2017

2.2.4 Problem 4: Regulatory burden on industry due to inter-jurisdictional differences between poultry welfare requirements

Differences in the application of the MCOPs across jurisdictions have created uncertainty for industry as they attempt to comply with varying animal welfare standards across different states and territories. Currently, states and territories have the discretion to integrate the MCOPs into their relevant legislative provisions. Because of this, some jurisdictions like the Australian Capital Territory and Tasmania have imposed higher animal welfare obligations on industry/producers, such as additional requirements on caged egg production, whereas others have not. For large companies that operate over multiple jurisdictions, this lack of consistency in standards makes it difficult to ascertain their exact obligations and this presents a burden as they have to meet different requirements. Whilst it is not possible to quantify the precise extent of this problem, it is likely to be significant for those affected businesses operating in more than one jurisdiction. In addition, a lack of consistency in standards can result in increased costs to establish or operate national quality schemes and training programs by industry associations.

The CRIS identified that at least four large poultry businesses operate across state lines and are likely to be subject to increased compliance costs and regulatory burden under the current code. Information on these cross-jurisdictional businesses is provided below:

- *Farm Pride Foods Ltd. has egg farming operations in both Victoria and New South Wales;*
- *Pace Farm Pty Ltd has egg farming operations in Victoria, New South Wales, Australian Capital Territory and Queensland;*
- *The two largest integrated meat chicken companies (Inghams Enterprises Pty Ltd. and Baiada Poultry Pty Limited) are headquartered in NSW, but have operations in all other states.*

Consultation RIS, 2017, pp 49.

To give a specific example, differences in ACT animal welfare regulation and other state-based regulation has affected the operations of Pace Farms. Under ACT Animal Welfare regulation any form of beak trimming in poultry production is prohibited. As a result, Pace Farms was required to phase out these practices.

Beak trimming, as a procedure, is intended to be used as a measure that prevents chickens from engaging in feather pecking, which can lead to injury and mortality. Therefore, this ban can not only

lead to negative animal welfare outcomes, but also ongoing production losses due to increased injury/mortality that results from outbreaks of injurious feather pecking.

Because of this, Pace Farms must maintain varied production methods across its facilities based on the jurisdictional differences in regulation, regardless of what operational process it has identified as maximising the benefits for the company and the poultry.

This issue of jurisdictional differences is further compounded by the fact that requirements, even when consistent, may be drafted and presented differently depending on which state's regulation is examined. The CRIS provided an example of language differences between the MCOP and the Victorian and South Australian regulations for cage heights and cage door heights and widths as illustrated in **Table 2.5**.

Table 2.5 Examples of misaligned regulation

MCOP standard	Victorian regulation	South Australian regulation
2.3.1.5. In cages, birds must be able to stand at a normal height. Cages must be at least higher than the maximum height of all the poultry standing normally. The height of all cages must be at least 40 cm over 65% of the cage floor area and not less than 35 cm at any point.	7(4) The person must ensure that the height of each cage is greater than the maximum height of any domestic fowl standing normally in that cage.	23(1) A person who keeps domestic fowls confined in a cage must comply with the following requirements: ... (c) the height of the cage must be higher than the maximum height of a fowl confined in the cage while the fowl is standing normally;
2.3.1.6. The design and size of the cage openings must be such that birds can be placed in them and removed from them without causing injury or unnecessary suffering. Cages must have doors the full height and width of the cage. Since 1995, larger cages have been introduced and their doors must open either to full width or to a width of 50cm.	7(5) The person must ensure that each cage has a door with the following dimensions— (a) a height equal to the full height of the cage; (b) a width that is either— (i) at least 50 centimetres; or (ii) if the width of the cage is less than 50 centimetres, the full width of the cage.	23(1)(d) the cage must be constructed with a door as follows: (i) the height of the door must be the full height (not including the feed trough) of the cage; and (ii) the width of the door must be— (a) if the cage is less than 0.5 metres wide—the full width of the cage; (b) in any other case—at least 0.5 metres wide.

Source: Consultation RIS, 2017, Section 2.4.2, pp 49-50; Victorian Prevention Of Cruelty To Animals (Domestic Fowl) Regulations 2015; South Australian Animal Welfare Regulations 2012.

Whilst the meanings of the relevant Victorian and South Australian regulations on cage heights and widths are equivalent, they differ from Clause 2.3.1.5. of the MCOP on cage heights; and the meaning of Clause 2.3.1.6. of the MCOP is somewhat ambiguous and unclear in relation to cage widths and doors (that is, whether full cage width of 50 cm is required).

The case for government intervention

3

The problems, discussed in Chapter 2, are examples of regulatory and market failure. These suggest a role for governments to improve the regulation, and to solve problems that the market is unable to solve for itself.

3.1 Objective of government action

The policy objectives of the regulation are to:

- minimise risks to poultry welfare;
- reduce both industry uncertainty and excess regulatory burden in a way that is practical for implementation and industry compliance; and
- provide greater certainty for the consumer, the community and the supply chain about the animal welfare credentials of poultry products.

The main criterion for evaluating the options and any feasible alternatives, is the net benefit for the community, in terms of achieving these policy objectives. As part of the evaluation, there will be a need to ensure that benefits outweigh the costs, and that they take into account the expectations of Australian and international communities.

Policy options considered

4

4.1 Policy options

National cabinet guidelines require a RIS to identify feasible alternatives beyond the proposed standards and guidelines. From this perspective, the options considered by COAG agriculture ministers include:

- **Option 1:** maintain the existing MCOP (this is the baseline option).
- **Option 2:** introduce the proposed Standards and Guidelines as voluntary.
- **Option 3:** introduce the proposed Standards as compulsory and Guidelines as a voluntary set of guidelines.
- **Option 4:** introduce the proposed Standards as compulsory and Guidelines as a voluntary set of guidelines, with an extended phase out period for conventional cages until 2046.

The CRIS analysed three similar options — maintain the status quo, voluntary introduction of the Standards; and adopt the proposed Standards in full — in addition to four variations of the proposed Standards. The Panel, based on feedback on the CRIS (see Appendix A); and, an investigation of the economic impacts and scientific evidence, revised the proposed Standards as described in section 4.1.3.

Non-regulatory options have not been explored in this Decision RIS, as they have already been examined in the 2017 CRIS.

4.1.1 Option 1

Under Option 1 there are no changes to the current arrangements (i.e. the existing MCOP). This option establishes a baseline against which the impacts of the alternative options discussed below will be evaluated.

Baseline

Option 1 represents a baseline to compare impacts against.

The baseline projections are based on the following assumptions:

- Per person consumption of eggs will grow by the same average annual growth rate as seen over the past five years.
- Per person consumption of chicken meat and other poultry meats will grow by the same average annual growth rate as seen over the past five years.
- Australian population projections based on Australian Bureau of Statistics (ABS) and Australian Treasury.

- Specifically, the most recent ABS estimated resident population⁴⁶ is assumed to grow according to the near-term forecasts in the 2020-21 Mid-Year Economic and Fiscal Outlook⁴⁷, before reverting to the annual growth rates in the most recent ABS population projections.⁴⁸
- Major supermarkets will ban whole caged egg sales by 2025-26 onwards.^{49,50,51}
- There is natural replacement of cage infrastructure (but not of the sheds and other infrastructure) as existing facilities reach the end of their usable lives.⁵²
 - For any reduction in the number of layer hens housed in cages in the baseline period, it is assumed that the oldest facilities are converted/demolished first.

More details on the modelling are provided in Chapter 5.

4.1.2 Option 2

Option 2 involves introduction of the proposed Standards in a voluntary manner. As discussed in the CRIS, this would involve the issuing and promotion of endorsed national risk-based guidelines once every 5 years by AMM. These endorsed national guidelines would encompass 'should' statements as opposed to 'must' and, unlike the proposed Standards, these guidelines would not become regulations and therefore would not be mandatory.

The voluntary national guidelines would also be additional to existing state or territory standards and codes of practice and guidelines under the baseline option.

4.1.3 Option 3

Option 3 involves the introduction of the proposed Standards and Guidelines in full. The complete set of Standards and Guidelines are included in Appendix G.

The latest Standards reflect the available scientific knowledge, current practice, and community expectations. The deliberations of the Panel, informed by the comprehensive stakeholder engagement conducted throughout the development process, have shaped the proposed content of the Standards.

⁴⁶ The estimated resident population on 30 June 2020 was 25,687,041 (ABS, 2020, ABS Catalogue no. 3101, available at: <https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/jun-2020#data-download>).

⁴⁷ Population growth is estimated to drop to 0.2 per cent in 2020-21 and 0.4 per cent in 2021-22, and 1.2 per cent in the medium term (Commonwealth of Australia, 2020, Budget 2020-21, p2-7, available at: https://archive.budget.gov.au/2020-21/bp1/download/bp1_w.pdf).

⁴⁸ Medium/Series B from table B9 in Catalogue no. 3222 (ABS, 2018, ABS Catalogue no. 3222).

⁴⁹ Woolworths Group, 2021, *Animal Welfare*, available at: https://www.woolworthsgroup.com.au/page/community-and-responsibility/group-responsibility/responsible-sourcing/Animal_Welfare

⁵⁰ Norton, S, 2016, *Why so long: Aldi will stop selling cage eggs, but not for 9 years*, available at: <https://www.sbs.com.au/food/article/2016/05/26/why-so-long-aldi-will-stop-selling-cage-eggs-not-9-years>

⁵¹ Animals Australia, 2018, *10 supermarkets taking cage eggs off their shelves!*, available at: <https://www.animalsaustralia.org/features/10-supermarkets-can-cage-egg-cruelty.php>

⁵² 70 per cent of the existing cage facilities are assumed to have been built in 2007-08 in time for the implementation of the 2001 standards which were incorporated into the 4th Edition of Model Code of Practice (MCOP) for the Welfare of Animals – Domestic Poultry that required that all new cage systems must provide a floor space of 550 cm² per bird.) A further 15 per cent of the existing cage facilities are assumed to have been built after 2016, with the remaining 15 per cent assumed to have been built proportionately between these dates. The usable life of the cage infrastructure is assumed to be 20 years. Hence, cages built or refurbished in 2007-08 are assumed to be refurbished in 2027-28 (to the same 550cm² standard), with a cost of \$10.38/hen in real 2020 prices based on Tim Harding & Associates and Rivers (2017).

The draft Standards aim to address community concerns regarding poultry welfare by requiring producers to abide by good husbandry principles that meet the basic physiological and behavioural needs of poultry. This includes the consideration of:

- space [for poultry] to stand, lie and stretch their wings and limbs and perform normal patterns of behaviour;
- handling facilities, equipment and procedures that minimise stress to the poultry;
- procedures to minimise the risk of pain, injury or disease; and
- provision of appropriate treatment including humane killing if necessary.

The animal welfare requirements designated by the proposed standards must be met under law. The standards are intended to be clear, essential, and verifiable statements. However, not all issues are able to be well defined by scientific research or are able to be quantified. Science cannot always provide an objective or precise assessment of an animal's welfare and, consequently, where science is not available, the standards reflect a value judgment that has to be made in some circumstances. Standards use the word 'must'.

For example, one proposed standard is:

SA 2.1 — A person in charge must ensure poultry have reasonable access to adequate and appropriate feed and water.

On the other hand, the draft guidelines are intended to complement the standards and are the recommended practices to achieve desirable animal welfare outcomes. Non-compliance with one or more guidelines will not constitute an offence under law.

A parallel proposed guideline is:

GA2.1 — Feed supply for poultry should minimise harmful metabolic and nutritional conditions, and be based on:

- Age, body weight, and/or fat/body condition score
- Extra demands associated with growth and exercise
- Prevailing/predicted weather conditions

The guidelines aim to provide operational clarity as to how producers are to meet their legal obligations with regard to animal welfare and as prescribed by the Standards. They do not build upon or encompass the standards. Guidelines are not mandatory and do not impose costs.⁵³

Given the voluntary nature of the guidelines, they do not compel behaviour and do not impose a regulatory burden. Instead, they make information readily available to producers, and therefore have the potential to lower information costs — suggesting a \$0 or greater benefit to producers.

Proposed changes to the draft Standards and Guidelines

The proposed changes made by the panel to the draft Standards and Guidelines are listed below.

Proposed changes 1 and 2: Cage size and enrichment for layer hens

SB 1.1 – a person in charge must ensure the minimum height of all cages is 55 cm over the useable space.

SB 1.6 – a person in charge must provide layer hens with access to nest areas from point of lay.

SB 1.7 – a person in charge must provide a minimum of one single nest area for every 7 birds or 1m² nesting area for every 120 birds from point of lay.

⁵³ The position taken by the former Primary Industries Ministerial Council (PIMC), in May 2009, is that these guidelines will not be regulated (Consultation RIS, 2017, p 1).

- SB 1.8 – a person in charge must provide hens access to perches or platforms.
- SB 1.9 – a person in charge must ensure perch or platform space for hens is a minimum of 15 cm per laying hen.
- SB 1.10 – a person in charge must provide hens with access to a scratch area and/or claw shortening device as well as appropriate substrate for pecking, foraging, and scratching, unless the birds have access to an outdoor area.
- SB 1.11 – a person in charge must ensure that all caged laying chickens have:
- 750 cm² of useable space per bird if kept in a cage of 2 or more birds
 - 1000 cm² of useable space if a bird is kept in a single cage
- SB 1.12 – all cage-based housing facilities installed after 1 July 2022 must meet the requirements of standards SB1.1 and SB 1.6 to SB1.11.
- SB 1.13 – a person in charge of layer hens must ensure that any cage-based housing system meets the requirements of standards SB1.1. and SB1.6 to SB1.11:
- from 1 July 2032, if the cage system was installed before the close of 31 December 2011
 - from 1 July 2033, if the cage system was installed after 31 December 2011 but before the close of 31 December 2012
 - from 1 July 2034, if the cage system was installed after 31 December 2012 but before the close of 31 December 2013
 - from 1 July 2035, if the cage system was installed after 31 December 2013 but before the close of 31 December 2014
 - from 1 July 2036, if the cage system was installed after 31 December 2014.

Proposed change 3: Providing ducks with access to water

- SB 4.3 – a person in charge must provide all ducks access to water sufficient to stimulate preening and to allow birds to clean their eyes and nostrils.
- SB 4.4 – a person in charge must ensure facilities are provided to allow all breeder ducks reasonable access to dip their heads under water or showers are provided to allow ducks to wet preen, and to clean their eyes and nostrils. All facilities installed after 1 July 2022 must comply, and facilities constructed prior to this date must comply by 1 July 2032.

Proposed change 4: Fasting and non-fasting induced moulting

- SA 9.4 – a person in charge must ensure that non-fasting induced moulting is not practiced except in exceptional circumstances and where approved by the relevant minister or delegate.
- SA 9.5 – fasting induced moulting must not be practiced.

Proposed change 5: Beak trimming

- SA 9.15 – a person in charge must develop and implement strategies for managing injurious pecking that minimise the need for beak trimming.
- SA 9.16 – by 1 July 2025, beak trimming when undertaken in a hatchery, must be done using an infrared beam within 24 hours of take-off.
- SA 9.17 – by 1 July 2025, hot blade beak trimming must not be used except during outbreaks of injurious feather pecking and only by skilled operators using well maintained equipment and only under veterinary advice.
- SA 9.18 – a person must use appropriate tools and methods to trim the beaks of poultry.
- SA 9.19 – a person using beak trimming methods must ensure no more than 30% of the upper and lower beak is removed.

Proposed change 6: Lighting

SA 6.1 – a person in charge must ensure that the light intensity on poultry is adequate to allow poultry and equipment to be inspected and any problems to be identified.

SA 6.2 – by 1 July 2025, a person in charge must ensure that the light intensity during light periods for young poultry for the first 3 days after hatching is at least 20 lux at bird level.

SA 6.3 – by 1 July 2025, a person in charge must ensure that the light intensity for poultry is at least 10 Lux at bird level during light periods, except under veterinary supervision to control an outbreak of pecking and/or cannibalism for a limited period.

SA 6.4 – a person in charge must ensure poultry are not exposed to continuous light or darkness for any 24-hour period except for young birds raised under heat lamps or in brooders.

SA 6.5 – by 1 July 2025, a person in charge must ensure poultry are provided a minimum total of at least 6 hours of darkness within a 24-hour period with at least one uninterrupted period of darkness of at least 4 hours except:

- birds up to 7 days of age
- to prevent huddling or clumping behaviours during very hot weather
- poultry on the day of pick-up
- laying and breeder birds up to 16 weeks of age
- during a disease outbreak under veterinary supervision.

SA 6.6 – a person in charge must ensure chicks up to 7 days old have a minimum of 1 hour of continuous darkness for any 24-hour period, except for young birds raised under heat lamps or in brooders.

Proposed change 7: Ammonia monitoring

SA 7.3 – by 1 July 2025, a person in charge of poultry in sheds used for commercial production must monitor ammonia levels and ensure immediate corrective action is taken if ammonia levels exceed 15 ppm at bird level in sheds.

Proposed change 8: Enrichment for meat chickens

SB 2.7 – a person must ensure birds have enough space to stand, turn around and flap their wings.

SB 2.8 – a person must ensure space allowance is sufficient to allow all birds to be able to sit at the same time.

SB 3.6 – a person in charge must provide chicken breeders over 7 days of age, access to perches and/or platforms.

SB 3.8 – a person in charge must provide chicken breeders access to a scratch area and/or claw shortening device.

SB 3.10 – a person in charge must ensure that all caged chicken breeders have as a minimum:

- 750 cm² of acceptable space allowance per bird if kept in a cage of 2 or more birds
- 1000 cm² of acceptable space allowance if a bird is kept in a single cage

SB 3.11 – from 1 July 2032, a person in charge must not exceed a stocking density in ideal conditions indoors of 30 kg/m² (measured as bird density in the useable space) for pullets and adult birds (including roosters).

Proposed change 9: Firefighting equipment

SA 3.7 – by 1 July 2025, a person in charge must ensure firefighting equipment is available and maintained for all indoor housing systems.

Proposed change 10: Nest areas for all layer and breeder poultry

SB 1.6 – a person in charge must provide layer hens with access to nest areas from point of lay.

SB 1.7 – a person in charge must provide a minimum of one single nest area for every 7 birds or 1m² nesting area for every 120 birds from point of lay.

SB 1.8 – a person in charge must provide hens access to perches or platforms.

SB 1.9 – a person in charge must ensure perch or platforming space for hens is a minimum of 15 cm per laying hen.

SB 1.10 – a person in charge must provide hens with access to a scratch area and/or claw shortening device as well as appropriate substrate for pecking, foraging, and scratching, unless the birds have access to an outdoor area.

Proposed change 11: Free-range systems

SA 5.1 – a person in charge must ensure that poultry are adequately feathered before access to an outdoor area.

SA 5.2 – a person in charge must ensure poultry kept in housing with access to an outdoor area have ready access to the housing and shaded areas.

SA 5.3 – by 1 July 2025, a person in charge of poultry kept in housing with access to an outdoor area must encourage use of the outdoor range by providing:

- access to appropriately located shade and shelter from predators
- opportunities to perform foraging and scratching behaviours
- reasonable number and size of access points.

SA 5.4 – a person in charge must not keep poultry on land which has become contaminated with poisonous plants or chemicals which could compromise the health of poultry.

SA 5.5 – a person in charge must take reasonable actions to minimise access to poultry feed and drinking water by wild birds.

SA 5.6 – by 1 July 2032, a person in charge must ensure that poultry, other than ratites, are able to be confined to manage welfare risks to birds in the outdoor area. Confinement must comply with housing standards in Chapter 4, as well as stocking densities for the relevant species.

Proposed change 12: Additional requirements for pheasants, guinea fowl and turkeys

Pheasants

SB 10.2 – a person must ensure pheasants have enough space to stand, turn around and flap their wings.

SB 10.3 – a person must ensure space allowance is sufficient to allow all pheasants to be able to sit at the same time.

SB 10.4 – a person must provide pheasants access to perches and/or platforms.

Guinea Fowl

SB 7.3 – a person in charge must ensure that guinea fowl have access to suitable perches and/or platforms.

SB 7.4 – a person must ensure guinea fowl have enough space to stand, turn around and flap their wings.

SB 7.5 – a person must ensure space allowance is sufficient to allow all guinea fowl to be able to sit at the same time.

Turkeys

SB 13.4 – a person in charge must provide turkeys access to perches and/or platforms, as well as access to pecking objects and/or substrate from 14 days of age.

SB 13.5 – a person must ensure turkeys have enough space to stand, turn around and flap their wings.

SB 13.6 – a person must ensure space allowance is sufficient to allow all birds to be able to sit at the same time.

Proposed change 13: requirements for meat and laying chicken breeders

SB 1.14 – a person in charge must not exceed a stocking density in ideal conditions indoors of 30kg/m² (measured as bird density in the useable space) for rearing laying pullers and for managing adult laying chickens.

SB 3.11 – from 1 July 2032, a person in charge must not exceed a stocking density in ideal conditions indoors of 30 kg/m² (measured as bird density in the useable space) for pullets and adult birds (including roosters).

4.1.4 Option 4

Option 4 involves introducing the proposed Standards as compulsory and extending the phase out of conventional cages to 2046. This option was proposed by the Egg Industry as it deals with the most contentious issue raised in the CRIS, where any change in requirements will place significant costs on industry and consumers.

Conventional cages built prior to 1 July 2022 can continue to operate with the repair or replacement of cages until 2046, after which they must be replaced with cages that meet the requirements of the Standards.

That is, under the Standards layer hens must be provided:

- A minimum space allowance of 750cm² per hen which must be useable space.
- A minimum cage height of 55cm.
- A nest area, perches and scratch pads in cages plus foraging substrate.

Any new cage infrastructure introduced after 1 July 2022 must meet the requirements of the proposed Standards, and no phase in period will be provided.

Regulation impact analysis

5

This chapter explores the impacts of the proposed options and assesses the degree to which each option addresses the problems outlined in Chapter 2. This assessment is both qualitative (owing to the difficulties of analysing animal welfare benefits) and quantitative (where the data is available). The chapter also outlines the modelled costs of each option and any unintended consequences they may cause.

5.1 Assessing the options against the problems

Each of the potential options have been assessed against how well they address the underlying policy problems (see Chapter 2). Each option has been assessed qualitatively relative to the baseline, in which it is assumed that the policy problems remain unaddressed by regulation into the future. While some aspects of animal welfare, such as the use of cages in egg production, are being partly addressed by the market or already have been addressed, many other risks to animal welfare are likely to continue.

The options have been assessed based on:

- evidence they will positively affect the underlying problem;
- likelihood they will affect behaviour (particularly with regard to poultry producers); and
- rate of change expected — where positive change is preferred sooner rather than later.

These assessments are necessarily high-level given the difficulty in measuring and comparing the impact on animal welfare. They outline when a problem has been *substantially addressed*, *not at all addressed*, or *partly addressed* where there is reason why the option might not be fully effective. The assessment is not sensitive enough to compare Options 3 and 4, which are very similar in nature. A colour coding assessment method is utilised to indicate how each option alleviates the policy problem (● substantially addressed; ● partly addressed; ● not at all addressed). This assessment method is replicated in the summary table at the end of this section (**Error! Reference source not found.**).

5.1.1 Option 1

Under the baseline option, the MCOPs will be maintained, and no further changes to poultry-related regulation will be made.



Animal welfare

The animal welfare MCOPs will continue to exist as voluntary documents that provides a defence exemption against animal cruelty charges in certain jurisdictions. While poultry producers will improve some aspects of animal welfare voluntarily and will continue to do so in response to market pressures, some risks to animal welfare are not expected to be addressed under Option 1.

The risks to poultry welfare under the existing MCOPs and the estimated number of birds affected (obtained from the CRIS)⁵⁴ include:

- A lack of clear responsible for personnel in charge – affects all poultry.
- A lack of quantitative lighting standards – estimated to affect 19-million-layer hens⁵⁵ and 658 million meat chickens.⁵⁶
- A lack of environmental enrichment and reduced space allowance in cages – estimated to affect 11-million-layer hens.
- Unrestricted routine use of induced moulting – estimated to affect 2.9-million-layer hens and 6.4 million meat chicken breeders.⁵⁷
- Unrestricted routine use of hot blade beak trimming – estimated to affect 19 million layer hens.
- A lack of access to environmental water for ducks – estimated to affect 9 million ducks per annum
- High stocking densities – estimated to affect 2-million-layer hens and 16 million meat chickens
- Continued feed restriction of meat chicken breeders – estimated to affect 6.4 million breeders.

● **Uncertainty for the consumer, the community**

Conflicting and unclear animal welfare regulation (and conditions) may continue to create uncertainty amongst consumers about the animal welfare associated with their consumption (as discussed in section **Error! Reference source not found.**).

● **Lack of clarity in poultry welfare regulation**

The deficiencies in the current MCOP and the differences in application across jurisdictions creates uncertainty for industry. Further, the language used in the MCOPs is a key reason why uncertainty exists under the current arrangements (as discussed in section **Error! Reference source not found.**). These issues will not be resolved under Option 1.

● **Conflicting inter-jurisdictional animal welfare standards**

Industry would continue to experience the inconsistent application of the MCOPs across jurisdictions and state-based legislation. This leads to excess regulatory burden for some businesses due to an inability to operate efficient national quality assurance schemes and national training programs. For example, for jurisdictions who have banned cage egg production (ACT) or the building of new cage egg facilities (TAS), this has placed a regulatory burden on certain interjurisdictional egg producers, where in order to comply with different requirements, producers have had to vary their production methods across facilities, regardless of what operational process it has identified as maximising the benefits for the company.

⁵⁴ Animal Health Australia, 2017, Table 15.2, Table 33 and Appendix 16 and 17 of the Proposed Australian Animal Welfare Standards and Guidelines Poultry Consultation Regulatory Impact Statement, available at: <http://www.animalwelfarestandards.net.au/files/2015/07/Public-Cons-Version-Poultry-RIS-Nov-2017.pdf>

⁵⁵ NSW Department of Primary Industries, n.d., Egg production systems in Australia, available at <https://www.dpi.nsw.gov.au/animals-and-livestock/poultry-and-birds/poultry-planning-and-keeping/poultry-keeping-environment/egg-production-systems>.

⁵⁶ Australian Chicken Meat Foundation, 2020, Australian Industry Facts & Figures, available at <https://www.chicken.org.au/facts-and-figures/>.

⁵⁷ Australian Chicken Meat Federation, 2020, The Chicken Family Tree, available at <https://www.chicken.org.au/the-chicken-family-tree/>.

Inter-jurisdictional misalignment is a significant issue as the majority of the egg and chicken meat market is supplied by firms that operate in multiple jurisdictions. For example, Sunny Queen Australia and Alimfresh capture 39 per cent and 31 per cent of the egg production market share respectively and operate farms across several states in Australia. Inghams Group and Baiada Poultry show a similar situation in the poultry processing industry, with 27 per cent and 22 per cent of the market share respectively and operations across multiple jurisdictions.⁵⁸ Further discussion on the market share of the poultry sector is provided at section 2.1.

5.1.2 Option 2

Under Option 2 the proposed Standards will be introduced as a voluntary set of guidelines.



Animal welfare

The proposed Standards provide significantly improved animal welfare outcomes compared to the MCOPs. However, the voluntary nature of the standards may lead to inconsistent implementation and does not ensure improvements in animal welfare will be experienced across all jurisdictions or all poultry businesses.



Uncertainty for the consumer, the community and the supply chain

There will be no significant improvement to certainty for consumers about the treatment of poultry in the production of poultry goods if the standards are voluntary. Some products may be clearly labelled to indicate the producers' animal welfare initiatives, but the level of transparency in a producer's treatment of poultry during the production of secondary goods and services (such as pre-made cakes or restaurant meals) will likely remain low. This means that consumers may continue to unknowingly consume products which have been produced under circumstances where welfare practices are poor or low.



Lack of clarity in poultry welfare regulation

The Standards have been drafted to address many of the vagaries that are present in the current MCOPs. However, the voluntary nature of the Standards may lead to issues for industry from inconsistent application. For example, some producers may be pressured by peak bodies and/or state and territory governments to comply with the voluntary standards. This may lead to improved animal welfare for some birds but would likely worsen consumer uncertainty and lead to conflicting inter-jurisdictional animal welfare standards. Other producers, particularly those operating across multiple jurisdictions, may receive mixed advice regarding operation under the voluntary Standards. This could lead to confusion and competition issues between producers in different regions.



Conflicting inter-jurisdictional animal welfare standards

Excess burden from inter-jurisdictional issues will be partly addressed under this option. Some areas of the poultry industry may experience a reduction in the level of regulatory burden they face from the take-up of the voluntary Standards by their sector or relevant peak body. However, without uniform implementation across jurisdictions, excess regulatory burden will likely remain an issue and may lead to more inconsistency across jurisdictions, particularly if some jurisdictions decide to mandate the voluntary standards.

5.1.3 Option 3

Under Option 3 the proposed Standards will be mandatory once introduced.

⁵⁸ Data on poultry market share sourced from IBISWorld reports; Egg Farming in Australia (2021) and Poultry Processing in Australia (2020)

Animal welfare

Under this option, risks to animal welfare as defined in the policy problem will be substantially addressed. It is likely most jurisdictions will adopt the standards into legislation within a few years, leading to immediate animal welfare improvements for millions of meat chickens, ducks, turkeys and backyard poultry. If the phase in periods are adopted, outdoor ranges will be enriched not long after the standards are adopted into law and laying chickens housed in conventional cages will be moved to larger, furnished cages by 2036, although the vast majority will be in furnished cages before this date due to the current age of the infrastructure. Ultimately, the welfare of millions of laying hens will be improved by these standards if adopted as mandatory standards by all jurisdictions. The proposed Standards provide significantly improved animal welfare outcomes compared to the MCOPs by placing greater importance on the basic physiological and behavioural needs of poultry.

Uncertainty for the consumer, the community and the supply chain

By mandating the Standards, customers will have greater certainty that Australian producers adhere to higher animal welfare requirements, regardless of the poultry product they are consuming. This will include secondary goods and services produced with Australian poultry products, which is the market sector with the least transparency and presents the greatest risk to consumer uncertainty. This view is consistent with stakeholder views, including from animal welfare groups, poultry producers and associations.⁵⁹

Lack of clarity in poultry welfare regulation

By mandating the Standards, new requirements will apply uniformly to the poultry industry, and expectations of producers will be clear. Inconsistent implementation was a significant concern of major stakeholders consulted during the CRIS process, and a key reason why producers and poultry industry associations supported the implementation of the mandatory, rather than voluntary, Standards.⁶⁰ This option will eliminate industry's concern regarding inconsistent application of the Standards, which could affect industry competition between jurisdictions.

Conflicting inter-jurisdictional animal welfare standards

Excess burden from inter-jurisdictional misalignment will be substantially addressed under this option. By mandating the Standards, all Australian poultry producers will be required to implement changes necessary to meet the new obligations. This will include infrastructure upgrades for producers across the poultry industry, including upgrades related to stocking densities; availability of perches and/or platforms; and water for breeder ducks. Mandating the Standards should lead to a high level of consistency of implementation across jurisdictions, which will ensure that animal welfare standards are raised nationwide.

⁵⁹ Includes major stakeholders such as Animal Welfare League Queensland (m11), Inghams (m66, m67) and the Australian Turkey Federation (m81). In their feedback to the Consultation RIS, Inghams and ATF state that 'To have a legally enforceable minimum standard would make it easier for consumers to have confidence and trust in the poultry industry in terms of its animal welfare outcomes. Such trust and confidence will ensure that the industry is allowed to operate with minimum interference.'

⁶⁰ Most of the major stakeholders in the poultry industry supported the introduction of Option 3 as proposed in the CRIS. This included Egg Farmers of Australia, Victorian Farmers Federation, Commercial Egg Farmers of South Australia and Tasmania, Commercial Egg Producers Association of Western Australia, specialised breeding and racing groups, and many individual poultry producers. More information is available from the Public Consultation Report, on pages 24 to 28.

This will address current excess regulatory burden issues under the MCOPs. The consistent implementation of the Standards across jurisdictions should reduce regulatory burden caused by the inability to operate efficient national programs and schemes in the sector.

5.1.4 Option 4

Under Option 4 the proposed Standards will be mandatory and include the phasing out of conventional cages by 2046. This option was proposed by the egg industry to allow extended use of conventional cage infrastructure because provision of alternative housing for layer hens will place significant costs on producers and consumers.

Animal welfare

Animal welfare risk will be partly addressed under this option. The proposed Standards will be introduced as drafted with an extended phase out period allowing use of conventional cages until 2046. The Standards will impose requirements for new cage infrastructure from 1 July 2022, including obligations which increase usable space and cage furnishings for layer hens. However, any cages introduced before this date may be maintained and/or replaced until 2046, after which they must be replaced by infrastructure that meets the Standards. This means that layer hens may be housed in infrastructure below the Standards for an extended period (at least 10 years longer than the final phase in period for improved cage infrastructure under Option 3).

This option only relates to poultry housed in caged infrastructure, with the remaining Standards being applied and enforced in the sector as per Option 3. It should be noted that around Australia, approximately 10 million hens are housed in cages, which is more than half of all layer hens in the nation.⁶¹ Therefore a considerable number of poultry will remain at risk until all cages are replaced in 2046.

While the Standards will lift animal welfare across the poultry sector and there is a clear timeline outlining when conventional cages must be phased out, Option 4 will ultimately lead to the same result as Option 3 but over a longer-term horizon. As such, Option 4 is assessed to only partly address the animal welfare risks identified in this Decision RIS because it prolongs some of the issues.

Uncertainty for the consumer, the community and the supply chain

Consumer uncertainty will be partly addressed under Option 4 until 2046 when all cages will need to meet the requirements of the Standards.

Given many community stakeholders called for the immediate end to conventional caged egg production, some consumers will be unsatisfied by the prolonged phase out period prescribed under this option. While mandating the Standards will provide customers with more certainty that Australian producers adhere to higher animal welfare requirements for most poultry species, the extended phase-out of caged eggs until 2046, will still make it unclear to consumers whether secondary egg products have been produced under circumstances where animal welfare practices have followed the Standards.

Lack of clarity in poultry welfare regulation

By mandating the Standards, new requirements will apply uniformly across the Australian poultry sector. Although this option also includes the extended phase out of conventional cages by 2046, the Standards have been drafted to ensure that expectations of producers are clear. This option will

⁶¹ According to Egg Farmers of Australia in their Consultation RIS submission, *Around Australia, there are more than 19 million egg laying hens in 337 commercial egg farms. Approximately 10 million hens are housed in cages with the remainder in barn or free-range production.* P4

eliminate the issue of inconsistent application, which was a major concern for industry under the MCOPs.



Conflicting inter-jurisdictional animal welfare standards

Excess regulatory burden on industry will be substantially addressed under Option 4. The mandatory Standards will be applied across jurisdictions and industry will no longer experience the excess regulatory burden from the inconsistent implementation of the MCOP.

5.2 Quantifying impacts on animals of Option 3 and 4

There are millions of birds in Australia's agricultural system at any one time. However, the vast majority of these poultry raised in any one year are broiler chickens for meat production. Approximately 94 per cent of all birds raised each year are broiler chickens, about 3 per cent are layer and other chickens, while another 3 per cent are all other birds. Accordingly, measures which improve animal welfare for broiler chickens will impact the most birds.

The Standards have the potential to affect almost all birds in one way or another. Though as noted in section 2.2.1, the severity, probability and duration of each issue addressed by the Standards should also be considered — for example, a fire in a shed is relatively unlikely and has relatively short duration; however, has considerable severity. A more detailed assessment of the scale of impact of leaving animal welfare risks unaddressed is available in Table 2.4.

An indication of the number of birds affected each year by changes to the Standards (Option 2, 3 and 4) are given in **Table 5.1**.

Table 5.1 Quantum of birds affected by changes to the Standards

Proposed change	Change description	Relevant standards	Expected annual number of birds positively affected	Comment
Proposed change 1 + 2 (Option 3 phase out)	Cage size and enrichment for layer hens	SB1.1, SB1.6, SB1.7, SB1.8, SB1.9, SB1.10, SB1.11, SB1.12, SB1.13	5,929,737 layer chickens	
Proposed change 1 + 2 (Option 4 phase out)	Cage size and enrichment for layer hens	SB1.1, SB1.6, SB1.7, SB1.8, SB1.9, SB1.10, SB1.11, SB1.12, SB1.13	5,623,661 layer chickens	
Proposed change 3	Providing ducks with access to water	SB4.3, SB4.4	8,060,780 ducks	
Proposed change 4	Fasting and non-fasting induced moulting	SA9.4, SA9.5	<1,000,000 chickens	
Proposed change 5	Beak trimming	SA9.15, SA9.16, SA9.17, SA9.18, SA9.19	2,729,000 layer chickens, 690,000 broiler chickens and 60,000 turkeys	Around 191,000 layer chickens, 48,000 broiler chickens and 4,000 turkeys at risk of increased pecking
Proposed change 6	Lighting	SA6.1, SA6.2, SA6.3, SA6.4, SA6.5, SA6.6	5,887,737 layer chickens, 166,559,457 broiler	

Proposed change	Change description	Relevant standards	Expected annual number of birds positively affected	Comment
			chickens, 1,434,400 ducks and 4,543,642 turkeys	
Proposed change 7	Ammonia monitoring	SA7.3	119,446,718 layer chickens, broiler chickens, ducks and turkeys	
Proposed change 8	Enrichment for meat chickens	SB2.7, SB2.8, SB3.6, SB3.8, SB3.10, SB3.11	745,462,865 broiler chickens	
Proposed change 9	Firefighting equipment	SA3.7	1,873,371 layer chickens and 52,996,191 broiler chickens	
Proposed change 10	Nest areas for all layer and breeding poultry	SB1.6, SB1.7, SB1.8, SB1.9, SB1.10	237,167 layer chickens, 227,500 quails, 85,000 ducks, 15,510 turkeys, 20,000 other birds	
Proposed change 11	Free-range systems	SA5.1, SA5.2, SA5.3, SA5.4, SA5.5, SA5.6	10,450,280 layer chickens and 18,057,303 broiler chickens	
Proposed change 12	Additional requirements for pheasants, guinea fowl and turkeys	SB10.2, SB10.3, SB10.4, SB7.3, SB7.4, SB7.5, SB13.4, SB13.5, SB13.6	18,000 pheasants, 12,000 guinea fowl, and 705,000 turkeys	
Proposed change 13	Requirements for meat and laying chicken breeders	SB1.14, SB3.11	91,266 layer chickens and 738,427 broiler chickens	

Source: ACIL Allen

5.3 Quantifying the costs

This cost-benefit analysis (CBA) models the expected impacts of the options on the Australian poultry sector. Typical cost-benefit analysis includes quantified and monetized benefits; however this analysis only includes quantified and monetized costs. The proposed Standards will require the poultry industry to make investments, which are examined closely in this CBA. The main costs associated with each mandatory standard have been analysed individually, and then combined for each option where relevant.

Unlike other CBAs (where the monetised benefits of addressing a regulatory problem would be quantified) this CBA only focuses on the costs incurred by industry. This approach has been taken following careful consideration of the difficulties of quantifying the animal welfare benefits and the potential to produce misleading analysis.

The CBA is only one input into the assessment of a preferred option and the analysis should therefore be understood in the context of all the impacts, especially the degree to which each option addresses the policy problem underpinning this Decision RIS. A comprehensive discussion of other impacts and the unintended consequences of the options are provided in sections 5.3 and 5.4 below.

Quantified costs

This CBA has examined the impact of the options on various aspects of industry operations, including the following:

- Capital infrastructure costs, such as the cost of replacing cage infrastructure, installing perches, scratch pads, platforms, shade structures and troughs for ducks.
- Capital land costs, such as the cost of additional land to accommodate cages and barns with greater usable space.
- Capital equipment costs, such as firefighting equipment, and upgraded beak trimming equipment.
- Labour costs, such as costs associated with maintaining and removing substrate in furnished cages, planting trees and shrubs that provide shade to poultry while foraging.
- Ongoing material costs, such as costs of substrate and cage enrichment material.
- Other costs such as compliance costs.

A more detailed outline of the costs used in the CBA is provided at Appendix C.

5.3.2 Baseline analysis

The quantitative impacts of the policy options have been estimated by comparing their effects with the baseline scenario. The baseline is a projection of the future state of the world in the absence of any policy or regulatory change.

Under the baseline option, the poultry sector would continue to use the MCOP and no further changes to poultry welfare regulation will be made.

There is evidence to show that, even in the absence of regulatory change, the Australian market is shifting away from caged eggs due to increasing levels of consumer concern for poultry welfare. This has led industry players to move away from supplying or utilising caged eggs. According to a 2021 IBISWorld report, the major supermarket chains are increasingly phasing out cage eggs from their shelves.⁶² In addition, food-service establishments, such as Hungry Jack's, are increasingly switching to cage-free eggs on their menus. Consequently, cage eggs have declined as a share of industry revenue over the past five years. This trend is likely to continue with cage-free options becoming a larger part of the market share.

This existing trend away from caged egg production and toward other welfare promoting measures have been considered when conducting the CBA.

5.3.3 Net industry costs relative to baseline

Table 5.2 shows a summarised cost estimate for options 3 and 4 relative to the baseline (no change). Given the voluntary nature of the Standards under options 1 and 2, these options are not expected to generate large costs for industry.

The costs have been estimated with a discount of 3, 7 and 10 per cent which is consistent with best practice CBA. A detailed breakdown of costs for options 3 and 4 is provided at Appendix C.

⁶² IBISWorld, April 2021, AU INDUSTRY (ANZSIC) REPORT A0172: Egg Farming in Australia.

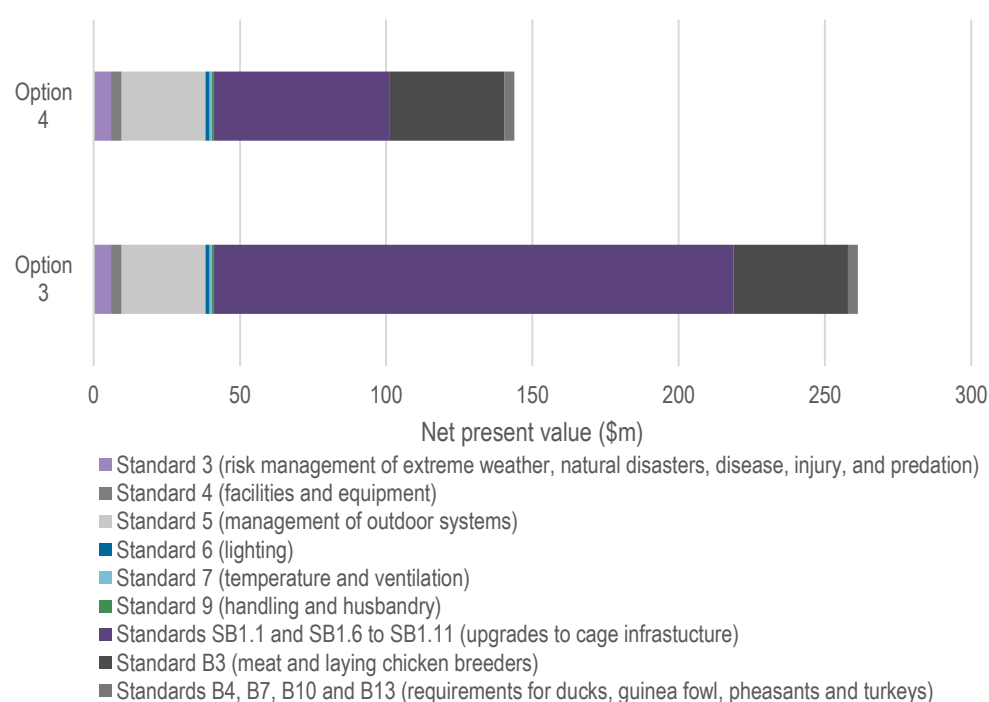
Table 5.2 Net industry costs relative to baseline

	Net industry impact (\$NPV millions) – 3% discount rate	Net industry impact (\$NPV millions) – 7% discount rate	Net industry impact (\$NPV millions) – 10% discount rate
Option 1	-	-	-
Option 2	-	-	-
Option 3	388	261	200
Option 4	262	144	101

Source: ACIL Allen

5.3.4 Breakdown of cost components of the mandatory standards under options 3 and 4

Figure 5.1 shows a breakdown of the costs under options 3 and 4, with a discount rate of 7 per cent.⁶³ The costs have been presented with the corresponding standard to show how each standard with a cost implication will affect industry.

Figure 5.1 Breakdown of cost components of the mandatory standards under options 3 and 4

Source: ACIL Allen

It is clear from Figure 5.1 that the upgrade requirements to cage infrastructure is the major cost component that sets Option 3 and 4 apart.

This was an expected outcome of the analysis, as these upgrades necessitate the large-scale replacement of major structures on egg farms. The CBA confirmed the magnitude of these costs; approximately \$178 million under Option 3.

⁶³ The discount rate of 7 per cent has been chosen for this figure as it is the rate recommended by the Office of Best Practice Regulation (OBPR) to be used as the 'central' discount rate. More information can be found through OBPR's [CBA Guidance Note](#).

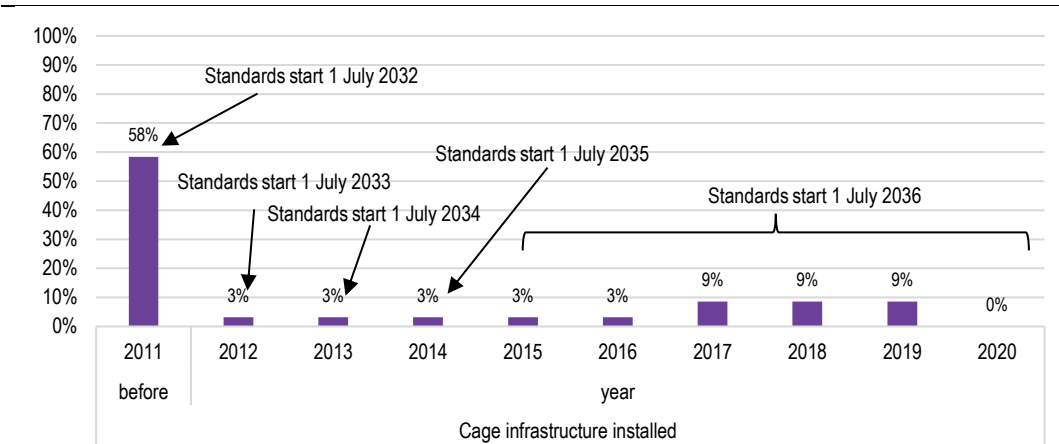
Cost implications of a prolonged phase out period

Figure 5.1 also demonstrates the cost savings for industry under Option 4, which provides an extended phase out period for conventional cages. As replacement costs incurred by caged egg producers are delayed until 2046, this results in considerably lower costs for industry (estimated at approximately \$117.5 million compared to Option 3 with a 7 per cent discount rate).

It should be noted that the staggered phase out period under Option 3 has also been designed with industry impacts in mind. Option 3 balances animal welfare risk and consumer expectations with the cost of immediate cage replacement by farmers. Compared to the introduction of the Standards with no phase out period, the specific phase out periods prescribed under SB1.13 are estimated to lead to a cost saving of \$112.5 million for industry — that is if Option 3 was introduced straight away, it would cost \$328 million, but would provide 15 more years of animal welfare and consumer benefits.

An estimated profile of layer cage infrastructure installed by year is summarised in **Figure 5.2**. Nearly 60 per cent of cage infrastructure was installed before 2011 in time for the 1 July 2008 standard implementation of MCOP requirements.

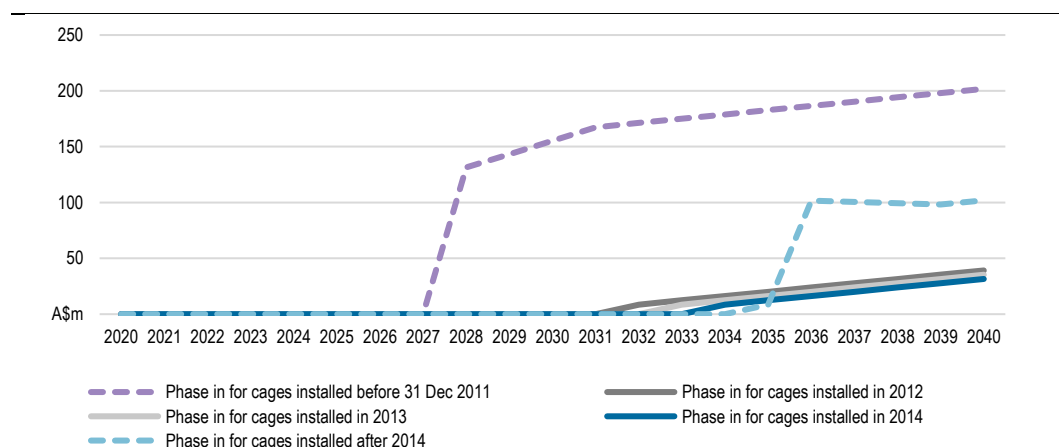
Figure 5.2 An indicative layer cage infrastructure by year under Option 3



Source: ACIL Allen estimate based on submissions and DAWE information

The cumulative net costs of SB1.13 are presented in Figure 5.3. The cumulative cost of the changes to producers who installed cages before December 2011 is \$202 million undiscounted. While the long-term cumulative cost of implementing SB1.13 is broadly the same to producers regardless of the age of their cage infrastructure, the time profile of the cages installed before 2011 is noticeably different. Economically, producers have an incentive to wait as long as possible before undertaking irreversible capital expenses — particularly if their existing cages still have usable operating life left.

Figure 5.3 Estimated cumulative net impact on caged layer production costs associated with SB1.13 standards (in 2021 dollars)



Note: All years are financial years ending June 30.

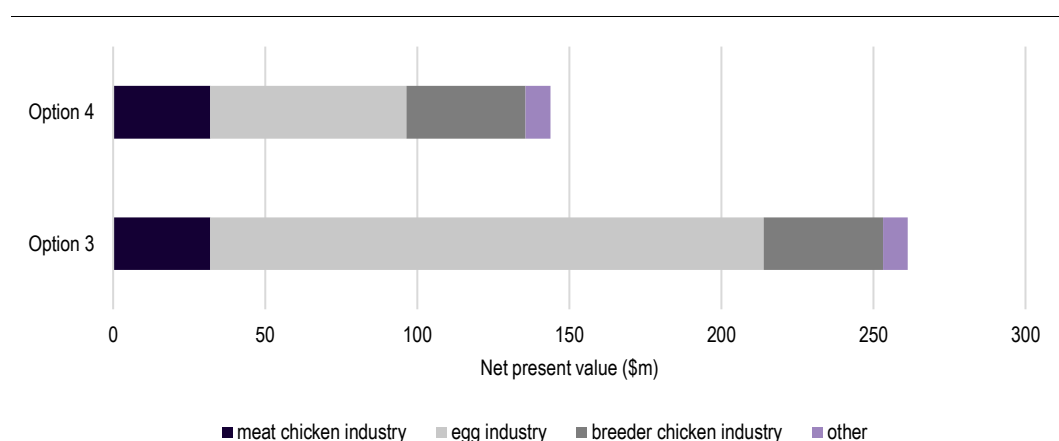
Source: ACIL Allen

The prolonged phase out period of conventional cages may lead to competition issues in the sector (discussed further below in section 0). These competition issues have not been modelled in this CBA.

5.3.5 Breakdown of the costs of the mandatory standards under Options 3 and 4 by industry

The implementation of the standards will substantially fall on chicken breeders and producers. Approximately 97 per cent of the cost of Option 3, and 95 per cent of the cost of Option 4 will be incurred by the chicken egg and chicken meat industries. Only \$8.17 million will be incurred by duck, quail, turkey and other non-chicken poultry producers. By far, the largest impact will be on the layer chicken industry through improvements to layer cages in SB1.1 to SB 1.11. A breakdown of cost per industry is given in **Figure 5.4**.

Figure 5.4 Breakdown of the costs of the mandatory standards under Option 3 and 4 by industry



Source: ACIL Allen

5.3.6 Understanding option costs against benefits

The costs presented are the aggregate costs across all poultry industries, and represent investment made — in part — years into the future. However, impacts are spread over thousands of producers, billions of animals and impact millions of consumers.

Given many poultry products are highly price-inelastic, it is reasonable to assume a large proportion of cost will ultimately be borne by consumers in terms of increased food prices.⁶⁴ Ultimately, the degree of cost passthrough will vary by industry, animal product, region and for each business.

As an example, of what costs will likely look like: the annual costs of Option 3 and Option 4 on the average egg consumer is in the order of \$1 per year — over and above the no-change (Option 1) scenario. The maximum additional cost for Option 3 is estimated at \$1.51 per consumer per year, while the maximum cost of Option 4 is estimated at \$0.91; with the costs in real terms decreasing over time.

Should these costs per consumer be commiserate or less than with the potential benefits for each option, there is a case for adopting these Options.

5.4 Other market impacts

Submissions to the CRIS identified other impacts that could result from the mandatory introduction of Standards. These other market impacts primarily relate to Options 3 and 4, which include mandatory Standards, but they are expected to be neutral or improve competition relative to the existing status quo, and suggest that Option 3 is preferred over Option 4 — though these impacts are small relative to overall costs of implementation and positive effects on animal welfare.

5.4.1 Effects on competition

Competition was a key consideration of many major submissions. There was strong support for national consistency in animal welfare standards as this would provide a level playing field for competition in the Australian poultry industry.

Stakeholders including the Australian Veterinary Poultry Association, Commercial Egg Producers Association of Western Australia, Cordina Chickens, Turi Foods and several individual submissions highlighted that inconsistency in the introduction of the standards would lead to a reduction of competition. Cordina Chickens provides an example in its submission:

If one state were to implement a very different maximum stocking density to other states, chicken producers could be put in a significant competitive advantage/disadvantage against producers from other states. For companies like us, who do not have chicken production operations in other states, 'importation' of poultry products from other states could lead to the loss of our market shares.

Competition was also discussed in the context of caged egg production. Egg producers and industry bodies believed that moving away from conventional cages would lead to Australian farmers becoming internationally uncompetitive. Egg Farmers of Australia noted that mandating an upgrade to furnished cages would limit competition and may create outcomes which are not proportional to the issue being addressed. Although Egg Farmers of Australia is not opposed to furnished cages and has stated that its members recognise the importance of improving their

⁶⁴ Eggs are often given as an example of highly cost-inelastic foodstuffs. That is, changes in price are unlikely to result in a change in demand. A 2010 meta-review of foodstuff price elasticities found eggs were the most price-inelastic category analysed. See Andreyeva, T., Long, M. W., & Brownell, K. D. (2010). The impact of food prices on consumption: a systematic review of research on the price elasticity of demand for food. *American journal of public health*, 100(2), 216–222. <https://doi.org/10.2105/AJPH.2008.151415>

farming practices, it noted that very few members would be able to afford to upgrade their cage infrastructure at this stage in the investment cycle. Egg Farmers of Australia also expressed the view that mandating furnished cages may force farmers out of the industry or place them in an untenable economic situation.

Given that all the options, except the status quo, will lead to improved alignment of regulation and fewer inconsistencies between states, the effect of Option 2, 3 and 4 would be to increase competition. The degree to which competition is increased is unknown.

Competition effects of a prolonged phase out period

The phase out of existing cage infrastructure under Options 3 and 4 has the potential to create an unequal playing field, where producers entering the market or investing in new cages will have to compete with producers who are able to use relatively less costly production. Under Option 3, this will occur in tranches over the next 15 years, with only a few producers having a competitive advantage by the end of the period. Under Option 4, some producers will maintain a competitive advantage for up to 25 years. This uneven playing field can be meaningful at a producer level, and if it occurs over a long timeframe, it can have undesirable effects on competition. The longer the phase-out period, the worse the overall impacts on competition. Accordingly, Option 3 is expected to have less negative impact on competition than Option 4.

5.4.2 Effects on small business

Feedback collected during the CRIS highlighted a range of stakeholder opinions about the impact of options on small businesses.

Egg Farmers of Australia and a majority of egg producers believed that the standards introduced as part of Option 3 would disproportionately affect small business. As context for the contribution of family sized egg farms in Australia, Egg Farmers of Australia stated that:

Egg farming in Australia is a family business with 98 per cent of egg farms family owned and operated. These family businesses contribute around \$1.8 billion to the national economy each year.

Industry associations including the Australian Veterinary Poultry Association and the Animal Welfare League Queensland (AWLQ) stated that the options would not disproportionately impact small business. This view was also shared by a number of public submissions. AWLQ stated that:

Small business should already have greater compliance with smaller production systems. Small free range farmers should benefit from Options D, E and G [now reflected in Option 3 and 4 of this Decision RIS] if they are already providing for the needs of birds to be in smaller groups with more space and support for better welfare.⁶⁵

Both Egg Farmers of Australia and Sunny Queen Australia argued that wholesale regulation applied uniformly to a sector is likely to disadvantage smaller producers more significantly than others. Implementation of requirements such as furnished cages had a large likelihood of pushing smaller farms out of the market, as the cost of upgrading infrastructure would disproportionately affect small operators.

However, most of the changes to the Standards apply on a variable basis — either in a housing unit or per shed basis, where most farms have multiple housing units and sheds. Only a few of the smallest farms are likely to have substantial incremental costs.

⁶⁵ Option D, E and G in the Consultation RIS covered 20-year phase out of cages, reduction in stocking densities, no routine hot blade and no routine second beak trimming.

5.5 Unintended consequences

Unintended consequences are an important consideration when implementing policy reform. A number of unintended consequences of implementing regulatory reform (i.e. Option 3 and 4) were raised by stakeholders including food security, biosecurity, legal standing and occupational health and safety issues. These additional unintended impacts could reduce the overall benefits realised from Option 3 and 4, however, they are anticipated to be negligible relative to implementation costs and positive impacts on animal welfare.

5.5.1 Food security

Stakeholders in the egg industry including Egg Farmers Australia, Pure Food Eggs and Libreri Farm Eggs commented on food security in their submission. These stakeholders noted that conventional cage farming systems offer the most predictable supply of eggs, and that phasing out these practices would create egg shortages and increase the price of protein.

One submitter with a family background in egg farming⁶⁶ noted that multiple egg production methods should be maintained to ensure the consistent supply of eggs to Australian consumers. The submission argued that free range production is more susceptible to flooding and contagion, hence highly productive conventional caged systems should be maintained to alleviate the need to import eggs when other systems are under stress.

Egg Farmers Australia provided the phasing out of conventional cages in New Zealand as a relevant case-study for Australia.

In 2012, new legislation required New Zealand egg farmers to transition to furnished cages within six years. Many smaller farmers exited the industry as a result of this change, with the remainder required to invest in new infrastructure. That investment has cost the industry up to \$150 million.

A 2021 IBISWorld report on the New Zealand egg market stated that the conventional cage ban is projected to result in a decline in egg production over the two years though 2020-21. According to the Ministry for Primary Industries (Manatu Ahu Matua), buildings and equipment to upgrade to colony cages could cost up to \$660,000 for small farms and up to \$8.5m for large farms in New Zealand. Some egg farmers have instead opted to exit the market, reducing national egg production. In particular, New Zealand went through a period of egg shortages at the start of 2019-20, which pushed up prices strongly.

5.5.2 Equity issues

Egg Farmers of Australia and egg producers supported the continued use of conventional cages and raised equity issues as an argument for maintaining conventional caged egg production.

For example, in its Consultation RIS submission, the Fremantle Egg Company noted that caged eggs are an important product that provides healthy meal options for low-income families. Egg Farmers of Australia referenced a 2016 study which found that:

there is a relationship between egg consumption and the price of alternative protein sources such as meat and it has been shown that specific low-income demographics are more likely to purchase larger quantities of eggs.

Equity issues were also raised by members of the public, who noted that eggs will be more expensive and that this would affect people on low incomes if conventional cages are phased out.⁶⁷

⁶⁶ Cheralyn Simpson, full submission available at [m42](#)

⁶⁷ As identified by the public consultation report, which highlights statements made in n16, n31, n35, n28, and n21 (p302).

Views included that the price premium for cage-free and free-range eggs were prohibitive for low-income families, and that current market arrangements should be maintained to allow people to make informed choices based on their circumstances. For example, ACIL Allen's modelling suggests that Option 3 and 4 raise the maximum annual cost per egg consumer by \$0.91 and \$1.51 respectively.

5.5.3 Biosecurity

The risks to biosecurity arising from a ban on conventional cages were raised in several 'new insight' submissions.⁶⁸ A summary of these views was provided in the public consultation report on page 302:

- *Diseases like Avian Influenza are a risk especially in free range farms. If cages are banned and AI breaks out, we could have an egg shortage (n2, n14, n46, n48).*
- *From the air, ground and elements, birds are at high risk of disease. If required, controlling a disease from spreading in free range is virtually impossible (n21).*
- *Sheds are controlled environments so limiting disease spread is easy (n21).*

Major submissions including Cordina Chicken, Australian Chicken Meat Federation and Turi Foods also highlighted the increased biosecurity risks in free range systems compared to caged egg production. However, views are conflicting. For example, the Department of Primary Industries and Regional Development WA still favoured the phasing out of caged egg production, stating that:

The advantages of housing for biosecurity and other health-related matters can be maintained while making provision for the behavioural needs of laying hens by phasing out conventional cages.

5.5.4 Legal standing

Unintended consequences of legal interpretations were noted in some submissions from stakeholders.

The Animal Welfare League Queensland stated that the confusing combination of 'must' and 'should' used in the current MCOP 'may have been to protect industry from prosecution for those aspects of each guideline with which most producers did not comply, if the state governments decided to create the 'must's as legislated Standards carrying a penalty'. That is, the vague nature of the MCOP may have, in some cases, protected industry from prosecution and acted as a safe harbour legal defence for producers.

Dr P Groves of the Poultry Research Foundation noted that vagueness could also lead to unintended consequence under the Standards if mandated. When responding to an earlier version of Standard SA8.3, regarding the use of litter, he noted that the language used was vague and the interpretation open to wide variation.

As a Standard, this leaves the 'person in charge' liable to prosecution. The Standard needs to be defined more precisely.

The use of the Standards and Guidelines as safe harbour protections, and the unintended consequences of vague wording have been carefully considered by the Independent Panel during this process. Clear definition of the proposed Standards, particularly if mandated under Option 3, is important to ensure industry certainty about regulatory changes. Care has been taken to ensure that the language of the latest Standards is clearly defined.

⁶⁸ The drafting team identified 48 submissions that provided 'new insight', or that provided an additional contribution to the consultation process beyond that in the 'short' submissions (Bray, H, 2018, Australian Animal Welfare Standards and Guidelines – Poultry, available at: <http://www.animalwelfarestandards.net.au/files/2015/07/Public-consultation-report-final-09072018.pdf>).

The Guidelines have also been drafted to ensure unintended consequences are minimised. Furthermore, the Guidelines are not mandatory and designed to be a guide for producers to implement best practice in their processes, and thus would not provide safe harbour protection.

5.6 Summary of impacts

ACIL Allen's assessment (as shown in **Table 5.3**^{Error! Reference source not found.}) suggests that the mandatory introduction of the proposed Standards (Option 3) is the preferred option given it most substantially addresses the policy problems.

The costs of each option are presented in aggregate, and as an example, the maximum annual costs to egg consumers. For each option, if the benefits of addressing the policy problems are greater than the estimated costs, and it meets the objectives of the policy, there is merit in adopting the approach. Although it is difficult to compare the benefits of each option (such as the scale of animal welfare improvement) against the monetised costs of implementation, the introduction of Option 3 is likely to lead to the greatest net benefit when considering the community, industry and animal welfare. However, Option 3 will also generate the highest costs (as shown in the table below). It will be a decision for Ministers to determine whether the industry and consumer costs of Option 3 are acceptable.

Table 5.3 Impacts of options

Option	Animal welfare risk	Consumer uncertainty	Lack of clarity in standards	Conflicting inter-jurisdictional standards	Option costs (\$m NPV, 7% DR)	Example maximum annual cost per egg consumer	Summary of other impacts
Assessment against policy problems				Option costs			
Option 1: Baseline option	●	●	●	●	\$0	\$0	-
Option 2: Voluntary Standards	●	●	●	●	\$0	\$0	May increase uncertainty in industry and for consumers
Option 3: Mandatory Standards	●	●	●	●	\$261	\$1.51	May lead to equity issues, and disproportionately affect small business
Option 4: Mandatory Standards w/ conventional cage phase out by 2046	●	●	●	●	\$144	\$0.91	Extends risks to animal welfare for caged birds. It may increase competition issues between those producers who are forced to compete for up to 25 years with those producers who can use existing, lower-cost cage.

Source: ACIL Allen

Note: The table includes an assessment of how each option alleviates the policy problem: ● substantially addressed; ● partly addressed; ● not at all addressed.

Note: The industry impacts are presented in millions of Australian dollars, and have been adjusted to reflect the Net Present Value (NPV) of the impact at a 7 per cent discount rate. This means that the costs have been adjusted to represent the value in today's dollars – future dollars must be discounted as the value of a dollar is greater today than at future points in time. For further discussion on NPV and discount rates, refer to [OBPR's CBA Guidance Note](#).

Implementation and review

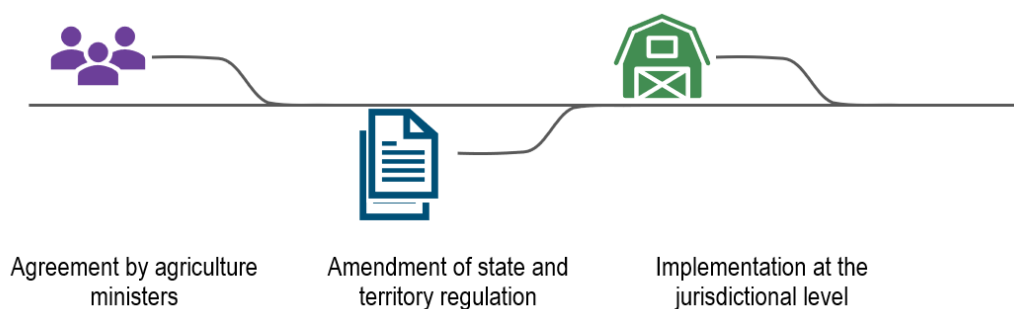
6

6.1 Implementation

If the Standards and Guidelines are endorsed by agriculture ministers for implementation, the Standards will then replace the existing MCOP and current jurisdictional requirements. Implementation will ultimately be a matter for each state and territory to determine. That is, the method of implementation is a matter for each state and territory according to the provisions of their own enabling legislation.

State Governments have not been engaged on the method of implementation for the purpose of this Decision RIS. However, the most likely method of implementation is via the adoption of the proposed Standards by regulations made under existing animal welfare legislation (see Figure 6.1). The proposed Standards and Guidelines would fit within existing policy and programs which support animal welfare more broadly.

Figure 6.1 Implementation process of the preferred option



Source: ACIL Allen

The cost of developing state and territory regulations required to adopt the Standards is likely to be relatively small. Advice from the states and territories as part of the development of the CRIS is that no incremental government enforcement costs would be incurred as a result of replacing the existing standards with the proposed Standards.

6.2 Evaluation and review strategy

The effectiveness of the Standards will be evaluated when they are next reviewed or in 10 years' time (whichever is sooner). Assessment will be conducted by the relevant government bodies under each jurisdiction, as well as the Department of Agriculture, Water and the Environment which will undertake a holistic review across the states.

Indicators should include the extent to which the standards have been:

- officially adopted by the various government jurisdictions;
- implemented by the poultry industries; and
- accepted by the Australian community.

To evaluate the success of the Standards, data on these indicators must be collected. This will involve a desktop review process as well as engagement with stakeholders across government, industry and the community.

To the extent that it is possible, future reviews of the poultry welfare standards should aim to assess, and where possible quantitatively measure improvements in poultry welfare to gauge their cost-effectiveness. Advances in the scientific understanding of animal welfare will be an important consideration for future reviews, to inform policy decisions and assist government to design policy that is fit for purpose.

Conclusion

7

The purpose of this Decision Regulation Impact Statement (Decision RIS) is to examine the current regulatory issues that exist in Australia's poultry industry, the need for government intervention, and to evaluate policy options for managing and minimising risks to the welfare of poultry reared or bred in captivity. The RIS provides context on the industry sector and the current regulatory setting; identifying the policy problems and the reasons for government intervention; and analysing the policy options quantitatively and qualitatively against the baseline option.

The Decision RIS considered three options, in addition to an option of leaving the existing MCOP unchanged (Option 1). Option 2 considered the introduction of the proposed Standards and Guidelines as a voluntary set of guidelines. Option 3 considered the introduction of the proposed Standards as compulsory and Guidelines as a voluntary set of guidelines. Option 4 considered the introduction of the proposed Standards as compulsory and Guidelines as a voluntary, with an extended phase out period allowing use of conventional cages until 2046.

This Decision RIS identified that the introduction of the proposed Standards as compulsory and Guidelines as a voluntary (Option 3) put forward by the Independent Panel, is the best at addressing the problems of animal welfare and community and industry certainty, while considering the cost to industry and ultimately end consumers. Option 4 would also address the problems at a lower cost, however it prolongs many of the problems associated with the MCOP and creates other unintended impacts.

This recommendation is based on the available qualitative and quantitative information on the issues in the industry sector and of the proposed options. This includes:

- an examination of the context and issues in the sector;
- the careful consideration of stakeholder feedback to the Consultation RIS process from poultry producers, peak bodies, consumers, academics, legal experts and government agencies;
- an assessment of the degree to which each of the options address the problems, including risks to animal welfare, relative to the existing MCOPs; and
- the analysis of the costs to industry from the implementation of mandatory standards.

Limits in the scientific understanding of animal welfare present some difficulty in quantifying the animal welfare benefits of enforcing the proposed mandatory Standards. However, careful consideration of the available scientific evidence and the significant number of stakeholder submissions provided some insight into the severity and duration of risks to animal welfare. This allowed for the examination of each option against current issues which exist in the sector, including animal welfare risks; consumer and industry uncertainty; and excessive regulatory burden on the sector.

Through the introduction of a mandatory set of Standards, it is envisaged that Option 3 will address the issues of industry and community certainty, while improving animal welfare and limiting unnecessary regulatory burden.

Implementation of the Standards will be a matter for state and territory governments. Evaluation over time will be critical to ensure that the Standards have been successfully adopted across jurisdictions. Evaluation will also consider the effects of the Standards on the community and industry over time and will be informed by future advances in the scientific understanding of animal welfare. Future consultation across industry, the community and governments will be needed to ensure that reform achieves the intended policy outcome and remains fit for purpose.

Appendices

Stakeholder responses to the Consultation RIS

A

The response to the CRIS in 2017 was overwhelming, with over 167,000 submissions and over 200 substantial submissions provided by stakeholders in response to the consultation process. These responses were used to clarify the understanding of the problem, the proposed policy options, and the regulatory impact analysis provided in this report. How stakeholder consultation has informed the Decision RIS is outlined below.

A.1 Consultation RIS

A.1.1 Process and submissions received

Public consultation was conducted over a 90-day period between 27 November 2017 and 26 February 2018, which was later extended till 12 March 2018 at the request of some organisations which prepared substantial submissions.⁶⁹

An estimated 167,000 emails and 2,000 hard copy submissions were received. Due to the volume of submissions, AHA (the original managers of the Consultation RIS process) applied a random sampling method to select submissions for further review. Part of this process included classifying the sampled submissions into three categories:

- Short submissions (the majority of submissions) (n=4,995);
- Extended or 'new insight' submissions (n=45); and
- Substantive submissions from major organisations/stakeholder groups (n=209) (refer to Table A.1).

Table A.1 Breakdown of substantive submissions by stakeholder group

Stakeholder group	Number of substantive submissions
Industry associations or peak bodies	11
Egg producers	38
Chicken or turkey meat producers	14
Other poultry producers	2
Animal welfare organisations	17
Legal organisations	10
Government departments	3
Members of (state) parliament	9
Exhibition poultry organisations or owners	29

⁶⁹ Bray, H., 2018, Australian Animal Welfare Standards and Guidelines – Poultry – Independent Public Consultation Report, p 2 and p 9. Available at: <http://www.animalwelfarestandards.net.au/files/2015/07/Public-consultation-report-final-09072018.pdf>

Stakeholder group	Number of substantive submissions
Racing pigeon organisations	6
Interested community members	52
Other organisations/individuals	7
<i>Source: Bray, 2018</i>	

A.1.2 Summary of stakeholder submissions

Following the public consultation process and the selection of the submissions through AHA's sampling process an independent public consultation consultant examined and summarised the substantive submissions (n=209). The consultant developed high-level summaries of the extended and short submissions. This summary report (Bray, 2018) provides a comprehensive analysis of the submissions received that were relevant to the Consultation RIS's scope.

The sheer number of submissions (over 167,000) showed the level of interest in and concern about poultry welfare amongst the community. One stakeholder (RSPCA) even noted that the response represented one of the largest community responses to an animal welfare consultation process ever seen in Australia.⁷⁰

The summary report found there were significant differences in stakeholder views about the introduction of proposed Standards and Guidelines. Key differences focused on:

- evaluation and provision of a 'life worth living' for Australian poultry in production systems. Debate centred around 'protection' from harmful factors through the use of conventional cages being 'better for hens' versus the ability to express natural behaviours in alternative systems with potential other risks to animal health and welfare; and
- balancing the welfare needs of poultry with the needs of the community, and particularly balancing community support for changing production practices with the projected costs of industry change.⁷¹

There were also issues common to many submissions which have been presented in Box A.1.

⁷⁰ Department of Primary Industries, available at: https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0019/822403/Report-to-NSW-DPI-on-poultry-welfare-standards-and-guidelines.pdf

⁷¹ Bray, H, 2018, Australian Animal Welfare Standards and Guidelines – Poultry, p21, available at: <http://www.animalwelfarestandards.net.au/files/2015/07/Public-consultation-report-final-09072018.pdf>.

Box A.1 Main themes of stakeholder submissions

The main themes across submissions were:

- The use of cages, specifically conventional cages for layer hens and meat and layer chicken breeders. The overwhelming majority of submissions mentioned this particular issue, while some drew a distinction between conventional and furnished cages.
- Beak trimming and other painful procedures.
- Humane killing and slaughtering procedures, including procedures for dealing with male layer chicks.
- The use of limited feeding strategies such as induced moulting for layer hens and alternate-day or restricted feeding practices for meat breeders.
- Rapid growth of meat chickens.
- Stocking densities.
- Lighting for housed poultry.
- Water for ducks.
- Issues with the development of the Consultation RIS.
- Issues with the proposed standards and guidelines.

The main criticisms of the development of the Consultation RIS and the proposed standards and guidelines were:

- the lack of consideration of the scientific literature
- an absence of independent review
- perceived collusion between government and industry.

Source: Bray, 2018, p 13.

To address the concerns with the Standards and Guidelines, the Independent Poultry Welfare Panel (Independent Panel) sought to settle the key welfare issues identified in the CRIS and public consultation and make other changes in the draft Standards to improve readability, consistency, and align with the values and expectations widely shared by the Australian community. The panel sought economic advice on 11 potential changes before finalising the Standards in preparation for further targeted stakeholder consultation and a Decision RIS.

A.1 Phasing out conventional cages

A.1.1 Opposition to conventional cages

The overwhelming majority of the short submissions called for a ban or phase out of conventional cages, using the term 'battery' cage. These included submissions by, or featuring, children. These submissions stated that housing hens in cages was cruel or did not support good animal welfare due to limiting natural behaviours.

Major submissions from welfare and legal organisations and the majority of submissions from members of parliament and the public also supported a ban or phase out of conventional cages. Welfare organisations provided detailed submissions (e.g. the RSPCA) with extensive reviews of scientific literature to support the phasing out of battery cages, in particular the recent Farmed Bird Welfare Science Review (FBWSR) by Nicol et al. (2017) commissioned by the Department of Economic Development, Jobs, Transport and Resources, Victoria, and which the Drafting Group was encouraged to review.

Submissions calling for a ban or phase out of conventional cages argued that they were unable to support the wellbeing of birds; evidence was presented that birds have higher incidences of injuries and diseases and demonstrate frustration due to being unable to express innate behaviours.

There was disagreement within these submissions, however, as to the role of furnished cages, with some submissions arguing that furnished cages allow for some expression of innate behaviours without the negative impacts on wellbeing that may be associated with outdoor systems. These submissions also expressed disappointment that furnished cages had not been expressly considered within the Standards and Guidelines (see, for example submission m46⁷²). Other submissions argued that a 'cage was still a cage' and that the limitations on innate behaviours would have a negative impact on wellbeing.

Submissions calling for a ban or phase out of conventional cages noted that they had been banned in several other locales, such as the EU, New Zealand, and some states of the USA. They also noted that global food companies were shifting to non-cage eggs.

Strong community and consumer support for non-cage eggs was also presented as evidence in support of phasing out or banning cages. A survey undertaken by RSPCA where 80% of Australians indicated support for banning cages was frequently cited, as were sales figures highlighting an increasing market share for non-cage eggs.

There was support for Option D of the CRIS within the submissions, although most indicated that their support was based on the phase out of conventional cages occurring within 10 years rather than 20 and without the option of furnished cages.

A.1.2 Support for conventional cages

There was strong support among most egg producers and industry associations for continued use of conventional cages. These submissions also included scientific evidence that the health and welfare of birds kept in cages was superior to that in non-caged systems. Several submissions suggested that animal welfare groups were influencing community perceptions by using images of production systems that were out of date and that education about current conventional cage systems was important to ensure their ongoing use in egg production.

These submissions also argued that cage eggs were an affordable source of protein for low-income families and that continued sales of cage eggs suggest that there is strong demand for them. They argued that it was important to maintain consumer choice. They also argued that cage eggs were safer.

These submissions also noted the projected costs to industry and individual producers who had already made significant investments in improving animal welfare in recent years. They said that removing cages would cause a severe financial burden that will affect farmer wellbeing. Hence there was strong support among producers and industry associations for Option C of the CRIS.

A.1.3 Related options in the Consultation RIS

Option D: vary the proposed standards (option C) to phase out conventional cages for chicken layers over 10 or 20 years in favour of alternative systems 'typical' free range, barn/aviary or furnished cages (which include a nest, a perch, and space to forage).

A.1.4 Related 'policy problem' identified in the Consultation RIS

Lack of freedom of poultry to express innate behaviours; Inadequate space allowances for poultry (stocking density); lack of perches, nests and litter for layer hens (production systems). These problems were addressed in the final standards by:

⁷² See http://www.animalwelfarestandards.net.au/files/2015/07/m46_George-Arzey.pdf. Substantial submissions to the Consultation RIS can be viewed at <http://www.animalwelfarestandards.net.au/poultry/poultry-submissions/>.

Increasing the minimum space allowance for caged layer hens from the current 550cm² per hen, to 750cm² per hen and increasing the minimum cage height to 55cm over the useable area (see SB1.1, SB1.11 – SB1.13).

Providing perches, nest areas and scratch pads to all caged layer hens (Note: the floor area of nest areas and beneath perches would not be considered part of the useable 750cm² space allowance proposed in the previous option) (See SB1.6 – SB1.10). Scientific evidence shows that there is an animal welfare benefit from increasing floor space and cage height beyond current prescriptions to allow for display of natural behaviours. A minimum cage height of 55cm and minimum floor space of 750cm² allows this benefit to be achieved. There is clear animal welfare science on the strength of motivation displayed by hens attempting to access nesting areas, with perches and scratch pads also providing animal health and welfare improvements. This is in line with international jurisdictions who have moved away from conventional cages such as the UK, EU and New Zealand.

A.2 Beak trimming and other painful practices

As with the use of conventional cages, there were differences of opinion with respect to beak trimming and other painful procedures. In addition to the Standards and Guidelines, reference to these procedures was also made in the CRIS, especially in association with Option G which proposed banning these procedures. The short public submissions showed support for this option.

A.2.1 Painful practices

Beak trimming

Most of the public and welfare submissions called for a ban on beak-trimming, using the term debeaking, and some submissions describing it as mutilation. These submissions argued that alternative methods to manage feather pecking should be used, such as lowering stocking densities, environmental enrichment, providing litter, appropriate feeding and appropriate genetic selection. These submissions also called for a ban on second beak trimming.

Some submissions supported the use of beak trimming to prevent feather-pecking and cannibalism and provided technical information on beak trimming. For example, submission m20 by Dr Phil Glatz and Geof Runge recommended that there be separate standards/guidelines for hot blade and infrared beak trimming and provided examples of 'best practice'. Submissions from the Australian Veterinary Association and the Australasian Veterinary Poultry Association also supported the inclusion of the hot blade method.

Most submissions supported beak trimming with advice from veterinarians, or undertaken by them for therapeutic reasons, and with use of anaesthesia and pain relief. This issue also received significant attention within the short submissions. Some submissions only supported the banning of second beak trimming.

Castration and devoicing

Submissions generally called for these procedures to be banned. Both welfare groups and veterinary groups supported their ban for commercial poultry.

Pinioning

Welfare groups and public submissions generally supported a ban of pinioning.

Veterinary groups, namely the AVA and AVPA noted that pinioning may be justified for pheasants on welfare grounds. Some exhibition poultry submissions supported the use of pinioning for waterfowl that could potentially interbreed with wild birds.

Dubbing and desnooding

Welfare and public submissions supported a ban on dubbing and desnooding for cosmetic purposes, and suggested that alternative methods be used to reduce the risk of injury, especially in turkeys.

There were a large number of submissions from exhibition poultry breeders which were almost unanimously (with one exception) in favour of dubbing, stating that it was justified on welfare grounds as it reduces the surface area of skin prone to infections. They also stated that dubbing on day-old chicks was not feasible and should be done up to 16 weeks of age.

Toe trimming/markings

Some submissions were opposed to toe trimming, however there were some submissions that suggested it improved the welfare of turkeys by preventing back scratching. Toe punching is also used by some exhibition breeders for identification purposes.

Surgical procedures

Exhibition poultry breeders requested clarification of 'surgical procedures'. They also noted that there is no registered product in Australia for pain relief for poultry.

A.2.2 Related options in the Consultation RIS

Option G: vary the proposed standards (option C) to ban castration, pinioning and devoicing, hot blade beak trimming at hatcheries, and routine second beak trim – unless there are exceptional circumstances (hot blade permitted in this circumstance).

A.2.3 Related 'policy problem' identified in the Consultation RIS

Need for restrictions on routine beak trimming. Need for restrictions on painful husbandry procedures.

These problems were addressed in the final standards by:

- Ceasing the use of hot blade beak trimming at hatcheries, with hot blade beak trimming only able to be used on-farm for outbreaks of injurious feather pecking and only under veterinary advice (SA9.15 – SA9.19).
- Restricting the painful husbandry procedures of pinioning, castration and devoicing to veterinarians only. Restricting the procedures of desnooding, dubbing, despulling, web marking and toe trimming to day old-hatchings selected as potential breeders, and not for cosmetic purposes (SA9.15 - SA9.19).

With the availability of alternative technology to hot blade beak trimming, it was considered that hot blade trimming should only be used as a last resort to prevent on-farm feather pecking from escalating to cannibalism. As there are no registered products in Australia for pain relief in poultry, it wasn't possible to mandate pain relief to be used during painful husbandry procedures, however if a suitable product becomes available on a commercial basis, there are provisions in the standards for this eventuality (see SA9.11).

A.3 Stocking densities

There was a difference of opinion between the submissions about the appropriate stocking densities for poultry in different production systems. In addition to the proposed Standards and Guidelines, reference to stocking density was made in Option E of the Consultation RIS.

Welfare and public submissions supported decreasing stocking densities for all species so that each individual bird has enough room to move and express innate behaviours. The RSPCA provided a number of publications, including the FBWSR, as evidence supporting the argument that reduction in stocking density improves welfare.

However, industry associations stated that the science on the issue is contested or unclear; the AgriFutures Australia Chicken Meat Advisory Panel (m37) cited a recent AgriFutures review that states that other factors take precedence or interact with density to influence welfare.

A.3.1 Related options in the Consultation RIS

Option E: vary the proposed standards (option C) to reduce maximum stocking densities in barns or sheds for non-cage layer hens to 9 birds per m² and meat chickens 30kg/m².

A.3.2 Related 'policy problem' identified in the Consultation RIS

Inadequate space allowances for poultry (stocking density)

This problem was addressed in the final standards by:

- Increasing the minimum space allowance for caged layer hens from the current 550cm² per hen, to 750cm² per hen and increasing the minimum cage height to 55cm over the useable area (see SB1.1, SB1.11 – SB1.13).
- Ensuring a maximum stocking density for layer pullets and breeder pullets (meat and layer) and layer birds and adult breeder birds (meat and layer chickens, including roosters) of 30kg/m² indoors in the useable space, with a phase in period of 10 years to 1 July 2032 (SB1.14 and SB3.11).

Scientific evidence shows that there is an animal welfare benefit from increasing floor space and cage height beyond current prescriptions to allow for display of natural behaviours. A minimum cage height of 55cm and minimum floor space of 750cm² allows this benefit to be achieved. The maximum stocking density of layer pullets, breeder pullets and layer birds and adult breeder birds is a decrease from current industry practice, and due to the impact on the supply of progeny animals from the breeder birds, a phase in period was introduced to allow industry to adapt to the new standards.

A.4 Induced moulting and limited access to food and water

Although this heading covers two practises involving restricted feeding of two distinct populations of birds (i.e. induced moulting in laying hens – in which hens at the end of a lay cycle are induced to moult and then come back into lay for the next cycle; and alternate day feeding for meat chicken breeders to control weight), many submissions referred to both practices together. There was strong opposition to induced moulting and 'skip-a-day' feeding from welfare groups and the public, who said within the submissions that deliberately withdrawing food and water was cruel and posed a welfare risk to poultry as they experience hunger and frustration. Meat chicken breeders in particular were described as having a 'high metabolic rate' and appetite and so alternate day feeding was felt by some submitters to be inhumane. Submissions also noted that forced moulting was reportedly uncommon in Australia, that it was banned in other locales, and that food companies were moving to eliminate the practice from their supply chains. Submissions argued that poultry should have access to food and water at all times.

Conversely alternate day feeding was seen by producers as an important tool to control weight in meat chicken breeders and avoid health issues from being overweight. The APVA recommended the use of the term 'alternate day feeding' as opposed to skip-a-day feeding within the Standards and Guidelines and commented that the glossary definition be changed to reflect that it applies to meat breeder chickens and not meat chickens.

A.4.1 Related 'policy problem' identified in the Consultation RIS

Need to restrict routine use of induced moulting.

A.4.2 Related options in the Consultation RIS

Option C: adopt the proposed standards as drafted.

A.4.3 Related 'policy problem' identified in the Consultation RIS

Routine use of induced moulting in layer hens. Alternate day feeding in meat breeder chickens.

This problem was addressed in the final standards by:

- prohibiting the use of fasting induced moulting and restricting non-fasting induced moulting for layer hens to only be used under exceptional circumstances and only when approved by the relevant state or territory minister or delegate (e.g. to maintain egg supply during a crisis) (see SA9.4 and SA9.5).

Induced moulting is still able to be used under the final standards, but only during exceptional circumstances where egg supply is at risk and fasting induced moulting, the more significant risk to animal welfare, is now prohibited. Alternate day feeding is still able to be used for meat breeders, as there are welfare risks associated with feeding meat breeder birds ad libitum due to their genetics.

A.5 Lighting

A number of submissions raised the issue of lighting for housed poultry. Public, welfare, and legal submissions called for increased light intensity for housed birds from 5 lux to at least 10 lux for most species/types and ages of birds, particularly meat birds. Similarly, these submissions also tended to call for an increased duration of the minimum dark period from 4 hours to 8 hours. However, industry submissions noted that reducing light intensity was an important tool for managing feather pecking in turkeys and breeder birds. In addition, several submissions suggested (with supporting evidence) that different lighting regimes with more than one dark period in 24 hours had been shown to improve welfare.

A.5.1 Related 'policy problem' identified in the Consultation RIS

Lack of quantitative lighting standards.

A.5.2 Related options in the Consultation RIS

Option C: adopt the proposed standards as drafted.

A.5.3 Related 'policy problem' identified in the Consultation RIS

Lack of quantitative lighting standards.

This problem was addressed in the final standards by:

- mandating minimum lighting provision of 10 lux, and minimum dark periods of 6 hours per day with at least one uninterrupted period of darkness of 4 hours with some exceptions (SA6.1 – SA6.6).

There is limited research available on lighting regimes under Australian circumstances. As a result, it was difficult to determine the ideal lighting schedule (lux and photoperiod) for poultry welfare. The resulting standards reflect areas of scientific consensus to ensure harm to animal welfare is minimised.

A.6 Rapid growth of meat birds

Welfare and public submissions expressed concern about the rapid growth rates of meat birds and advocated the use of slower-growing breeds. The submissions argued that this would alleviate health problems associated with rapid growth, and the need for feed restriction. RSPCA Australia recommended that standards, or at the very least guidelines, be introduced to place limits on the growth rates of meat chickens.

A.6.1 Related 'policy problem' identified in the Consultation RIS

None.

A.6.2 Related options in the Consultation RIS

None – there were no provisions in the consultation draft Standards and Guidelines and this was not part of the CRIS proposal.

A.6.3 Related 'policy problem' identified in the Consultation RIS

Rapid growth of meat chickens due to genetics and husbandry.

Meat chickens have become the most efficient livestock animal over the past several decades, with superior growth rates and feed conversion. These growth rates are a result of genetic advancements for productivity and mean that meat chickens reach slaughter weight at 30-60 days of age, even though they do not reach sexual maturity until around 120 days of age. To slow down growth rates for meat breeder birds, feed restriction is commonly used. There are negative welfare implications associated with feed restriction, but there are also negative welfare implications associated with unrestricted growth in breeder birds. This Catch-22 arises from genetic selection purely for production, and with almost all meat chickens arising from imported stock and genetics, this problem affects all countries raising commercial meat chickens. The lack of regulatory solutions that can be employed within Australia means feed restriction will continue to be used as a tool to control growth rates in breeder birds, although industry is encouraged to explore alternative solutions like slower-growing genetics.

A.7 Water for ducks

There was strong support within the public submissions (including the short submissions) as well as within the submissions from welfare groups for the provision of water for ducks to be able to submerge their heads and swim. However, it was acknowledged by the AVPA and others that providing ducks with water to wet their heads and preen may lead to contaminated water and wet litter which may in turn contribute to disease. The development of alternative systems that meet the needs of ducks without increasing the risk of disease was advocated in some submissions.

A.7.1 Related 'policy problem' identified in the Consultation RIS

Access to water for ducks.

A.7.2 Related options in the Consultation RIS

Option C: adopt the proposed standards as drafted. The proposed standards included mandating misting systems for ducks.

A.7.3 Related 'policy problem' identified in the Consultation RIS

Access to water for ducks.

This problem was addressed in the final standards by:

- Ensuring all ducks (breeders, meat and layer) have access to water sufficient to stimulate preening and allow birds to clean their eyes and nostrils (SB4.3).
- Ensuring all breeder ducks have access to facilities that allow them to dip their head under water or showers that facilitate wet preening. A phase in period of 10 years applies (SB4.4).

The infrastructure changes required to enable all ducks to wet preen by either dipping their head under water (e.g. troughs) or showering would be significant, as meat ducks are currently raised in similar sheds to meat chickens which do not contain in-shed drainage. Nor do they have facilities to treat water and effluent as would be required by environmental regulations. An outcomes-based standard for meat and layer ducks was considered more appropriate, as this would allow industry to develop options which overcome these challenges in a way which does not have perverse impacts on animal welfare.

Standards development timeline

B

2009

A business plan was agreed for the development of Australian Animal Welfare Standards and Guidelines under the then Primary Industries Standing Committee (PISC), as part of the Australian Animal Welfare Strategy (AAWS).

The Development of Australian Standards and Guidelines for the Welfare of Livestock Business Plan (2009) outlined the objective as:

... the national livestock welfare standards, with complementary guidelines, provide welfare outcomes that meet community and international expectations and reflect Australia's position as a leader in modern, sustainable and scientifically-based welfare practice'.

2009-2013

Australian Animal Welfare Standards and Guidelines for a number of industry sectors were finalised, each with a state or territory government agency leading the process, with Animal Health Australia as project manager.

2013

The Animal Welfare Task Group (AWTG), comprised of representatives from each state and territory government, was tasked by Agriculture Senior Officials Committee (AGSOC) under the then Agriculture Minister's Forum (AGMIN) to develop the *Australian Animal Welfare Standards and Guidelines for Poultry*.

2015

The NSW Government volunteered to lead the development of the poultry welfare standards. Draft standards and guidelines were developed by NSW with Animal Health Australia as project manager. A Stakeholder Advisory Group (SAG) was assembled, and included representation from poultry industries, animal welfare organisations, relevant experts from research institutions, and government officials from each jurisdiction. The SAG was consulted during development of the draft standards and guidelines.

2017

At around this time the Victorian Government commissioned an independent review of scientific evidence relating to poultry welfare science. The review, titled the *Farmed Bird Welfare Science Review*, was commissioned partly in response to stakeholder criticism that there had not been an independent review of scientific evidence. The independent scientific review was not considered by the drafting group when preparing the draft standards and guidelines because the review was finalised around the time that standards were released for public consultation.

Despite lack of consensus about the content of the draft poultry welfare standards, all jurisdictions agreed to release the proposed standards and guidelines, and associated Consultation RIS, for public consultation from November 2017 until 26 February 2018.

During and after the public consultation period, the development of the proposed Australian Animal Welfare Standards and Guidelines for Poultry were heavily criticised by the public, the media, animal welfare groups, and some state and territory governments. Concerns included the role of industry in the development process, a lack of consideration of scientific evidence, the length of the process, and the adequacy of the proposed standards to improve poultry welfare.

2018

The NSW Government withdrew from leading the poultry welfare standards. Without a lead jurisdiction, the AWTG Chair took on lead responsibility for a time.

Redrafting of the standards and guidelines was initially estimated to be completed by the end of 2018. However, in November 2018 the AWTG agreed to extend the process by 12 months to be completed by the end of 2019 partly due to the unprecedented volume of submissions made during consultation, and the significant task of revising the draft poultry welfare standards. The AWTG experienced a hiatus when the chair retired.

2019

In 2019, AWTG had not yet been able to achieve agreement between jurisdictions on the treatment of major issues in the draft standards and guidelines, including the phase out of conventional caged egg production.

On 25 October 2019, agriculture ministers agreed that an independent panel should be established to oversee and finalise the Australian Animal Welfare Standards and Guidelines for Poultry. The panel would report to AGSOC, with the Australian Government Department of Agriculture, Water and the Environment providing secretariat.

2020

On 21 February 2020, the Agriculture Ministers' Forum agreed to membership of the panel and noted the importance of completing this work expeditiously.

On 30 November 2020, AWTG agreed that welfare standards for the slaughter of poultry should be addressed in the forthcoming Australian Animal Welfare Standards and Guidelines for Livestock at Processing Facilities. The slaughter of poultry for human consumption was removed from the scope of the poultry welfare standards.

Potential costs of proposed standards

C

C.1 Costing framework

This appendix provides additional information on the costing methodology, underlying data and assumptions, and the cost estimates. To ensure consistency with best practice regulation, the costing analysis of the proposed Standards was undertaken using a costing framework consistent with the Office of Best Practice Regulation (OBPR) Guidelines to account for the monetisable potential economic costs to the poultry industry.

The following sections outline key aspects in costing analysis.

- **Timeframe for analysis** — Consistent with best practice and previous Regulation Impact Statements, ACIL Allen modelled that compliance and enforcement actions begin the year that the amendments take effect — that is, the year that a producer must become compliant — with various phase-in periods from the commencement date. The costings were modelled between 2020 and 2040 for Option 3 and until 2046 under Option 4. During this period, there will be ongoing costs and benefits, which are also modelled.
- **Discount rate** — The OBPR requires the calculation of net present values at an annual central real discount rate of 7 per cent, with sensitivity analysis conducted using a lower bound discount rate of 3 per cent and an upper bound discount rate of 10 per cent. We have used a lower bound of 3 per cent. To ensure compliance with OBPR's requirements and consistency of comparison with other economic analysis of animal welfare benefits, ACIL Allen has used the OBPR's recommended discount rates.
- **Net Present Value (NPV)** — where the NPV is the sum of the discounted stream of costs. Typically, alongside the NPV a CBA will also produce a Benefit-Cost Ratio (BCR). The BCR is calculated by dividing the present value of benefits by the present value of costs and is interpreted as every \$1 of costs delivers 'X' dollars of benefit. However, given the benefits are largely not monetised, this has not been provided as it would be misleading in the context of this RIS.
- **Compliance** — The analysis will assume full compliance with the regulations if they are implemented. While in reality, not all producers are likely to comply with the requirements in full, this is a standard assumption in regulatory analysis. Where phase-in periods are modelled, we have taken a conservative approach and model changes in production systems as late as possible (i.e. the last year of the phase-in period).
- **Baseline** — The CBA was conducted using a 'top-down' approach that first estimates the size and scale of the poultry industry across the period of analysis and then breaks total production down by production method and location. The baseline is a projection of the future state of the world in the absence of any policy or regulatory change. In contrast with the CRIS, ACIL

Allen's baseline is dynamic and incorporates known changes in the future, rather than assume the market will remain static with current conditions. The objective of costings is to assess the change brought about by the new proposed regulations. As such, the baseline should reference those factors that will be affected by the supermarkets and broader consumers generally and which will affect the estimates of its impact. The definition of the baseline elements will represent the best estimate of how the world might look given the information available today. To establish the baseline for the Decision RIS, ACIL Allen considered:

- continuing trends in conversion to non-cage egg production; and
- changes in consumption and prices.
- **Potential costs** — Costs include the up-front capital costs, the ongoing costs, and the negative changes in productivity.
 - Capital and infrastructure costs — to comply with the new requirements, poultry industry will face increased capital costs. The data and information on cost parameters are assembled from various sources. These upfront costs will depend on the policy option and include:
 - facility conversion costs;
 - new facility costs;
 - land costs;
 - device costs;
 - fire management devices; and
 - welfare promoting upgrades such as plants or shelter.
 - Ongoing costs for industry — these costs refer to the costs that the poultry industry affected by the proposed regulatory changes will incur beyond the direct one-off costs. These could include:
 - management costs;
 - labour costs; and
 - utility costs.
 - Productivity costs for industry — farm practices which impact animal welfare stem from improvements to productivity, rather than as an end in themselves. Accordingly, regulations which affect farm practices are expected to impact productivity. Changes, or combinations thereof, are expected to impact productivity through:
 - changing egg-laying behaviour and total egg production;
 - changes to health and productive lifespan of poultry;
 - increased mortality, cannibalism, predation and other poultry losses; and
 - lost capacity.

The following sections outline proposed poultry standards, affected poultry and monetised cost impacts and associated assumptions.

C.2 A summary of potential costs

The standards listed in Table D.1 are costed in this study. A sensitivity analysis is also provided with three discount rates suggested by the OBPR. All costs are in 2020-21 prices.

Table D.1 Incremental costings of mandatory standards or guidelines under Option 3

Standard	Sub-standard or guideline	Undiscounted (\$m)	NPV (\$m) - 3% DR	NPV (\$m) - 7% DR	NPV (\$m) - 10% DR
Standard 3 – Risk management of extreme weather, natural disasters, disease, injury, and predation	SA3.7 – by 1 July 2025, a person in charge must ensure firefighting equipment is available and maintained for all indoor housing systems	9.6	7.7	6.0	5.0
Standard 4 – Facilities and equipment	SA4.5 – A person in charge must ensure all poultry housing, including mobile housing, must provide adequate ventilation, protection from extremes of weather, sufficient space to allow normal postures, reasonable access to feeding and water facilities	3.8	2.7	1.8	1.4
	SA4.8 – By 1 July 2025, a person in charge of poultry (excluding layer hens in commercial production) must provide reasonable access to appropriate substrate for pecking, foraging, and scratching.	4.0	2.8	1.7	1.3
Standard 5 – Management of outdoor systems	SA5.3 – By 1 July 2025, a person in charge of poultry kept in housing with access to an outdoor area must encourage use of the outdoor range by providing access to appropriately located shade and shelter from predators, opportunities to perform foraging and scratching behaviours, and a reasonable number and size of access points.	44.0	36.3	28.7	24.4
Standard 6 – Lighting	SA6.3 – By 1 July 2025, a person in charge must ensure that the light intensity for poultry is at least 10 lux at bird level during light periods, except under veterinary supervision to control an outbreak of pecking and/or cannibalism for a limited period.				
	SA6.5 – By 1 July 2025, a person in charge must ensure poultry are provided a minimum total of at least 6 hours of darkness within a 24-hour period with at least one uninterrupted period of darkness of at least 4 hours except: birds up to 7 days of age, to prevent huddling or clumping behaviours during very hot weather, poultry on the day of pick-up, laying and breeder birds up to 16 weeks of age, during a disease outbreak under veterinary supervision.	2.0	1.7	1.4	1.2
Standard 7 – Temperature and ventilation	SA7.3 – By 1 July 2025, a person in charge of poultry in sheds used for commercial production must monitor ammonia levels and ensure immediate corrective action is taken if ammonia levels exceed 15 ppm at bird level in sheds	1.3	0.9	0.6	0.5

Standard	Sub-standard or guideline	Undiscounted (\$m)	NPV (\$m) - 3% DR	NPV (\$m) - 7% DR	NPV (\$m) - 10% DR
Standard 9 – Handling and husbandry	SA9.16 – By 1 July 2025, beak trimming when undertaken in a hatchery, must be done using an infrared beam within 24 hours of take-off.				
	SA9.17 – By 1 July 2025, hot blade beak trimming must not be used except during outbreaks of injurious feather pecking and only by skilled operators using well maintained equipment and only under veterinary advice	1.9	1.3	0.8	0.6
B1 – laying chickens	SB1.12 – All cage-based housing facilities installed after 1 July 2022 must meet the requirements of standards SB1.1 and SB1.6 to SB1.11.	417.0	355.0	290.2	251.3
	– SB1.1, a person in charge must ensure the minimum height of all cages is 55 cm over the useable space				
	– SB1.6, a person in charge must provide layer hens with access to nest areas from point of lay				
	– SB1.7, a person in charge must provide a minimum of one single nest area for every 7 birds or 1m ² nesting area for every 120 birds from point of lay				
	– SB1.8, a person in charge must provide hens with access to perches or platforms				
	– SB 1.9, a person in charge must ensure perch or platform space for hens is a minimum of 15 cm per laying hen				
	– SB1.10, a person in charge must provide hens with access to a scratch area and/or claw shortening device as well as appropriate substrate for pecking, foraging and scratching, unless the birds have access to an outdoor area.				
	– SB1.11, a person in charge must ensure that all caged laying chickens have the following useable space: 750cm ² per bird if kept in a cage of 2 or more birds, 1000cm ² if a bird is kept in a single cage.				
	SB1.13 – A person in charge of layer hens must ensure that any cage-based housing system meets the requirements of standards SB1.1 and SB1.6 to SB1.11.	409.7	281.8	177.7	128.9
	– From 1 July 2032, if the cage system was installed before the close of 31 December 2011;	201.78	145.22	106.62	82.92
	– From 1 July 2033, if the cage system was installed after 31 December 2011 but before the close of 31 December 2012;	39.14	23.06	13.94	9.23
	– From 1 July 2034, if the cage system was installed after 31 December 2012 but before the close of 31 December 2013;	35.33	20.43	12.11	7.88

Standard	Sub-standard or guideline	Undiscounted (\$m)	NPV (\$m) - 3% DR	NPV (\$m) - 7% DR	NPV (\$m) - 10% DR
	– From 1 July 2035, if the cage system was installed after 31 December 2013 but before the close of 31 December 2014;	31.51	17.89	10.40	6.65
	– From 1 July 2036, if the cage system was installed after 31 December 2014.	101.94	58.82	34.58	22.24
B3 – Meat and Laying Chicken Breeders	SB3.5 – a person must provide nest areas during the egg production phase.	1.1	1.1	1.1	1.0
	SB3.6 – a person in charge must provide chicken breeders over 7 days of age, with access to perches and/or platforms	0.4	0.4	0.4	0.3
	SB 3.7 – a person in charge must ensure roosting space for layer breeders is not less than 15 cm per bird.	Not modelled			
	SB3.8 – a person in charge must provide chicken breeders access to a scratch area and/or claw shortening device	0.6	0.6	0.5	0.5
	SB3.9 – a person in charge must provide a minimum of one single nest area for every 7 birds or 1m ² nesting area for every 120 birds from point of lay	2.6	2.6	2.5	2.4
	SB3.10 – a person in charge must ensure that all caged chicken breeders have the following minimum acceptable space allowances: 750cm ² per bird if kept in a cage of 2 or more birds, 1000cm ² if a bird is kept in a single cage	13.9	13.6	13.1	12.6
	SB3.11 – from 1 July 2032, a person in charge must not exceed a stocking density in ideal conditions indoors of 30kg/m ² (measure as bird density in the useable space) for pullets and adult birds (including roosters)	37.9	29.7	21.5	16.9
B4 – Ducks	SB4.4 – A person in charge must ensure facilities are provided to allow all breeder ducks reasonable access to dip their heads under water, or showers are provided to allow ducks to wet preen and to clean their eyes and nostrils.	2.37	2.04	1.68	1.47
	SB4.5 – A person in charge must ensure nest areas are provided for layer ducks and duck breeders from the point of lay	0.88	0.76	0.63	0.55
B7 – Guinea Fowl	SB7.3 – A person in charge must ensure that guinea fowl have access to suitable perches and/or platforms	0.07	0.06	0.05	0.04
B10 – Pheasants	SB10.4 – A person must provide pheasants access to perches and/or platforms	0.10	0.08	0.07	0.06
B13 – Turkeys	SB13.4 – A person in charge must provide turkeys access to perches and/or platforms, as well as access to pecking objects and/or substrate from 14 days of age	2.04	1.48	1.01	0.78

C.3 A3 — Risk management

Chapter A3 mainly relates to risk management of extreme weather, natural disasters, disease, injury, and predation.

SA3.7 is costed below. This Standard indicates by 1 July 2025, a person in charge must ensure firefighting equipment is available and maintained for all indoor housing systems. Firefighting equipment is equipment that can be used to detect and prevent the spread of fire including water sprinklers or misters, smoke alarms, hoses, and portable fire extinguishers. This definition has been updated since the MCOP. It is believed that the vast majority of chicken meat production in Australia is through barn systems. This standard applies to all barn chicken meat producers and cage and barn layer producers. Key assumptions and data sources in estimating the incremental costs of this standard are summarised in Table D.2.

Table D.2 SA3.7 key assumptions

Variable/parameter	Units	Value	Sources and comments
One-off installation cost	\$/shed	\$24,500	ACIL Allen based on ACGC submission to Productivity Commission study on Regulations in Agriculture. ⁷³
Annual maintenance cost	\$/shed	\$800	EFA has indicated that shed extinguishers cost only around \$200 a shed, but the provision of fire hoses is dependent on the size of the shed and the existing water infrastructure.
Asset life of firefighting equipment (years)	Years	20	DAWE and various
Insurance premium savings	%	5%	ACIL Allen
Average insurance amount per shed	\$	1,000	ACIL Allen based on online-quotes
Non-compliance of all layer farms (cage and barn production systems)	%	7%	ESA accredited, requires basic firefighting equipment. ESA accreditation applies to around 93% of egg production.
Non-compliance of chicken meat farms (barn production system)	%	7%	All meat chicken enterprises are likely to have some level of 'basic' firefighting equipment, as per industry advice. It is assumed that non-compliance for meat chickens is like that of layer farms.
Number of layer sheds (cage and barn production systems)	no	285	ACIL Allen based on 2016 data from CRIS 2017, DAWE. 7% of these sheds will be affected.
Number of chicken meat sheds (barn production systems)	no	3,542	ACIL Allen based on 2016 DATA from CRIS 2017, DAWE. 7% of these sheds will be affected.

C.4 A4 — Facilities and equipment

Chapter A4 is mainly related to facilities and equipment.

SA4.5: Under this Standard, a person in charge must ensure all poultry housing, including mobile housing, must provide adequate ventilation, protection from extreme weather,

⁷³ <https://www.pc.gov.au/inquiries/completed/agriculture/submissions>.

sufficient space to allow normal postures, and reasonable access to feeding and water facilities. This Standard does not differ from existing requirements in the MCOP, however, industry and state governments raised concerns due to perceived non-compliance by industry. Mobile housing operators (pasture-based egg and meat chicken producers) may be non-compliant with this standard and may need to upgrade infrastructure. Desktop research indicates that meat chickens are not housed in mobile housing in Australia. Key assumptions and data sources in estimating the incremental costs of this standard are summarised in **Table D.3** SA4.5 key assumptions. It is only mobile housing that is considered unlikely to have full compliance with this outcomes-based standard, as overnight mobile housing may not comply with space allowances for poultry.

Table D.3 SA4.5 key assumptions

Variable/parameter	Units	Value	Sources and comments
Number of mobile pasture-based egg producers	No	252	ACIL Allen
Non-compliance rate	%	80%	ACIL Allen
Adequate ventilation for structure	\$	\$680	ACIL Allen
– Protection from extreme weather (shade, shelter and cooling)	\$	\$400	ACIL Allen
– Space to allow for normal posture	\$	\$900	ACIL Allen
– Access to feeding and water	\$	\$500	ACIL Allen

SA4.8: Under this Standard, by 1 July 2025, a person in charge of poultry (excluding layer hens in commercial production) must provide reasonable access to appropriate substrate — loose or friable material suitable for pecking, foraging and scratching such as feed pellets or litter material such as wood shavings, rice hulls or chopped straw — for pecking, foraging, and scratching. This standard may impact some producers using cages (e.g., quail) or slatted barns (e.g., some chicken meat producers). Key assumptions and sources in estimating the incremental costs of this standard are summarised in Table D.4.

Table D.4 SA4.8 key assumptions

Variable/parameter	Units	Value	Sources and comments
Annual substrate chopped straw cost per farm	\$2021 prices	\$4,500	ACIL Allen
Non-compliance of barn chicken meat producers	%	22%	RSPCA Approved coverage 78% meat chickens
Non-compliance of caged quail producers	%	22%	ACIL Allen
Slatted barn chicken meat producers	%	5%	ACIL Allen
Number birds affected - chicken meat	No	1,700,000	ACIL Allen
Number birds affected - quail	No	71,500	ACIL Allen

C.5 A5 — Management of outdoor systems

Chapter A5 is mainly related to the management of outdoor systems.

Under **SA5.3**, by 1 July 2025, a person in charge of poultry kept in housing with access to an outdoor area must encourage use of the outdoor range by providing access to

appropriately located shade and shelter from predators, opportunities to perform foraging and scratching behaviours, and a reasonable number and size of access points.

Key assumptions and sources in estimating the incremental costs are summarised in Table D.5.

Table D.5 SA5.3 key assumptions

Variable/parameter	Units	Value	Sources and comments
Non-compliance of free-range chicken meat producers	%	70%	DAWE and ACIL Allen
Non-compliance free-range layers	%	70%	DAWE and ACIL Allen
Calculation of hay/straw cost			
Number of bales of hay required for an outdoor range	No	100	DAWE and ACIL Allen
Price of hay (\$/bale)	\$/bale	4	DAWE and ACIL Allen
Cost per outdoor range	\$/shed	1,500	DAWE and ACIL Allen
Cost per hen	\$/hen	0.02	DAWE and ACIL Allen
Calculation of shade structure costs (waterproof shade cloth suspended from 4 posts (3m x 2m x 1m))			
Cost per shade structure	\$/structure	\$200	DAWE and ACIL Allen
This structure accommodation capacity	No	150	DAWE and ACIL Allen
Life of shade structure	Years	3	DAWE and ACIL Allen
Annual cost per bird	\$/bird	\$1.33	DAWE and ACIL Allen
Calculation of tree costs (includes trees and shrubs for shade)			
One-off cost per tree/shrub including water and labour to plant the tree	\$/tree	\$100	DAWE and ACIL Allen
Number of birds accommodated by each tree/shrub shade	No	50	ACIL Allen
Annual cost per bird	\$/bird	\$2.00	ACIL Allen

C.6 A6 — Lighting

Chapter A6 is mainly related to lighting requirements.

Under **SA6.3**, by 1 July 2025, a person in charge must ensure that the light intensity for poultry is at least 10 lux at bird level during light periods, except under veterinary supervision to control an outbreak of pecking and/or cannibalism for a limited period. Under **SA6.5**, by 1 July 2025, a person in charge must ensure poultry are provided a minimum total of at least 6 hours of darkness within a 24-hour period with at least one uninterrupted period of darkness of at least 4 hours except: birds up to 7 days of age, to prevent huddling or clumping behaviours during very hot weather, poultry on the day of pick-up, laying and breeder birds up to 16 weeks of age, during a disease outbreak under veterinary supervision. Key assumptions and sources in estimating the incremental costs of SA6.3 and SA6.5 are summarised in Table D.6.

Table D.6 SA6.3 and SA6.5 key assumptions

Variable/parameter	Units	Value	Sources and comments
Non-compliance layer farms for 10 lux lighting standards	%	7%	https://www.australianeggs.org.au/dmsdocument/1111-egg-standards-of-australia-esa-for-rearing-and-layer-farms-november-2019-pdf
Non-compliance meat chicken farms for 10 lux lighting standards	%	22%	78 per cent of farms comply with 10 lux due to RSPCA standards requiring 10 lux with a minimum 6-hour dark period.
One-off cost of wiring/light bulbs per shed for layers	\$2021 prices	\$31,140	Based on Tim Harding & Associates and Rivers (2017)
One-off cost of wiring/light bulbs per shed for meat chickens and other poultry – 10 lux	\$2021 prices	\$7,993	Based on Tim Harding & Associates and Rivers (2017)

C.7 A7 — Temperature and ventilation

Chapter A7 relates to temperature and ventilation.

Under SA7.3, by 1 July 2025, a person in charge of poultry in sheds used for commercial production must monitor ammonia levels and ensure immediate corrective action is taken if ammonia levels exceed 15 ppm at bird level in sheds. Key assumptions and sources in estimating the incremental costs are summarised in Table D.7.

Table D.7 SA7.3 key assumptions

Variable/parameter	Units	Value	Sources and comments
A. Automatic ammonia monitor cost per shed	\$2021 prices	\$3,323	Automatic ammonia sensors vary in price, however, generally range from between \$2,500 and \$4,000 depending on the manufacturer https://www.ctiengineering.com/products/c25-handheld-ammonia-detectors
– Replacement cost for sensing element	\$2021 prices	\$500	https://www.ctiengineering.com/products/c25-handheld-ammonia-detectors
– Replacement duration	year	2	https://www.ctiengineering.com/products/c25-handheld-ammonia-detectors
B. DOL53 ammonia monitoring system	\$2021 prices	\$1,471	DAWE and Big Dutchman
– Replacement cost for sensing element	\$2021 prices	\$1,029	DAWE and Big Dutchman
– Replacement duration	year	2	DAWE and Big Dutchman
Non-compliance — layer farms	%	7%	DAWE, ESA covers 93 per cent of egg production in Australia so non-compliance would only be 7 per cent.
Non-compliance — chicken meat farms	%	22%	DAWE industry consultation, 78 per cent coverage with RSPCA standards which require ammonia monitoring

C.8 A9 — Handling and husbandry

Chapter A9 relates to handling and husbandry. Under **SA9.16** from 1 July 2025 beak trimming must be done using an infrared beam within 24 hours of take-off; and under **SA9.17** from 1 July 2025 hot blade beak trimming must not be used except during outbreaks of injurious feather pecking and only done by skilled operators. Table D.8 summarises the key assumptions and data sources used for estimating the incremental costs associated with these standards.

Table D.8 SA9.16 and SA9.17 key assumptions

Variable/parameter	Units	Value	Sources and comments
Annual cost of leasing Nova-tech infrared beak trimmer	\$2021 prices	\$64,356	Based on Tim Harding & Associates and Rivers (2017)
Number of hatcheries non-complaint	No	2	DAWE

C.9 B1 — Laying chickens

Proposed standards for laying chickens are assessed for two different phase-in periods with a number of sub-standards. Two phase-in periods are stated under **SB1.12** and **SB1.13**.

- Under **SB1.12**, all cage-based housing facilities installed after 1 July 2022 must meet the requirements of standards **SB1.1**, **SB1.6**, **SB1.7**, **SB1.8**, **SB1.10** and **SB1.11**.
 - Under **SB1.1**, a person in charge must ensure the minimum height of all cages is 55 cm over the useable space.
 - Under **SB1.6**, a person in charge must provide layer hens with access to nest areas from point of lay.
 - Under **SB1.7**, a person in charge must provide a minimum of one single nest area for every 7 birds or 1m² nesting area for every 120 birds from point of lay.
 - Under **SB1.8**, a person in charge must provide hens with access to perches or platforms.
 - Under **SB1.10**, a person in charge must provide hens with access to a scratch area and/or claw shortening device as well as appropriate substrate for pecking, foraging and scratching, unless the birds have access to an outdoor area.
 - Under **SB1.11**, a person in charge must ensure that all caged laying chickens have the following useable space: 750cm² per bird if kept in a cage of 2 or more birds, 1000cm² if a bird is kept in a single cage.
- Under **SB1.13**, a person in charge of layer hens must ensure that any cage-based housing system meets the requirements of standards **SB1.1**, **SB1.6**, **SB1.7**, **SB1.8**, **SB1.10** and **SB1.11**:
 - from 1 July 2032, if the cage system was installed before the close of 31 December 2011;
 - from 1 July 2033, if the cage system was installed after 31 December 2011 but before the close of 31 December 2012;
 - from 1 July 2034, if the cage system was installed after 31 December 2012 but before the close of 31 December 2013;

- from 1 July 2035, if the cage system was installed after 31 December 2013 but before the close of 31 December 2014; and
- from 1 July 2036, if the cage system was installed after 31 December 2014.

Key assumptions and data sources are similar for the two-phase in periods for layer chickens, however the timing varies. Key assumptions are listed in Table F.9.

Table D.9 SB1.12 and SB1.13 key assumptions

Variable/parameter	Units	Value	Sources and comments
SB1.11			
Change in carrying capacity of a shed (due to change in volume of the cage)	%	-61.9%	ACIL Allen estimate of $((40 \times 550) \div (55 \times 750) - 1) \times 100 = -46.7\%$ under SB1.1 and SB1.11 plus additional 40 per cent of volume for nest areas (SB1.6, SB1.7, SB1.8 and SB1.10) and access to perches gives a total of -61.9%. This assumes that the tiers of cages cannot go higher than they are currently in operation. It is possible that the new cages in new sheds could go higher than the current operations.
Land required per shed laying hens in new cages	ha	0.7	DAWE, a single poultry shed often houses up to 100,000 laying hens, and even with the increased space allowance, they should not need more than 0.7 ha per shed.
Life of cage asset	Years	20	PC 1998, Tim Harding & Associates and Rivers (2017), Pegasus Economics (2020), ANZOG (2011)
Cost of a new cage (550 cm ²) in an existing shed (one-off)	\$/hen	\$10.38	Based on Big Dutchman and Tim Harding & Associates and Rivers (2017)
Cost of a new cage (750 cm ² with furnishings) in an existing shed (one-off)	\$/hen	\$48.34	Based on Big Dutchman and Tim Harding & Associates and Rivers (2017). This new cage includes the cost of enrichments and/or furnishings.
Cost of a new cage (750 cm ² with furnishings) in a new shed (one-off)	\$/hen	\$76.34	Based on Big Dutchman and Tim Harding & Associates and Rivers (2017). This new cage includes the cost of enrichments and/or furnishings. This includes construction cost of a new shed.
Ongoing annual cost	\$/hen	\$1.45	DAWE, ongoing costs include costs associated with operating additional sheds.
Land cost	\$/ha,	\$5,271	Based on Rural Bank
SB1.6 and 1.7			
Net cost	\$	31	Big Dutchman, average
Number of birds per nest	no	7	DAWE
SB1.8 and SB1.9			
Perch cost	\$/hen	0.64	Big Dutchman, average with 15cm minimum per laying hen
SB1.10			
Non-compliance of caged layers	%	22%	ACIL Allen

Variable/parameter	Units	Value	Sources and comments
Annual cost of substrate (chopped straw bales)	\$/hen	0.15	ACIL Allen

C.10 B3 — Meat and laying chicken breeders

The proposed standards for chicken breeders listed below are similar to the layers (SB1) in terms of minimum acceptable space, providing neat areas, access to perches or platforms and scratch areas or claw shortening devices. Therefore, the cost assumptions provided in Table D.10 are applied to the standards for chicken breeders. Except the costs may be different, as the assumptions in Table D.10 apply to caged layers, whereas most chicken breeders are kept in barns. Therefore, costs like perches may be different, as it will be furnishing a barn (open space) and not cages. The number of chicken breeders affected as a result of these new proposed standards are around 0.5 per cent of meat chickens (approximately 800,000 in 2025).

- Under SB3.5, a person must provide nest areas during the egg production phase.
- Under SB3.6, a person must provide chicken breeders over 7 days of age, access to perches and/or platforms.
- Under SB3.7, a person in charge must ensure roosting space for layer breeders is not less than 15 cm per bird (not modelled).
- Under SB3.8, a person in charge must provide chicken breeders access to a scratch area and/or claw shortening device.
- Under SB3.9, a person in charge must provide a minimum of one single nest area for every 7 birds or 1m² nesting area for every 120 birds from point of lay.
- Under SB3.10, a person in charge must ensure that all caged chicken breeders have the following minimum acceptable space allowances: 750cm² per bird if kept in a cage of 2 or more birds, 1000cm² if a bird is kept in a single cage.
- Under SB3.11, a person in charge must not exceed a stocking density in ideal conditions indoors of 30kg/m² (measure as bird density in the useable space) for pullets and adult birds (including roosters) by 1 July 2032. This has longer phase-in period

Table D.10 B3 key assumptions

Variable/parameter	Units	Value	Sources and comments
SB3.5 and SB3.9			
Nesting single unit cost once-off	\$/nest	31	ACIL Allen estimate based on Big Dutchman
Life of nest box (years)	Years	20	ACIL Allen estimate based on Big Dutchman
3 to 7 birds can use one nest box	no	7	ACIL Allen estimate based on Big Dutchman
Non-compliance of layer breeders	%	7%	DAWE
Non-compliance of meat chicken breeders	%	100%	ACIL Allen
SB3.6			
Perch cost	\$/hen	0.64	Big Dutchman, average
<i>Barn raised meat breeders</i>			

Variable/parameter	Units	Value	Sources and comments
– Ratio of breeders to meat chickens	%	0.5%	DAWE and ACIL Allen
– Banned meat chicken breeders	%	85%	DAWE and ACIL Allen
– Chicken breeder birds over 7 days	%	75%	DAWE and ACIL Allen
– Non-compliance of barn raised meat breeders	%	70%	DAWE and ACIL Allen
<i>Caged layer breeders</i>			
Ratio of breeders to layers	%	0.5%	DAWE and ACIL Allen
Caged layer chicken breeders	%	95%	DAWE and ACIL Allen
Layer breeder birds over 7 days	%	70%	DAWE and ACIL Allen
Non-compliance of caged layer breeders	%	80%	DAWE and ACIL Allen
SB3.8			
Abrasive strip cost	\$/hen	1.34	https://www.sciencedirect.com/science/article/pii/S0032579119301713 and https://www.australianeggs.org.au/dmsdocument/580-benefits-of-abrasive-strips-and-abrasive-paint-in-layer-cages-for-hens
Non-compliance of barn-raised meat breeders	%	70%	DAWE and ACIL Allen
Non-compliance of caged layer breeders	%	70%	DAWE and ACIL Allen
SB3.10			
Change in carrying capacity of a shed (due to change in volume of the cage)	%	-46.7%	ACIL Allen estimate of $((40 \times 550) \div (55 \times 750) - 1) \times 100 = -46.7\%$. This assumes that the tiers of cages cannot go higher than they are currently in operation. It is possible that the new cages in new sheds could go higher than the current operations.
Land required per shed laying hens in new cages	ha	0.7	DAWE, a single poultry shed often houses up to 100,000 laying hens, and even with the increased space allowance, they should not need more than 0.7 ha per shed.
Life of cage asset	Years	20	PC 1998, Tim Harding & Associates and Rivers (2017), Pegasus Economics (2020), ANZOG (2011)
Cost of a new cage (550 cm ²) in an existing shed (one-off)	\$/hen	\$10.38	Based on Big Dutchman and Tim Harding & Associates and Rivers (2017)
Cost of a new cage (750 cm ²) in an existing shed (one-off)	\$/hen	\$40.50	Based on Big Dutchman and Tim Harding & Associates and Rivers (2017). The new cages do not include the cost of enrichments and/or furnishings.
Cost of a new cage (750 cm ²) in a new shed (one-off)	\$/hen	\$70.70	Based on Big Dutchman and Tim Harding & Associates and Rivers (2017). This includes construction cost of a new shed. This new cage does not include the cost of enrichments and/or furnishings.

Variable/parameter	Units	Value	Sources and comments
Ongoing annual cost	\$/hen	\$1.45	DAWE, ongoing costs include costs associated with operating additional sheds.
Land cost	\$/ha,	\$5,271	Based on Rural Bank
SB4.11			
Change in carrying capacity (due to change in volume)	%	11%	Industry have informed the panel that including nesting areas in useable space would result in a 11% reduction in space for meat chicken breeder birds
Non-compliance	%	70%	DAWE and ACIL Allen

C.11 B4 — Ducks

Under **SB4.4**, a person in charge must ensure facilities are provided to allow breeder ducks reasonable access to dip their heads under water and showers are provided to allow ducks to wet preen, and to clean their eyes and nostrils. Under **SB4.5**, a person in charge must ensure nest areas are provided for duck breeders from the point of lay. Key assumptions and sources in estimating the incremental costs are summarised in Table D.11.

Table D.11 SB4.4 and SB4.5 key assumptions

Variable/parameter	Units	Value	Sources and comments
Nesting single unit cost once-off	\$/nest	31	ACIL Allen estimate based on Big Dutchman
3 to 7 birds can use one nest box	no	3	ACIL Allen estimate based on Big Dutchman
Non-compliance of duck breeders for access to water (SB4.4)	%	100%	ACIL Allen assumption
Non-compliance of duck breeders for nest areas (SB4.5)	%	30%	ACIL Allen assumption
Number of breeder duck sheds affected under SB4.4	no	8	Approximately
Number of breeder ducks affected under SB4.5	no	86,000	Approximately

C.12 B7 — Guinea fowl

Under SB7.3, a person in charge must ensure that guinea fowl have access to suitable perches and/or platforms. Key assumptions and sources are summarised in Table D.12.

Table D.12 SB7.3: key assumptions

Variable/parameter	Units	Value	Sources and comments
Perch cost	\$/hen	0.64	Big Dutchman, average
Non-compliance	%	30%	DAWE and ACIL Allen
Number of guinea fowl effected	no	12,000	Approximately

C.13 B10 — Pheasants

Under SB10.4 pheasants must be provided access to perches and/or platforms. Key assumptions and sources in estimating the incremental costs are summarised in Table D.13.

Table D.13 SB10.4: key assumptions

Variable/parameter	Units	Value	Sources and comments
Perch cost	\$/hen	0.64	Big Dutchman, average
Non-compliance	%	30%	DAWE and ACIL Allen
Number of pheasants effected	no	18,000	Approximately

C.14 B13 — Turkeys

Under SB13.4 turkeys must be provided access to perches and/or platforms, as well as access to pecking objects and/or substrate from 14 days of age. Key assumptions and sources in estimating the incremental costs are summarised in Table D.14.

Table D.14 SB13.4: key assumptions

Draft Australian Animal Welfare Standards and Guidelines for Poultry

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Contents

Glossary	79
Background	84
Introduction	85
Purpose	85
Scope	85
Development process	87
Interpretation	87
Principles for poultry welfare	88
Part A General standards and guidelines for all species of poultry	90
A1 Responsibilities	90
Objective	90
Standards	90
Guidelines	90
A2 Feed and water	91
Objective	91
Standards	91
Guidelines	91
A3 Risk management of extreme weather, natural disasters, disease, injury and predation	92
Objective	92
Standards	92
Guidelines	93
A4 Facilities and equipment	95

Objective	95
Standards	95
Guidelines	96
A5 Management of outdoor systems	98
Objective	98
Standards	98
Guidelines	98
A6 Lighting	99
Objective	99
Standards	99
Guidelines	100
A7 Temperature and ventilation	100
Objective	100
Standards	100
Guidelines	100
A8 Litter management	101
Objective	101
Standards	101
Guidelines	101
A9 Handling and husbandry	101
Objective	101
Standards	101
Guidelines	103
A10 Humane killing	104

Objective	104
Standards	105
Guidelines	105
Part B Commercial production standards and guidelines for poultry	106
B1 Laying chickens	106
Standards	106
Guidelines	108
B2 Meat chickens	109
Standards	109
Guidelines	110
B3 Meat and laying chicken breeders	111
Standards	111
Guidelines	112
B4 Ducks	113
Standards	113
Guidelines	113
B5 Emus	114
Standards	114
Guidelines	115
B6 Geese	117
Standards	117
Guidelines	117
B7 Guinea fowl	118

Standards	118
Guidelines	118
B8 Ostriches	119
Standards	119
Guidelines	119
B9 Partridge	120
Standards	120
Guidelines	120
B10 Pheasants	121
Standards	121
Guidelines	121
B11 Pigeons	121
Standards	121
Guidelines	122
B12 Quail	123
Standards	123
Guidelines	123
B13 Turkeys	124
Standards	124
Guidelines	125
Tables	
Table 1 Space allowance requirements for meat chickens	110
Table 2 Space allowance requirements for ducks	113
Table 3 Space allowance requirements for geese	117
Table 4 Space allowance requirements for guinea fowl	118
Table 5 Space allowance requirements for turkeys	124

Glossary

Term	Definition
access to water	A reasonable opportunity for poultry to be able to drink water of a suitable quality and quantity to maintain their hydration.
alternate day feeding	The practice of feeding 2 days of rations on alternate days to meat breeder birds.
animal welfare	The state of an animal and how well it is coping with the conditions in which it lives.
animal welfare objective	The intended outcome(s) for each chapter of the standards and guidelines.
artificial breeding procedures	Includes artificial insemination and semen collection.
artificial insemination	The introduction of semen into the female reproductive tract by methods other than by natural mating.
beak trimming	The removal of part of the beak of poultry.
bleeding out	Loss of blood caused by cutting the major blood vessels, usually in the neck or at the base of the heart via the thoracic inlet.
brooder	Heated structure used for raising young birds.
brooding	The provision of warmth and/or food from a parent or external source for eggs and newly hatched chicks.
cage systems	A housing system in which birds are continuously housed in cages within a shed.
caking	Undesirable compaction of the surface of litter.
cannibalism	The practice by some birds of pecking and eating other members of the same flock.
chicks	Poultry under 72 hours old, commonly known as day-old chicks and poults.
claw-shortening device	Abrasive device or flooring for scratching.
cock	A sexually mature male bird.
cold stress	When the response by birds to cold conditions below their thermoneutral zone exceeds the ability of their behavioural or physiological coping mechanisms.
commercial production	A business that engages in the breeding, sale or slaughter of poultry for profit. Commercial production does not include poultry kept for personal use, such as backyard chickens or exhibition poultry.
competency	<p>The ability to demonstrate the knowledge, skills, attitude and behaviour to undertake the requirements of these standards. Supporting evidence of competency includes:</p> <ul style="list-style-type: none"> • records of on-the job training • relevant experience • recognised training and staff training registers • induction training • supervisor sign-off for specific tasks.
construction	Nature of facilities or equipment, including the design, layout, installation, assembly of the facilities and the materials of which they are made.
controlled environment housing	A housing system where the operator can control temperature, air quality and light.

Term	Definition
cull	The identification and removal of non-productive birds from the flock.
darkness	A dark period provided usually at night where all lights are switched off.
desnooding	Removal of the snood – an erectile, fleshy protuberance on the forehead of male turkeys.
despurring	Removal of the first digit at, or below, the metatarsal joint.
direct supervision	A person (the supervised person) is acting under the direct supervision of another person (the supervisor) if the supervisor: <ul style="list-style-type: none"> (a) provides instructions and guidance to the supervised person in relation to the subject activity (b) oversees and evaluates the performance of the activity by the supervised person (c) is contactable by the supervised person (d) is supervising the person in accordance with paragraphs (a), (b) and (c) (e) is on the same premises as the supervised person while the subject activity is being undertaken, and (f) can immediately render assistance to the supervised person, if required, at any time during which the subject activity is being undertaken.
dubbing	The procedure of removing the comb, wattles and sometimes earlobes of poultry. Removing the wattles is sometimes called 'dewattling'.
egg-production phase	The period between the point of lay and the cessation of egg laying. This may be seasonal.
emergency	Where animal welfare or human safety may otherwise be compromised.
emergency depopulation	Killing of large numbers of birds to control emergency disease and/or to protect public health; or to rapidly kill poultry in the event of natural disasters, building collapses or other unpredictable events.
enrichments	Materials and structures provided to meet the behavioural needs of poultry, which can help to minimise the development of abnormal behaviours.
extremes of weather	Temperature and climatic conditions (e.g., rain, hail, snow, wind, humidity and heat) that individually or in combination are likely to predispose poultry to heat or cold stress.
facilities	Any yard, runway, ramp, floors, building, enclosure or fittings used for the purpose of housing or handling poultry, including portable facilities and equipment.
firefighting equipment	Equipment that can be used to detect and prevent the spread of fire, including water sprinklers or misters, smoke alarms, hoses, and portable fire extinguishers.
flock	A number of birds of the same origin (genotype), age and managed in the same way.
guardian animals	Animals that are trained to protect birds from predators, includes alpacas and dogs.
guidelines (G)	The recommended practices to achieve desirable animal welfare outcomes. Guidelines use the word 'should' and complement the standards. Noncompliance with one or more guidelines will not constitute an offence under law.

Term	Definition
heat stress	When the response by birds to hot conditions above their thermoneutral zone exceeds the ability of their behavioural or physiological coping mechanisms.
hen	A sexually mature female bird.
hock	The joint of the leg between the lower thigh and the shank. It is most commonly the region where the feathered portion of the leg ends and the scaly shank of the lower leg starts.
incubator	The machine used to incubate and artificially hatch fertile eggs.
induced moulting	The process of causing a flock to cease and resume egg production, usually through feed restriction. Shedding and renewing feathers occurs simultaneously.
inspection	The visual check of the health and welfare of poultry on an individual or bird group basis.
layer	A female in lay. Usually used to refer to females kept solely for egg production for human consumption.
laying chickens	Laying chickens (<i>Gallus gallus</i>) reared, kept, and managed for egg production, but do not include birds being reared and managed for purposes of breeding laying chickens.
lift	'Lifting off the ground'. Handling of the head, neck or tail feathers to control or steady an animal in a supported lift or other manoeuvre. This is permitted where the major effort is whole-body support, and not using one or a combination of the head, neck, or tail feathers for the major effort.
litter	A mixture of the source material placed on the floor of a shed or cage, and the excreta, feathers and other detritus from the chickens plus wasted feed and water.
lux	A unit of illumination equal to one lumen per square metre. Used to measure the brightness or intensity of light.
meat chickens	Birds (<i>Gallus gallus</i>) being reared, kept, and managed for meat production purposes and do not include birds being reared and managed for the purpose of breeding meat chickens. Also referred to as broilers.
mechanical ventilation	Any ventilation system that requires power for its operation.
nest area	Provides poultry with adequate space, separation from cohorts and the opportunity for laying in a darkened, secluded area.
non-cage systems	Housing systems in which birds are not confined in a cage and that may include access to an outdoor area.
non-fasting induced moulting	The induction of moulting without restricting feed rations, usually through a reduction in photoperiod and by feeding a low-energy, high-fibre diet ad libitum over the course of 5 to 6 weeks.
notes	Explanations of the context of the standards and guidelines.
person	Anyone interacting directly with poultry. Can be more than one person (plural) and not just a specific person.
person in charge	Where responsibility is shared, this may extend along a hierarchy of management to include all levels of management and ownership as appropriate. 'The person in charge' usually relates to a single, specific person.
pick-up	The removal of birds at the end of the production cycle.
pinioning	Removal of the second to fifth digits at, or below, the metacarpal joint.

Term	Definition
pop hole	An opening that provides birds with access between indoor and outside areas.
poultry	The bird types reared or bred in captivity for any reason, including those that are kept for shows, races, exhibitions, competitions or for breeding or selling. Includes chickens, ducks, emus, geese, guinea fowl, ostriches, partridges, pheasants, pigeons, quail and turkeys.
racing loft	Becomes the home of those pigeons bred for racing purposes. Ample perches are provided to enable each pigeon to select and occupy its specific perch. From the time of weaning the birds are trained to return to the loft which provides security for them.
rearing	Management of poultry from day old to sexual maturity or production age.
reasonable action(s)	Those actions regarded as reasonable to be done by an experienced person in the circumstances to address a problem, as determined by accepted practice and by other similarly experienced people.
risk to welfare of poultry	The potential for a factor to affect the welfare of poultry in a way that causes pain, injury, or distress to poultry. The outcome could include hypothermia, heat stress, dehydration, exhaustion, injury, disease, or death. Risks can be managed by undertaking 'reasonable actions' to prevent or reduce them.
routinely	Part of a regular procedure rather than for a special reason.
scratch area	A surface area that allows scratching and foraging behaviour.
showers	Bathing system for ducks that provides a sufficient stream of water from overhead nozzles of a suitable pressure to allow all ducks constant, full-body access to bathing water.
slatted floor system	A system of raised flooring with gaps that allow bird faeces to pass through.
standards (S)	The animal welfare requirements designated in this document that must be met under law for livestock welfare purposes. The standards are intended to be clear, essential and verifiable statements. However, not all issues are able to be well defined by scientific research or are able to be quantified. Science cannot always provide an objective or precise assessment of an animal's welfare and, consequently, where appropriate science is not available, the standards reflect a value judgement that has to be made for some circumstances. Standards use the word 'must'.
stock bird loft	Housing for breeding pigeons.
substrate	Loose or friable material suitable for pecking, foraging and scratching – for example, feed pellets or litter materials such as wood shavings, rice hulls or chopped straw. Also includes materials found on a range, such as grass.
supervision	A person (the supervised person) is acting under the supervision of another person (the supervisor) if the supervisor: (a) provides instructions and guidance to the supervised person in relation to the subject activity (b) oversees and evaluates the performance of the activity by the supervised person, and (c) is contactable by the supervised person. See 'direct supervision'.

Term	Definition
take-off	The removal of recently hatched chicks from the incubator into a container for transport, usually done 12 hrs after commencement of hatching.
useable space	Space that has sufficient height to allow a bird to move freely and perform normal postures and does not include nest areas and structures such as raised perches and feed troughs.
vent	The common external opening from the cloaca for the digestive system, urinary system and reproductive system.
veranda	Enclosed roofed area attached to a building, e.g., shed, level with the ground floor, designed to give shade or shelter.
web marking	A method of altering the web between the toes as a means of permanent identification. This includes web splitting.

Background

The development of Draft Australian Animal Welfare Standards and Guidelines for Poultry is an important initiative of Australian governments to guide new, nationally consistent policies to enhance animal welfare arrangements in all Australian states and territories. The development process is supported and funded by all governments and the major poultry industries. The standards provide a basis for developing and implementing consistent legislation and enforcement across Australia and guidance for all people responsible for poultry.

The standards are underpinned by a review of the relevant scientific literature, recommended industry practice and community expectations. This review ensures that the standards are scientifically valid and supported by a public consultation process that gives the community, industry, government and any other relevant stakeholders opportunities to comment on drafts of the standards and guidelines documents. It is acknowledged that interpretation of animal welfare science is influenced by the worldview and convictions (values) of the individual reader. This interplay of values and science can lead to people drawing different conclusions about the same piece of animal welfare science.

The draft standards are not intended to predict, influence or restrict specific market access. Industry can introduce higher standards of animal welfare or other innovations to meet specific market requirements.

These draft standards were developed in consultation with state and territory governments, livestock industry organisations, animal welfare groups and the general public, with the support of agriculture ministers and senior officials from all jurisdictions. The draft standards were drafted by a small interjurisdictional drafting group, in a process initially managed by Animal Health Australia (AHA) under the guidance of the NSW Department of Primary Industries and the interjurisdictional Animal Welfare Task Group (AWTG). A public consultation was held on an initial draft in 2017 and 2018 and in response to the public feedback received a subsequent redraft, which was considered by the representative Stakeholder Advisory Group in June 2019.

In February 2020 agriculture ministers agreed to [terms of reference](#) when they appointed the Independent Poultry Welfare Panel to finalise the standards. The panel consulted members of the Stakeholder Advisory Group and directed the redrafting of the standards consistent with the objectives outlined in the [terms of reference](#). It must be acknowledged that this draft document does not represent the views of all parties that contributed to its development.

An important part of the process is the preparation of a regulation impact statement (RIS) to assess the proposed standards and evaluate the costs resulting from changes to existing requirements. A decision RIS has been completed based on the Independent Poultry Welfare Panel's final recommendations following targeted consultation on these draft standards.

These poultry standards and guidelines are intended to replace the Model Codes of Practice:

- [Model Code of Practice for the Welfare of Animals: Domestic Poultry](#)
- [Model Code of Practice for the Welfare of Animals: Farming of Ostriches](#)
- [Model Code of Practice for the Welfare of Animals: Husbandry of Captive-Bred Emus](#)

Introduction

Purpose

The purpose of this document is to detail standards and guidelines for the welfare of all poultry in Australia. The document informs all those with responsibilities for the care and management of poultry.

The **standards** provide the basis for developing and implementing consistent legislation and enforcement across Australia, and direction for people responsible for poultry. They reflect available scientific knowledge, current practice and community expectations.

The poultry standards and guidelines may be reflected in the industry-based quality-assurance programs that may include poultry welfare provisions.

In May 2009 primary industries ministers took the position that **guidelines**, regardless of their purpose in existing codes and the new standards and guidelines documents, **will not be regulated**.

An agreement was reached that all future revisions of Australian standards and guidelines documents must provide:

- clear essential requirements ('standards') for animal welfare that can be verified and are transferable into legislation for effective regulation
- guidelines that are
 - , to be produced concurrently with the standards but not enforced in legislation, to be considered by industry for incorporation into national industry quality assurance along with the standards.

This document is part of a series of standards and guidelines that brings together welfare standards and guidelines for particular animal-related activities — in this case, the keeping, rearing and humane killing of poultry.

Scope

The standards will apply to all poultry in Australia. 'Poultry' are defined within this document as the bird types reared or bred in captivity:

- chickens
- ducks
- emus
- geese
- guinea fowl
- ostriches
- partridges
- pheasants
- pigeons
- quail
- turkeys.

The standards apply to all those responsible for the care and management of poultry, including commercial producers including free-range, backyard poultry owners and poultry fanciers, and exclude the transport and slaughter of poultry which are covered under separate standards and guidelines.

These standards and guidelines should be considered in conjunction with other requirements for livestock. This includes relevant biosecurity legislation and related Commonwealth, state, and territory legislation, such as:

- for farming enterprises
 - model codes of practice or standards and guidelines for livestock species
 - the Australian Consumer Law (ACL) National Information Standard on free-range eggs
- for transport
 - [Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock](#)
 - [Australian Standards for the Export of Livestock](#)
 - livestock health and biosecurity requirements
 - regulated livestock loading schemes and driver regulations
- for slaughter establishments
 - [Model Code of Practice for the Welfare of Animals – Livestock at Slaughtering Establishments](#)
 - [Australian Standard for the Construction of Premises and Hygienic Production of Poultry Meat for Human Consumption \(AS 4465:2001\)](#)
- for food processing establishments
 - [Primary Production and Processing Standard for Poultry Meat \(Standard 4.2.2\)](#)
 - [Primary Production and Processing Standard for Eggs and Egg Products \(Standard 4.2.5\)](#)
- for research and teaching purpose
 - [Australian code for the care and use of animals for scientific purposes](#)
- for humane killing in an emergency animal disease outbreak situation
 - [Operational manual: destruction of animals \(version 3.2\)](#)
 - [Methods for the destruction of poultry, pet/zoo birds and aviary species](#)

Where legislation provides for a higher standard than these standards, the higher standard will apply. Where there is a conflict with another standard in meeting the livestock welfare standards, the welfare of livestock must be the first consideration unless there is a work health and safety requirement.

Cruelty and unacceptable animal welfare practices can be prosecuted under cruelty and aggravated cruelty offence clauses in animal welfare legislation. For example, 'poultry must not be allowed to die from lack of feed or water'.

Advice or assistance with welfare management and disease control is available from state and territory departments of agriculture and locally based private consultants or veterinarians, as appropriate. These Australian standards and guidelines do not endeavour to describe best practice because it is often too difficult to reflect known regional and species variation. Other industry and government documents better communicate these industry practices and consider regional variations.

Development process

In the past, each document in the series of Australian animal welfare standards and guidelines has been produced following the same overall process. Drafting of the document has been undertaken by a drafting group under the direction of the Animal Welfare Task Group (AWTG) and guided by a stakeholder advisory group that includes appropriate representation from industry, government, and non-government organisations. A lead government agency oversees the development process with the assistance of a project manager.

However, for the Australian Animal Welfare Standards and Guidelines for Poultry, an independent panel was also appointed to oversee the finalisation of the standards, drawing on the extensive resources from the previous poultry standards development work. The panel has consulted state and territory government departments, industry representatives and animal welfare groups during their work. This has been an important part of the standards development process.

The panel were asked to ensure the Animal Welfare Standards and Guidelines for Poultry:

- provide the basis for nationally consistent and effectively enforced regulation
- improve animal welfare outcomes within Australia's poultry industries
- reflect contemporary animal welfare science, taking into account current industry practices, cost-benefits, new technologies and practicalities of implementation
- align with the values and expectations widely shared by the Australian community
- meet the expectations of trading partners, taking into account possible domestic and international trade impacts.

A regulation impact statement (RIS) is also prepared for the standards. The primary purpose of regulation impact statements is to ensure that the economic and social costs and benefits of regulatory proposals are examined fully so government and members of the community can be satisfied that the benefits of the regulations exceed the costs. The RIS document, along with these draft standards and guidelines documents, are made available in print and at [Australian Welfare Standards and Guidelines](#).

The final documents will be provided to state and territory jurisdictions and industry bodies, for referencing in relevant legislation and to be available for incorporation into industry quality-assurance programs.

Interpretation

This document has 2 parts:

[Part A](#) – general standards and guidelines that apply to all poultry, including the commercial production of poultry and racing pigeons

[Part B](#) – specific standards and guidelines that apply only to the commercial production of poultry and racing pigeons.

To the extent that there are any inconsistencies between Part A and Part B, Part B takes precedence.

Each chapter in Parts A and B contains:

- an animal welfare objective – the intended outcome for each section of the standards and guidelines
- standards (S) – the animal welfare requirements designated in this document that must be met under law for livestock welfare purposes. The standards are intended to be clear,

essential and verifiable statements. However, not all issues are able to be well defined by scientific research or are able to be quantified. Science cannot always provide an objective or precise assessment of an animal's welfare and, consequently, where appropriate science is not available, the standards reflect a value judgement that has to be made for some circumstances. Standards use the word 'must'.

- guidelines (G) – the recommended practices to achieve desirable animal welfare outcomes. Guidelines use the word 'should' and complement the standards. Noncompliance with one or more guidelines will not constitute an offence under law.
- notes — explanations of the context of the standards and guidelines.

Definitions are described in the [glossary](#). Jurisdictions may vary in their definition of specific terms under their animal welfare legislation. Every endeavour has been made to adopt terms that have nationwide application. Readers are urged to check the relevant definitions under the relevant legislation for their jurisdiction.

Further detail on livestock management practices can be found in other industry and government publications. Some standards describe the required welfare outcome without prescribing the exact actions that must be done.

The 'risk to welfare of poultry' is the potential for a factor to affect the welfare of poultry in a way that causes pain, injury, or distress. The outcome could include hypothermia, heat stress, dehydration, exhaustion, injury, disease, or death. Risks can be managed by undertaking 'reasonable actions' to prevent or reduce them.

In the context of these standards, the term 'At the first reasonable opportunity' means within the time frame that would be expected by a reasonable person with the relevant knowledge, skills and experience in the management of poultry given the urgency of the situation in relation to the welfare of poultry.

Principles for poultry welfare

Poultry in Australia are kept in home and recreational environments as well as managed in a range of farming systems such as cage, barn and free-range. To achieve improved welfare outcomes envisaged by the standards, it is important that people responsible for poultry have the necessary knowledge, experience and skills to undertake the various procedures and meet the requirements of the standards, in a manner that minimises the risk to poultry welfare.

Adherence to good animal-husbandry principles is essential to meet the welfare requirements of animals. Good husbandry principles that also meet the basic physiological and behavioural needs of poultry include:

- a level of nutrition adequate to sustain good health and welfare
- access to sufficient water of suitable quality to meet physiological needs
- social contact with other poultry
- space to stand, lie and stretch their wings and limbs and perform normal patterns of behaviour
- handling facilities, equipment and procedures that minimise stress to the poultry
- procedures to minimise the risk of pain, injury or disease
- provision of appropriate treatment, including humane killing if necessary
- minimising the risk of predation

- provision of reasonable precautions against extremes of weather and the effects of natural disasters
- selection of poultry appropriate for the farming system and the level of planned bird management to be provided
- assessment of the need to undertake any management procedures that may result in significant short-term pain or distress, against alternative strategies for the long-term welfare of the poultry
- undertaking any management procedures required for planned bird management in a manner that reduces the impact of these procedures and minimises risks to poultry welfare
- innovative husbandry, technology and housing systems which enhance bird welfare should be encouraged.

Part A General standards and guidelines for all species of poultry

A1 Responsibilities

Objective

A person knows their responsibilities for poultry welfare and is able to perform the required tasks to minimise the risk to the welfare of poultry.

Standards

SA 1.1 A person must take reasonable actions to ensure the welfare of poultry under their care.

SA 1.2 A person involved in any part of poultry care and management must be competent to perform their required task or must be supervised by a competent person.

Guidelines

GA 1.1 Reasonable actions include maintaining appropriate records for the effective management of animal welfare.

GA 1.2 Elements of responsibility for poultry management should include:

- understanding the standards and guidelines for poultry welfare
- obtaining knowledge of relevant animal welfare laws
- understanding poultry behaviour
- planning and undertaking actions for the enterprise to meet the welfare standards and address contingencies that may arise
- assessing the quantity, quality and continuity of feed and water supply
- handling to minimise stress, and using facilities and other equipment appropriately
- undertaking hygienic practices for management procedures in a manner that minimises the risks to poultry welfare
- understanding and following vaccination, chemical and medication treatment instructions for poultry
- identifying distressed, weak, injured or diseased poultry, and taking appropriate action, including seeking veterinary treatment where required
- maintaining appropriate records
- knowledge of local patterns of disease and biosecurity practices to prevent disease
- killing poultry by acceptable methods or have access to the assistance of someone who is capable and equipped to kill them appropriately.

GA 1.3 Owners, managers and stockpersons should have an appropriate staff induction program, periodically review existing practices, and be aware of new developments and training relevant to the welfare of poultry.

GA 1.4 Operational procedures should be documented and implemented.

GA 1.5 Documentary evidence of staff training and/or competence should be maintained.

GA 1.6 A person in charge should be trained in poultry husbandry and management.

A2 Feed and water

Objective

Poultry have access to feed and water to minimise the risk to their welfare.

Standards

SA 2.1 A person in charge must ensure poultry have reasonable access to adequate and appropriate feed and water.

SA 2.2 A person in charge must ensure poultry, other than newly hatched poultry up to 3 days of age or where alternate day feeding is acceptable (for meat breeders), have access to food at least once in each 24-hour period.

SA 2.3 A person in charge must ensure poultry, other than newly hatched poultry up to 3 days of age, have reasonable access to drinking water at least once in each 24-hour period.

SA 2.4 A person in charge must ensure newly hatched poultry are provided with feed and water within:

- 60 hours of take-off
- or 72 hours following take-off if provided with hydrating material, or within
- 120 hours of hatching for ratites.

SA 2.5 A person in charge must ensure that feed and water are provided to poultry in ways that minimise competition and injury.

SA 2.6 A person in charge must ensure feeding and watering systems are checked daily and confirmed to be functional.

SA 2.7 A person in charge must ensure poultry which are unable to access feed and/or water are managed, such that they are provided with feed and/or water or are treated or humanely killed at the first reasonable opportunity.

SA 2.8 A person in charge must ensure poultry are not force-fed for any reason, including pâté production, unless for therapeutic reasons under the guidance of a veterinarian.

Guidelines

Feed

GA 2.1 Feed supply for poultry should minimise harmful metabolic and nutritional conditions and be based on:

- age, body weight and/or fat/body condition score
- extra demands associated with growth and exercise
- prevailing and predicted weather conditions.

GA 2.2 The interval of time from hatching to first feed and drink should be as short as practically possible.

GA 2.3 Feed particle size should be appropriate for the age and size of the bird.

GA 2.4 Poultry access to contaminated and spoilt feed, toxic plants and harmful substances should be avoided or managed.

- GA 2.5** Feeders should be cleaned and maintained regularly and kept indoors away from adverse weather, vermin, wild birds and other livestock.
- GA 2.6** Feed should be assessed for suitability and safety.
- GA 2.7** Major changes in diet should be introduced over an appropriate length of time and be closely monitored.
- GA 2.8** Flock body weight and egg production (where appropriate) should be monitored regularly.
- GA 2.9** Feeding and watering facilities should be appropriately spaced throughout the housing area. Their design, position and height should allow sufficient space for birds to access feed and water with minimal effort and using normal posture.

Water

- GA 2.10** Assessment of water requirements for construction of poultry watering facilities should consider:
- daily requirements and total annual requirements
 - flow rates needed for peak, short-term demand
 - construction to prevent temperature build-up
 - quality and biosecurity risk.
- GA 2.11** Water within drinker lines should be regularly flushed and monitored.
- GA 2.12** Uncontrolled water sources (for example, bores, dams, open stock troughs creeks) used as drinking water sources should be treated as appropriate to improve quality and minimise biosecurity risks.
- GA 2.13** Medicated water systems should be closely monitored to ensure poultry are correctly dosed.
- GA 2.14** Water should be available continuously, except where water is withheld for no longer than 2 hours prior to water vaccination, medication, or prior to or during catching and during litter amendment activities.

A3 Risk management of extreme weather, natural disasters, disease, injury and predation

Objective

Poultry are managed to minimise the impact of threats to their welfare, including extremes of weather, natural disasters, disease, injury and predation.

Standards

- SA 3.1** A person in charge must take reasonable actions to protect poultry from threats, including extremes of weather, drought, fires, floods, disease, injury and predation.
- SA 3.2** A person in charge must ensure the inspection of poultry at least daily, at a level and frequency appropriate to the management system, age of birds, environmental conditions and the risk to the welfare of poultry.
- SA 3.3** A person in charge must ensure appropriate action is taken for sick, injured or diseased poultry at the first reasonable opportunity.

SA 3.4 A person in charge of poultry kept in commercial production systems must monitor and record mortalities, including culls with the cause recorded if known.

SA 3.5 A person in charge must ensure poultry have access to appropriate shelter from adverse weather that is likely to cause heat or cold stress, and to minimise the risk of predation.

SA 3.6 A person must ensure dead poultry are removed and disposed of at least daily and in a way that minimises disease risks.

SA 3.7 By 1 July 2025 a person in charge must ensure firefighting equipment is available and maintained for all indoor housing systems.

SA 3.8 A person in charge of planning or constructing new buildings and yards for poultry (including electrical and fuel installations) must take reasonable actions to minimise fire risk, including where practicable, using materials with high fire resistance.

SA 3.9 A person in charge must develop a written contingency plan to minimise the impact of adverse events on poultry welfare.

Guidelines

Contingency planning

GA 3.1 Written contingency plans should address events which could result in a potentially significant welfare impact on poultry.

GA 3.2 A contingency plan should include emergency contact details and consider adverse events, including:

- electrical power or systems failure
- breakdown or mechanical failure affecting feed, water or ventilation
- adverse weather, specifically conditions that predispose poultry to heat or cold stress
- fire and flood
- insufficient supply of feed or water
- disease outbreak or injury
- emergency killing and disposal
- other issues specific to the enterprise or poultry being managed.

GA 3.3 Buildings and yards should have sufficient exits to facilitate evacuation in an emergency.

Weather and natural disasters

GA 3.4 Poultry handling should be minimised during extremely hot weather.

GA 3.5 Poultry should be managed to minimise heat stress (signs of which may include panting or wings outstretched) or cold stress (huddling).

GA 3.6 Automated sprinklers, misting systems, evaporative cooling systems or other effective heat dissipation systems should be installed in all indoor housing systems.

Inspections

GA 3.7 Sufficient inspections should be undertaken during which temperature, levels, availability of feed, feeding systems, water and all parts of the ventilation system are checked, and

where problems are encountered, appropriate remedial action should be taken to protect the welfare of poultry.

GA 3.8 Inspections should be documented.

GA 3.9 Inspection should be done in such a way that poultry are not unnecessarily disturbed, for example, animal handlers should move quietly and slowly through the flock.

GA 3.10 All alarm systems, firefighting equipment and emergency power supplies should be tested regularly, and test results documented.

GA 3.11 Poultry distribution and behaviour should be monitored during daily inspections and corrective action should be taken to adjust light, temperature, ventilation, bedding condition and feed and water supply as required.

Disease and injury

GA 3.12 Biosecurity programmes should be implemented. These programmes should address the control of the major routes for disease and pathogen transmission:

- direct transmission from other poultry, domesticated and wild animals, and humans
- fomites (for example, equipment, facilities, and vehicles)
- vectors (for example, rodents and arthropods such as insects)
- aerosols
- water supply
- feed.

GA 3.13 Appropriate veterinary advice on poultry disease diagnosis, prevention or treatment should be sought as required.

GA 3.14 In all systems, mortalities, including culls, should be monitored and recorded, and a cause determined if possible.

GA 3.15 Poultry should be vaccinated in accordance with veterinary advice.

GA 3.16 Internal and external parasites should be monitored and managed.

GA 3.17 Daily monitoring of poultry should occur to identify early signs of injurious pecking, which may include:

- pecking directed at the body feathers of other birds
- vent pecking
- feather eating
- feather damage or bare areas, particularly around the back and tail
- signs of persistent aggression, such as pecking directed at the head
- chasing other birds.

GA 3.18 Injurious pecking and cannibalism risk should be managed. Prevention and management methods include:

- infrared beak trim at day old
- reducing light intensity
- reducing temperature

- providing foraging materials
- modification of nutrition and feeding practices
- reducing stocking density
- selecting the appropriate genetic stock
- isolation of affected birds.

GA 3.19 Appropriate action for sick, diseased or injured poultry should incorporate one or more actions, including:

- seeking veterinary advice
- treatment and isolation of sick birds
- humane killing.

Lameness

GA 3.20 Poultry should be monitored for incidence of lameness and the cause of lameness investigated and addressed.

A4 Facilities and equipment

Objective

Facilities and equipment are appropriate to minimise the risk to the welfare of poultry.

Standards

SA 4.1 A person in charge must take reasonable actions in the construction, maintenance and operation of facilities and equipment to ensure the welfare of poultry.

SA 4.2 A person in charge must take reasonable actions to construct, maintain and operate facilities and equipment that ensure poultry can be inspected.

SA 4.3 A person in charge must ensure the design, size and maintenance of the openings and doors of cages allow poultry to be placed in or removed without injury or unnecessary distress.

SA 4.4 A person in charge must ensure housing systems are arranged to minimise contamination of poultry in the lower tiers from excreta from above.

SA 4.5 A person in charge must ensure all poultry housing, including mobile housing, must provide:

- adequate ventilation
- protection from extremes of weather
- sufficient space to allow normal postures
- reasonable access to feeding and water facilities.

SA 4.6 A person in charge must ensure openings provided for poultry to access an outside area are designed and positioned to:

- allow the birds to maintain a normal posture
- not obstruct movement of birds
- minimise the risk of smothering or injury.

SA 4.7 A person in charge must ensure any slatted, wire or perforated floors are constructed to support the forward-facing toes, prevent entrapment and facilitate removal of manure.

SA 4.8 By 1 July 2025 a person in charge of poultry (excluding layer hens in commercial production) must provide reasonable access to appropriate substrate for pecking, foraging and scratching.

SA 4.9 A person in charge must not allow the excreta of poultry to excessively accumulate to the stage that it is likely to compromise poultry health and welfare.

SA 4.10 Where nest areas are provided, a person in charge must ensure that the nest areas are designed and positioned to encourage use, are of adequate size and number to meet the laying needs of all poultry, and ensure poultry have access without undue competition.

SA 4.11 Where single nest areas are provided, a person in charge must ensure there is sufficient space for the bird to enter, sit and turn around, if necessary, to exit.

SA 4.12 Where perches and/or platforms are used, a person in charge must ensure that they are constructed, positioned and maintained to:

- be raised above and not flush with floor areas
- allow birds to access them at all times, other than during the first week of life, on the day of pick-up or during litter conditioning
- allow birds to perch in a normal posture
- provide appropriate support for the bird's feet
- minimise the risk of injury
- minimise vent pecking by birds below and/or behind
- minimise soiling of birds below.

Guidelines

GA 4.1 Facility construction or modification should take into account:

- poultry behaviour
- topography (location and drainage)
- flood and fire risk
- climate
- purpose
- space allowance
- feed and water requirements
- shade/shelter
- surface materials
- cleaning and waste disposal.

GA 4.2 Facilities should be free of protrusions and obstacles that are likely to cause injury.

GA 4.3 Facilities should be subject to a pest (for example, wild birds and rodents) control plan.

GA 4.4 A maintenance programme should be in place for all equipment if the failure of which can jeopardise poultry welfare.

GA 4.5 Poultry should be given sufficient space to perform dust-bathing behaviours.

GA 4.6 Provision of environmental enrichment should be considered, taking into account potential risks and benefits to poultry welfare. Such practices may include provision of:

- bales of hay or straw
- perches and platforms
- objects for pecking
- dust-bathing materials.

Housed poultry

GA 4.7 Exposure of poultry to stimuli that might cause fear and distress should be minimised where possible. Ventilation fans, feeding machinery or other indoor or outdoor equipment should be constructed, placed, operated and maintained in such a way that they cause the least possible amount of fear and distress.

GA 4.8 Poultry should have enough vertical and horizontal space available to stretch to their full height and flap their wings.

GA 4.9 When new buildings are planned, existing buildings modified or equipment purchased, advice on aspects that can affect welfare should be sought from suitably qualified and experienced persons.

GA 4.10 Where poultry are brooded on wire, temporary supportive flooring material, such as paper or matting, should be provided during the early brooding period.

GA 4.11 Where claw-shortening devices are provided, a person in charge should ensure they are provided in such a way that allows birds to utilise them through to the day of pick-up.

Perches and platforms

GA 4.12 Perches and platforms should be without sharp edges.

GA 4.13 Perching areas should be designed to allow poultry to grip without risk of trapping their claws.

GA 4.14 If ramps are provided for birds to move between tiers in tiered housing, they should:

- be made from non-slip material
- be located throughout the facility to allow easy access for birds
- allow for minimal effort and ease of bird movement between tiers
- be cleaned after each batch.

GA 4.15 There should be sufficient perches or platforms for all birds to roost.

Nests

GA 4.16 If nest areas are provided, they should be easily accessible and should not be so high above the floor level that poultry may be injured when ascending or descending.

GA 4.17 Nest litter, where used, should be kept clean, dry, friable and moisture adsorbent. Nest liners should be kept clean and dry.

GA 4.18 The construction and positioning of nest areas should be such that they do not trap heat.

A5 Management of outdoor systems

Objective

Management of outdoor systems is appropriate to minimise the risk to the welfare of poultry.

Standards

SA 5.1 A person in charge must ensure that poultry are adequately feathered before access to an outdoor area.

SA 5.2 A person in charge must ensure poultry kept in housing with access to an outdoor area have ready access to the housing and shaded areas.

SA 5.3 By 1 July 2025 a person in charge of poultry kept in housing with access to an outdoor area must encourage use of the outdoor range by providing:

- access to appropriately located shade and shelter from predators
- opportunities to perform foraging and scratching behaviours
- reasonable number and size of access points.

SA 5.4 A person in charge must not keep poultry on land which has become contaminated with poisonous plants or chemicals which could compromise the health of poultry.

SA 5.5 A person in charge must take reasonable actions to minimise access to poultry feed and drinking water by wild birds.

SA 5.6 By 1 July 2032 a person in charge must ensure that poultry, other than ratites, are able to be confined to manage welfare risks to birds in the outdoor area. Confinement must comply with housing standards in [Chapter 4](#), as well as stocking densities for the relevant species.

Guidelines

GA 5.1 A management plan should be developed to actively manage and maintain the outdoor area to:

- encourage birds to access all areas
- control disease and parasites
- avoid injury or mortality
- prevent land degradation
- provide adequate drainage to prevent muddy conditions
- avoid accumulation of water
- discourage contact with wild birds and their droppings
- minimise the risk of predation
- minimise the risk of fire.

GA 5.2 Shelter should be provided in the outdoor area to minimise the threat from predators.

GA 5.3 Shade and shelter in an outdoor area can be provided by vegetation such as shrubs or trees and structures such as shade cloth, straw bales and shipping pallets on blocks.

- GA 5.4** Vegetation should be provided on the range, including mature trees, shrubs and forage such as grasses and ground vegetation.
- GA 5.5** Pop holes should have sufficient width and height to allow poultry to enter and exit while maintaining normal posture without contacting the sides.
- GA 5.6** Ramps should be constructed and maintained to minimise slippage or injury and to allow poultry to move freely.
- GA 5.7** At least 8m² of natural and/or artificial overhead shade and shelter per 1,000 birds should be provided and appropriately distributed across the outdoor area.
- GA 5.8** When birds are observed not to be using shade or shelter structures, action should be taken to encourage use by modifying facilities if required.
- GA 5.9** Feed and open drinking water should not be provided in the outdoor area to discourage wild birds.
- GA 5.10** Outdoor area enhancement should be provided to allow poultry to feel safe outdoors and be encouraged to move away from the housing openings.
- GA 5.11** Poultry should be confined at night to mitigate predation and biosecurity risks.
- GA 5.12** The area around openings to outdoor areas should be kept clean and well drained.

A6 Lighting

Objective

Lighting is appropriate to minimise the risk to the welfare of poultry.

Standards

- SA 6.1** A person in charge must ensure that the light intensity on poultry is adequate to allow poultry and equipment to be inspected and any problems to be identified.
- SA 6.2** By 1 July 2025 a person in charge must ensure that the light intensity during light periods for young poultry for the first 3 days after hatching is at least 20 Lux at bird level.
- SA 6.3** By 1 July 2025 a person in charge must ensure that the light intensity for poultry is at least 10 lux at bird level during light periods, except under veterinary supervision to control an outbreak of pecking and/or cannibalism for a limited period.
- SA 6.4** A person in charge must ensure poultry are not exposed to continuous light or darkness for any 24-hour period, except for young birds raised under heat lamps or in brooders.
- SA 6.5** By 1 July 2025 a person in charge must ensure poultry are provided a minimum total of at least 6 hours of darkness within a 24-hour period with at least one uninterrupted period of darkness of at least 4 hours, except:
- birds up to 7 days of age
 - to prevent huddling or clumping behaviours during very hot weather
 - poultry on the day of pick-up
 - laying and breeder birds up to 16 weeks of age
 - during a disease outbreak under veterinary supervision.

SA 6.6 A person in charge must ensure chicks up to 7 days old have a minimum of 1 hour of continuous darkness for any 24-hour period, except for young birds raised under heat lamps or in brooders.

Guidelines

GA 6.1 With the exception of nest areas, natural and artificial lighting should be evenly distributed to facilitate the distribution of poultry over the floor area and avoid overcrowding.

GA 6.2 Enterprises where poultry are housed indoors should have access to equipment to measure light intensities and keep appropriate records.

GA 6.3 Lighting should be managed to avoid sudden changes in light intensity.

A7 Temperature and ventilation

Objective

Temperature and ventilation are appropriate to minimise the risk to the welfare of poultry.

Standards

SA 7.1 A person in charge must ensure airflow and temperature in housing facilities minimises the risk to poultry welfare from heat, cold, humidity, dust or noxious gases.

SA 7.2 A person in charge must ensure that mechanically ventilated sheds have:

- a back-up power supply that is tested in accordance with manufacturers' recommendations
- automatic alarm systems to warn immediately of ventilation failure
- a system in place to respond and take appropriate corrective action.

SA 7.3 By 1 July 2025 a person in charge of poultry in sheds used for commercial production must monitor ammonia levels and ensure immediate corrective action is taken if ammonia levels exceed 15 ppm at bird level in sheds.

SA 7.4 A person must take immediate corrective action if signs of poor air quality (swollen and red eyelids, reluctance to open eyes or panting) are observed.

SA 7.5 A person in charge must ensure brooder areas are at an appropriate temperature before placement of day-old poultry and that the temperature is managed at a level that minimises the risk to the welfare of poultry.

Guidelines

Temperature

GA 7.1 Rapid changes in temperature should be avoided where possible.

GA 7.2 Temperature and poultry behaviour should be monitored more frequently at high stocking densities and during extreme weather conditions.

GA 7.3 Corrective action should be taken immediately if signs of stress (panting and wing extension due to heat or huddling due to cold) are observed.

Ventilation

GA 7.4 Extra attention should be paid to ventilation at high stocking densities and during extreme weather conditions.

GA 7.5 Air quality parameters, such as temperature, humidity and ammonia levels, should be monitored and recorded daily. Poultry should be monitored for eye and nasal irritation that might indicate ammonia, dust or other air-quality problems.

GA 7.6 Dust levels should be kept to a minimum by maintaining appropriate ventilation, and humidity levels and appropriate litter management.

GA 7.7 Alarm systems in mechanically ventilated sheds should have:

- back-up power
- the ability to detect if the shed temperature is too high or too low and if there is a power failure in any power supply phase
- appropriate settings so that alarms are easily heard
- all-hours response availability with restoration of power or emergency ventilation within 15 minutes.

A8 Litter management

Objective

Where litter is used, management is appropriate to minimise the risk to the welfare of poultry.

Standards

SA 8.1 Where litter is used, a person in charge must ensure litter material is suitable for the species and of a good quality.

SA 8.2 Where litter is used, a person in charge must take reasonable measures to minimise the risk of contamination of litter with toxic agents.

SA 8.3 Where litter is used, a person in charge must manage litter to minimise caking, dustiness or wetness that impacts on the welfare of poultry.

Guidelines

GA 8.1 Where litter is re-used at the end of a batch, it should be treated to address pathogen loads and ammonia concentrations and be dry and friable at bird placement.

GA 8.2 Where appropriate, poultry housed indoors should have access to a littered area, the litter occupying at least one third of the ground surface in order for birds to forage and dust-bathe. Litter should be at a depth suitable to the species.

A9 Handling and husbandry

Objective

Handling and husbandry practices are appropriate and minimise the risk to the welfare of poultry.

Standards

SA 9.1 A person must manage and handle poultry in a manner that minimises pain, stress, or injury to birds.

SA 9.2 A person must ensure care is taken in catching poultry to avoid creating panic and subsequent injury or smothering of the birds.

- SA 9.3** A person must free entrapped poultry at the first reasonable opportunity and, if possible, prevent this situation from recurring.
- SA 9.4** A person in charge must ensure that non-fasting induced moulting is not practiced except in exceptional circumstances and where approved by the relevant minister or delegate.
- SA 9.5** Fasting induced moulting must not be practiced.
- SA 9.6** A person in charge must ensure that where wing and leg bands are used, they are checked regularly and where necessary, loosened or removed.
- SA 9.7** A person other than a veterinarian must not perform pinioning, castration or devoicing, on poultry.
- SA 9.8** A person must not perform desnooding or dubbing for cosmetic purposes on poultry.
- SA 9.9** A person must only perform desnooding, despurring and web marking on day old hatchlings selected as potential breeders.
- SA 9.10** A person must only perform toe trimming and dubbing on day-old hatchlings selected as potential breeders, except under veterinary advice.
- SA 9.11** A person must use appropriate pain relief when carrying out painful procedures on poultry, where a suitable product is registered and available.
- SA 9.12** A person must not pluck live poultry other than to remove a small area of feathers for the purpose of facilitating a medical or surgical procedure.

Artificial breeding

- SA 9.13** A person performing artificial breeding procedures on poultry must have the relevant knowledge, experience and skills, or be under the direct supervision of a person who has the relevant knowledge, experience, and skills.
- SA 9.14** A person performing artificial breeding procedures on poultry must take reasonable actions to minimise pain, distress or injury.

Beak trimming

- SA 9.15** A person in charge must develop and implement strategies for managing injurious pecking that minimise the need for beak trimming.
- SA 9.16** By 1 July 2025 beak trimming when undertaken in a hatchery must be done using an infrared beam within 24 hours of take-off.
- SA 9.17** By 1 July 2025 hot-blade beak trimming must not be used, except during outbreaks of injurious feather pecking and only by skilled operators using well maintained equipment and only under veterinary advice.
- SA 9.18** A person must use appropriate tools and methods to trim the beaks of poultry.
- SA 9.19** A person using beak trimming methods must ensure no more than 30% of the upper and lower beak is removed.

Blinkers

- SA 9.20** A person must not use blinkers, contact lenses or beak bits on poultry unless under veterinary advice.

Hatching systems

SA 9.21 A person in charge must monitor hatching systems daily including back-up systems and/or alarms.

SA 9.22 A person must monitor incubators during hatching, and hatchlings that are found outside the trays must be returned to the tray or placed in brooders as soon as possible.

SA 9.23 A person must ensure unhatched embryos are humanely and rapidly killed.

SA 9.24 A person in charge must ensure cull or surplus hatchlings awaiting disposal are treated humanely and are humanely killed at the first reasonable opportunity.

Guidelines

Handling and management

GA 9.1 The stocking density should be reviewed regularly and adjusted, considering factors such as breeding company recommendation, species, age, flock size, house or paddock conditions, behavioural needs and the likely occurrence of disease.

GA 9.2 Poultry should be managed at a stocking density that takes into account:

- growth rate
- competition for space
- access to feeders and water
- air temperature and quality
- humidity
- litter quality
- housing system
- production system
- biosecurity strategy
- genetic stock
- market age and weight.

GA 9.3 Manual handling of poultry should be kept to a minimum during stocking and depopulation.

GA 9.4 A person should not carry birds by one leg.

GA 9.5 Poultry should be released by setting them down on their feet or from low heights that enable them to land normally, feet first. Poultry should not be released in a manner that requires flying.

GA 9.6 Mechanical catchers should be designed, operated, and maintained to minimise injury, stress and fear to the birds. A contingency plan is advisable in case of mechanical failure.

GA 9.7 Poultry that are identified as unfit or injured before or during the catching procedure should be humanely killed immediately by an appropriately trained and competent operator.

GA 9.8 A veterinarian should be consulted about the availability of appropriate pain relief products that can be prescribed for use in painful procedures.

GA 9.9 Pullets should be reared in similar conditions as the intended production farm.

GA 9.10 Where poultry are moved on conveyor belts, the maximum height difference between consecutive conveyor belts should not exceed 40 cm.

GA 9.11 Sex ratios in breeding flocks should be monitored and adjusted to minimise aggressive or dominant behaviours.

GA 9.12 Cutting of feathers, including the wing feathers, from live birds should only be carried out by a person who has the relevant experience, knowledge and skills in the procedure.

GA 9.13 Feathers should be cut no closer than 10 mm to the bloodlines. Feathers without a ripe bloodless clearance above the bloodline should be left on the bird.

GA 9.14 Guardian and herding animals used to protect and move flocks should be appropriately trained to not harm the birds.

GA 9.15 The use of handling aids such as crooks should be limited to the minimum needed to complete the task and not replace good poultry-handling skills.

Beak trimming

GA 9.16 New, more humane technologies and methods for performing physical alterations and reducing aggressive behaviours should be adopted as they become available.

GA 9.17 Beak trimming, other than infrared, should only be carried out under veterinary advice by trained and skilled personnel using methods which minimises pain.

GA 9.18 Strategies to minimise injurious feather pecking and avoid beak trimming should be used including appropriate genetic selection of birds, lighting, feed control and the provision of environmental enrichment and pecking objects.

Induced moulting

GA 9.19 Induced non-fasting moulting should only be considered in exceptional circumstances where there is a supply shortage of eggs.

GA 9.20 Induced non-fasting moulting should not result in birds losing 23% or more of their body weight.

Identification

GA 9.21 Identification devices permanently or temporarily attached to poultry should be lightweight and safe to both the identified bird and to other birds in the flock.

Hatching systems

GA 9.22 Hatching trays with live young birds should be moved smoothly. Trays should be tipped to remove chicks in such a way that the birds do not become trapped or smothered.

GA 9.23 When in-ovo sexing technology becomes commercially available, it should be used to avoid the culling of hatched male layer chicks.

A10 Humane killing

Objective

Where it is necessary to kill poultry outside of slaughtering establishments, it is done promptly, safely and humanely.

Standards

SA 10.1 A person in charge must ensure killing methods for poultry result in rapid death, or rapid loss of consciousness followed by death while unconscious.

SA 10.2 A person must have the relevant knowledge, experience and skills to be able to humanely kill poultry, or be under the direct supervision of a person who has the relevant knowledge, experience and skills, unless:

- the poultry are suffering and need to be killed to prevent undue suffering
- there is an unreasonable delay until direct supervision by a person who has the relevant knowledge, experience and skills becomes available.

SA 10.3 A person in charge of poultry which are suffering from severe distress, disease, or injury and that cannot be reasonably treated, or which have no prospect of recovery, must ensure that the poultry are humanely killed at the first reasonable opportunity.

SA 10.4 A person must not use equipment that kills poultry by crushing the neck.

SA 10.5 A person must not cause cervical dislocation by spinning the bird by the head.

SA 10.6 A person killing poultry must take reasonable action to confirm the bird is dead.

SA 10.7 A person in charge must adhere to the standards for humane killing (SA 10.1 to SA 10.6) during emergency depopulation, except in a declared emergency animal disease situation where the Chief Veterinary Officer (or equivalent) is satisfied that a welfare assessment has been conducted and all permitted killing methods have been explored and found impractical.

Guidelines

GA 10.1 Humane killing protocols should be documented.

GA 10.2 Acceptable methods for the humane killing of poultry include:

- cervical dislocation or decapitation for poultry less than 5 kgs
- injectable euthanasia solution
- stunning by blunt trauma followed by decapitation or bleeding out for poultry over 5 kgs
- stunning with a bolt or pneumatic device designed for poultry followed by bleeding out
- killing with a bolt or pneumatic device designed to stun-kill poultry
- electrical stunning followed by an acceptable killing method
- modified-atmosphere killing
- firearm via a headshot for larger species
- immediate fragmentation/maceration for unhatched eggs and day-old chicks.

GA 10.3 Gaseous modified atmosphere killing (MAK) should only be conducted under veterinary advice.

GA 10.4 When cervical dislocation is used, it should result in complete dislocation of the head or brain from the spinal cord causing cardiac and respiratory arrest and leading to death.

GA 10.5 When using gaseous modified atmosphere killing, the procedure should ensure the collapse of every bird within 35 seconds of exposure to the gas. Poultry should remain in the gas for at least a further 5 minutes following collapse.

GA 10.6 If using CO²-based modified atmosphere killing as an on-farm depopulation technique, up to 30% CO² should be applied until poultry are unconscious, followed by higher concentrations until death.

GA 10.7 As practical alternatives to CO² based modified atmosphere killing are developed for on-farm depopulation, such as the use of inert gases or development of units that allow progressive hypobaric hypoxia including low-atmosphere pressure stunning (LAPS), these should be used.

GA 10.8 When using gaseous modified atmosphere killing to kill poultry, birds should not be placed above the gas level or on top of conscious birds in the container.

Confirming death in poultry after humane killing

GA 10.9 Three or more signs should be observed to determine whether the method used for killing poultry has caused death, including:

- absence of a corneal 'blink' reflex when the eyeball is touched
- maximum dilation of the pupil
- absence of rhythmic respiratory movements for at least 5 minutes
- in case of cervical dislocation, manual verification of a clear gap of skin between the skull and the neck
- absence of a nictitating membrane (third eyelid) reflex
- loss of consciousness and deliberate movement, including eye movement.

Bleeding out (exsanguination)

GA 10.10 Bleeding out should only be done on unconscious poultry by cutting the main blood vessels in the neck using a suitable, sharp blade.

Part B Commercial production standards and guidelines for poultry

General standards and guidelines in Part A also apply to each species listed in Part B.

B1 Laying chickens

Standards

General standards in [Part A](#) also apply to laying chickens.

SB 1.1 A person in charge must ensure the minimum height of all cages is 55 cm over the useable space.

SB 1.2 A person in charge must ensure that if multi-level housing systems are used:

- each level is easily accessible to the hens
- headroom between the levels is a minimum height of 45 cm
- all levels are accessible to stock workers to observe and reach birds which are sick or injured
- feeding and watering facilities are distributed to provide ready access to all hens.

SB 1.3 A person in charge must ensure that from 16 weeks, where hens are housed under artificial light, lighting schedules provide a minimum of 4 hours of continuous darkness and at least 6 hours total darkness in each 24-hour period, except under the circumstances described in [SA6.5](#).

SB 1.4 A person must not lift or carry laying chickens by the head, neck, wings, feathers or tail feathers unless otherwise supported by the breast, except if lifted and carried by the base of both wings.

SB 1.5 Where a veranda is provided, it must be designed, constructed and maintained to encourage birds to access the veranda area and to provide:

- adequate shade and shelter
- adequate air exchange to manage airflow, temperature, humidity and dust
- suitable substrate.

SB 1.6 A person in charge must provide layer hens with access to nest areas from point of lay.

SB 1.7 A person in charge must provide a minimum of one single nest area for every 7 birds or 1 m² nesting area for every 120 birds from point of lay.

SB 1.8 A person in charge must provide hens access to perches or platforms.

SB 1.9 A person in charge must ensure perch or platform space for hens is a minimum of 15 cm per laying hen.

SB 1.10 A person in charge must provide hens with access to a scratch area and/or claw-shortening device as well as appropriate substrate for pecking, foraging and scratching, unless the birds have access to an outdoor area.

Stocking densities cage systems

SB 1.11 A person in charge must ensure that all caged laying chickens have:

- 750 cm² of useable space per bird if kept in a cage of 2 or more birds
- 1,000 cm² of useable space if a bird is kept in a single cage.

SB 1.12 All cage-based housing facilities installed after 1 July 2022 must meet the requirements of standards SB1.1 and SB1.6 to SB1.11.

SB 1.13 A person in charge of layer hens must ensure that any cage-based housing system meets the requirements of standards SB1.1 and SB1.6 to SB1.11:

- from 1 July 2032, if the cage system was installed before the close of 31 December 2011
- from 1 July 2033, if the cage system was installed after 31 December 2011 but before the close of 31 December 2012
- from 1 July 2034, if the cage system was installed after 31 December 2012 but before the close of 31 December 2013
- from 1 July 2035, if the cage system was installed after 31 December 2013 but before the close of 31 December 2014
- from 1 July 2036, if the cage system was installed after 31 December 2014.

Stocking densities non-cage systems

SB 1.14 A person in charge must not exceed a stocking density in ideal conditions indoors of 30 kg/m² (measured as bird density in the useable space) for rearing laying pullets and for managing adult laying chickens.

Guidelines

General guidelines that are recommended in Part A also apply to laying chickens.

GB 1.1 The slope of the floor should not exceed 8 degrees. If mesh flooring is used, the mesh size should be less than 25 mm × 25 mm.

GB 1.2 If slatted or perforated flooring is used, the size of the dimensions of the gaps or perforations should be no greater than 25 mm.

Lighting

GB 1.3 The lighting system should provide a minimum period of 8 hours of continuous artificial or natural lighting per day.

Litter

GB 1.4 For non-cage systems, unless the poultry can access outdoor areas the litter area should provide sufficient space to allow at least one third of the flock to forage and dust-bathe at any one time.

GB 1.5 When using litter, poultry should be given continuous access to litter as soon as possible but no later than 3 weeks following production site placement allowing for a period in which to train birds to use the nests.

Nest areas

GB 1.6 If nests are provided, there should be a sufficient number of appropriately sized nests for the strain and number of hens in each group.

GB 1.7 Nest areas should be enclosed and provide a suitable floor substrate to encourage nesting behaviour.

GB 1.8 Nest area flooring should not consist of wire or plastic-coated wire.

GB 1.9 Nest areas should be kept clean and operational.

GB 1.10 During nest-area training, nest-area lighting should:

- only be turned on in the morning
- be turned off in the afternoon
- not be used once birds have learnt to lay in the nest.

GB 1.11 Alternatives to electric wires should be considered. If electric wires are used along walls and corners to prevent floor eggs, these should:

- only be turned on in the morning during nest-area training
- be turned off in the afternoon
- not be used once birds have learnt to lay in the nest.

GB 1.12 Where a large number of floor eggs are found, efforts should be made to identify if there is a problem with the nest areas and to rectify the problem.

Veranda

GB 1.13 Birds should be given access to the veranda as soon as possible but no later than 3 weeks following placement allowing for a period in which to train birds to use the nests.

GB 1.14 The veranda should be designed, constructed and maintained to provide shade, natural light and good airflow.

GB 1.15 The useable floor area of the veranda should provide sufficient space to allow at least one third of the flock to forage and dust-bathe at any one time.

GB 1.16 The roof of the veranda should be waterproof.

GB 1.17 The design, number and position of openings that provide access to the veranda should:

- be of a minimum height and width and free of objects or protrusions to allow birds to pass through using normal posture
- be evenly distributed along the entire length of the shed
- give birds a clear view of the veranda from within the shed
- avoid birds obstructing the movement of other birds
- avoid injury to birds
- take into account prevailing weather conditions
- allow for unrestricted entry/egress to the veranda from the shed.

GB 1.18 Any ramps for birds to access the veranda should:

- be a maximum of a minimal slope to allow birds to walk up and down the ramp with normal gait
- provide a non-slip surface.

Outdoor area

GB 1.19 A daily record specifying the date and times of availability of access to the outdoor area should be kept.

GB 1.20 Birds should be observed to be using shade/shelter structures and action taken to modify facilities if required.

GB 1.21 Feed and drinking water should not be provided in the outdoor area.

GB 1.22 The opening that provides access between indoor and outside areas (pop hole) should be at least 35 cm high and 40 cm wide with a combined total width of all openings being 2 m for each 1,000 birds.

B2 Meat chickens

Standards

General standards in [Part A](#) also apply to meat chickens.

SB 2.1 A person in charge must ensure that, after 7 days of age, lighting patterns must encourage activity and provide a minimum period of 4 hours of continuous darkness with 6 hours of total darkness each day – except on the day of pick-up and during very hot weather.

SB 2.2 A person must not perform beak trimming or toe trimming on meat chickens, unless under veterinary advice.

SB 2.3 A person must not lift or carry meat chickens by the head, neck, wings, feathers, or tail feathers unless otherwise supported by the breast, except if lifted and carried by the base of both wings.

SB 2.4 Where a veranda is provided, it must be designed, constructed, and maintained to encourage meat chickens to access the veranda area, and to provide:

- adequate shade and shelter
- adequate air exchange to manage airflow, temperature, humidity and dust
- suitable substrate.

Maximum acceptable live-weight densities for meat chickens (non-cage systems)

SB 2.5 A person in charge must ensure the maximum stocking densities for meat chickens do not exceed those shown in Table 4.

Table 4 Space allowance requirements for meat chickens

Housing type	Minimum requirements	Maximum density
Tunnel ventilated or extractive systems	Evaporative cooling system capable of one air exchange per minute	38 kg/m ² year-round
Other mechanically ventilated	Stirring fans and water-based cooling system	38 kg/m ² in winter 36 kg/m ² in summer
Non-mechanically ventilated	n/a	28 kg/m ² year-round

n/a Not applicable

Note: Winter is pick-up occurring between 1 April and 30 September. Summer is pick-up occurring between 1 October and 31 March.

SB 2.6 A person in charge of chickens over 10 days old, if kept at a stocking density greater than 34 kg/m², must:

- monitor and record the relative humidity, ammonia and maximum temperature levels daily
- take reasonable action to reduce stocking density if relative humidity, temperature and ammonia levels consistently exceed over 3 or more consecutive days
 - a relative humidity of 70%
 - a temperature of 32°C
 - ammonia levels of 15 ppm
- maintain records of stocking density, relative humidity, ammonia, and maximum temperature levels for 2 years.

SB 2.7 A person must ensure birds have enough space to stand, turn around and flap their wings.

SB 2.8 A person must ensure space allowance is sufficient to allow all birds to be able to sit at the same time.

SB 2.9 A person must ensure water is available until the start of pickup.

Guidelines

General guidelines that are recommended in Part A also apply to meat chickens.

GB 2.1 Catching of meat chickens should be carried out under dim or blue light.

GB 2.2 If slatted or perforated plastic flooring is used, the smaller of the dimensions of the gaps or perforations should be no greater than 25 mm.

GB 2.3 Ongoing health and/or injury data should indicate that the stocking density does not compromise bird welfare.

GB 2.4 Meat chickens should be inspected at least twice daily.

GB 2.5 When considering stocking densities for future flocks, records of previous flocks should be reviewed, including post-slaughter data from processing plants of feet, hock, and breast lesions.

Birds with access to outdoor areas

GB 2.6 Feed and drinking water should not be provided in the outdoor area.

GB 2.7 The opening that provides access between indoor and outside areas ('pop hole') should be at least 35 cm high and 40 cm wide with a combined total width of all openings being 2 m for each 1,000 birds.

GB 2.8 A daily record specifying the dates and times of availability of access to the outdoor area should be kept.

GB 2.9 The design, number and positioning of openings that provide access to the outdoor area should:

- be of a minimum height and width and free of objects or protrusions to allow birds to pass through using normal posture
- be evenly distributed along the entire length of the shed
- give birds a clear view of the outdoor area from within the shed
- avoid birds obstructing the movement of other birds
- avoid injury to birds
- take into account prevailing weather conditions
- should allow for unrestricted entry/egress to the outdoor area from the shed.

GB 2.10 Any ramps for birds to access the outdoor area should:

- be of a minimal slope to allow birds to walk up and down the ramp with normal gait
- provide a non-slip surface.

Controlled environment housing

GB 2.11 Daily water intake should be monitored and recorded.

GB 2.12 Alarms should be installed and maintained to alert personnel when housing environmental conditions are out of acceptable ranges.

B3 Meat and laying chicken breeders

'Breeders' include (*Gallus gallus*) being reared and managed for purposes of breeding either laying chickens or meat chickens.

Standards

General standards in [Part A](#) also apply to meat and laying chicken breeders.

SB 3.1 A person in charge must ensure that if cages are used, the minimum height of all cages is 55 cm over the useable space.

SB 3.2 A person in charge must ensure that if multi-level housing systems are used:

- each level is easily accessible to the hens
- headroom between the levels is a minimum height of 45 cm
- all levels are accessible to stock workers to observe and reach birds that are sick or injured
- feeding and watering facilities are distributed to provide equal and ready access for all hens.

SB 3.3 A person in charge must ensure that from 16 weeks, where hens are housed under artificial light, lighting schedules must provide a minimum of 4 hours of continuous darkness and at least 6 hours total darkness in each 24-hour period, except under the circumstances described in [SA 6.5](#).

SB 3.4 A person must not lift or carry meat and laying chicken breeders by the head, neck, wings, feathers or tail feathers unless otherwise supported by the breast, except if lifted and carried by the base of both wings.

SB 3.5 A person must provide nest areas during the egg-production phase.

SB 3.6 A person in charge must provide chicken breeders over 7 days of age with access to perches and/or platforms.

SB 3.7 A person in charge must ensure roosting space for layer breeders is not less than 15 cm per bird.

SB 3.8 A person in charge must provide chicken breeders access to a scratch area and/or claw-shortening device.

SB 3.9 A person in charge must provide a minimum of one single nest area for every 7 birds or 1m² nesting area for every 120 birds from point of lay.

Stocking densities cage systems

SB 3.10 A person in charge must ensure that all caged chicken breeders have as a minimum:

- 750 cm² of useable space allowance per bird if kept in a cage of 2 or more birds
- 1,000 cm² of useable space allowance if a bird is kept in a single cage.

Stocking densities non-cage systems

SB 3.11 From 1 July 2032, a person in charge must not exceed a stocking density in ideal conditions indoors of 30 kg/m² (measured as bird density in the useable space) for pullets and adult birds (including roosters).

Guidelines

General guidelines that are recommended in Part A also apply to chicken breeders.

The guidelines in and [B2 Meat chickens](#) are also recommended to apply, as appropriate, to the husbandry methods being used to rear and manage chicken breeders.

GB 3.1 Where slatted or perforated plastic flooring is used, the smaller of the dimensions of the gaps or perforations should be no greater than 25 mm.

GB 3.2 Catching of breeder chickens should be carried out under dim or blue light.

B4 Ducks

Standards

General standards in [Part A](#) also apply to ducks.

SB 4.1 A person must not lift or carry ducks by the head, legs, wings, feathers or tail feathers unless otherwise supported by the breast.

SB 4.2 A person must not undertake bill trimming on ducks unless under veterinary advice.

SB 4.3 A person in charge must provide all ducks access to water sufficient to stimulate preening and to allow birds to clean their eyes and nostrils.

SB 4.4 A person in charge must ensure:

- facilities are provided to allow all breeder ducks reasonable access to dip their heads under water, or
- showers are provided to allow ducks to wet preen and to clean their eyes and nostrils.

All facilities installed after 1 July 2022 must comply, and facilities constructed prior to this date must comply by 1 July 2032.

SB 4.5 A person in charge must ensure nest areas are provided for layer ducks and duck breeders from the point of lay.

SB 4.6 A person in charge must take reasonable actions to keep litter dry and away from water sources.

SB 4.7 A person must ensure birds have enough space to stand, turn around and flap their wings.

SB 4.8 A person must ensure space allowance is sufficient to allow all birds to be able to sit at the same time.

Space allowances

SB 4.9 A person must ensure the maximum recommended stocking densities for ducks according to housing type and under good management conditions Table 5.

Table 5 Space allowance requirements for ducks

Bird type	Housing system	Age	Maximum density
Ducklings	Indoors	0 to 10 days	50 birds/m ²
	Indoors	Over 10 days	24 kg/m ²
	With outdoor access	Over 8 weeks	5,000 birds/ha
Breeders	Indoors	Over 8 weeks	5 birds/m ² or 20 kg/m ²
	With outdoor access	Over 8 weeks	4,000 birds/ha

Note: Lighter stocking densities are necessary for heavier breeds such as muscovies.

Guidelines

General guidelines that are recommended in Part A also apply to ducks.

Management practices

GB 4.1 If bill trimming is required under veterinary advice, it should only be carried out by a skilled operator and only the rim at the front of the upper bill is to be removed.

GB 4.2 Water facilities should be sufficient in number and designed to allow water to cover the head and be taken up by the bill so that the duck can shake water over the body without difficulty.

GB 4.3 Good management of water sources should include:

- being located on an elevated drinking area to allow wastewater to drain away
- being on good quality plastic slats to avoid foot problems
- gently sloping ramps to access elevated water sources
- bordered by a low, solid fence to prevent water being splashed into dry areas.

GB 4.4 New technologies that provide surface water for ducks without compromising litter management or environmental outcomes should be investigated and adopted when they become available.

GB 4.5 Handling ducks should be undertaken only by competent persons who have been appropriately trained.

GB 4.6 Handling ducks should be carried out quietly and confidently, exercising care to avoid unnecessary struggling which could bruise or otherwise injure ducks.

GB 4.7 In hot weather, handling ducks should be carried out during the coolest part of the day.

GB 4.8 Where slatted or perforated plastic flooring is used, the smaller of the dimensions of the gaps or perforations should be no greater than 25 mm.

B5 Emus

Standards

General standards in [Part A](#) also apply to emus.

SB 5.1 A person in charge must ensure that natural aggression is effectively managed.

SB 5.2 A person in charge must ensure emus have enough space to stand, turn around and flap their wings.

SB 5.3 A person in charge must ensure space allowance is sufficient to allow all emus to be able to sit at the same time.

Chicks

SB 5.4 A person in charge must not house chicks in groups of more than 200 for the first 4 weeks of life and must ensure adequate heating is provided to prevent huddling that would cause smothering.

Blackhead/juvenile emus – 4 weeks to 12 months old

SB 5.5 A person in charge must ensure emus kept inside are provided with access to an outside area of at least 15 m by 2 m.

SB 5.6 A person in charge must ensure blackhead/juveniles in open conditions are provided with effective windbreaks or other shelter.

SB 5.7 A person in charge must ensure stocking rates for birds raised in open conditions vary from 175 birds/ha for dry or bare conditions to 250 birds/ha for lush or irrigated conditions.

Yearling emus – 12 months old to processing

SB 5.8 A person in charge must ensure yearlings are housed in open conditions at stocking rates from 100 birds/ha for dry or bare conditions to 175 birds/ha for lush or irrigated conditions.

Mature/breeding emus

SB 5.9 A person in charge must ensure that where emus are kept as breeding pairs each pair is provided with a minimum pen size of 400 m², which must be securely fenced.

SB 5.10 A person in charge must ensure in low rainfall areas and where there is little vegetation, stocking rates are decreased, except if supplementary feed is provided.

Guidelines

General guidelines that are recommended in Part A also apply to emus.

Food and water

GB 5.1 Young chicks should not be fed fibrous or coarse food as it may become impacted and cause obstruction.

GB 5.2 Care should be taken when changing the environment of emus in order to prevent impactions and nutritional imbalances.

GB 5.3 Where chicks and yearlings are reared in groups of over 100, multiple feed points should be provided in each pen.

GB 5.4 Newly hatched chicks should have access to feed every 24 hours, but this may be extended to not more than 48 hours.

Housing and handling yards

GB 5.5 Fencing should be at least 1.5 m high in all yards for adult emus and should be of adequate height to suitably contain pre-adult birds.

GB 5.6 Where portable yards are used, the partitions should be well constructed and yard flooring should be firm to avoid injury to birds and birds being clawed by other birds.

GB 5.7 All fences in handling facilities should have solid sides so that emus cannot see outside the confines of the yard.

GB 5.8 A person should ensure effective environmental enrichment is provided to emus, including foraging materials.

GB 5.9 A person should ensure nest materials are available for emu breeders when in lay.

Chicks

GB 5.10 To avoid injury to the chicks, separation of the hen or chicks should occur before the first chicks hatch.

GB 5.11 Chicks should be given access to an outside area from 2 days of age depending on climatic conditions.

GB 5.12 Outdoor areas for chicks under 4 weeks old should be covered to protect chicks from predation.

Equipment

GB 5.13 Feeders and waterers should be located well away from fence lines to avoid injury if conflicts occur while eating or drinking.

GB 5.14 Automated hatchery equipment should have adequate back-up systems, which should include an alarm system or generator in case of power failure.

Temperature

GB 5.15 Heating provided should be a minimum of 20°C and a mean temperature of 25°C in the first 4 weeks of life.

Lighting

GB 5.16 Where emus do not have access to daylight, they should be exposed to artificial light for at least 8 hours per day.

GB 5.17 A blackout training period from one day of age should occur each day to customise the birds in the event of a lighting failure.

GB 5.18 For the first few days after hatching, young chicks reared away from their father should be provided with a high light intensity of 40 lux on the food and water so they can learn to find it.

Handling

GB 5.19 Emus should be picked up by supporting the body.

GB 5.20 When birds are herded, actions should be taken to ensure birds remain calm and injuries, aggression and stress are minimised. This may include darkening the yard entrance by covering raceways, or the use of corrals or partitions.

GB 5.21 Experienced handlers can use the wings and pressure on the rump to help guide emus. Care should be taken when handling by the wings as the limbs are easily damaged.

GB 5.22 Introducing non-socialised birds into such groups should be minimised to avoid the potential for aggression and injury.

Hatchery management

GB 5.23 Soiled eggs should not be placed into an incubator.

GB 5.24 Emu chicks should be brooded within 24 hours of hatching.

GB 5.25 Chicks in brooders should be inspected at least once every 12 hours and action taken to correct problems as they occur.

GB 5.26 Waste should not be stored or allowed to accumulate in the vicinity of the incubators.

GB 5.27 Incubators should be thoroughly disinfected between batches.

GB 5.28 When necessary, chicks should be humanely killed by cervical dislocation by an experienced person.

Humane killing

GB 5.29 The recommended methods for humane killing that should be used are:

- for adult birds – a firearm, or sedation followed by captive bolt or decapitation
- for young birds – stunning followed by decapitation or bleeding to ensure death.

GB 5.30 A shotgun should be used as the preferred firearm for humane killing where close restraint is not possible.

B6 Geese

Standards

General standards in [Part A](#) also apply to geese.

SB 6.1 A person must not catch geese by the legs or feet.

SB 6.2 A person must not lift or carry geese by the head, neck, legs or feet, wings, feathers or tail feathers unless otherwise supported by the breast.

SB 6.3 A person in charge must ensure shelter on a range provides 1 m²/bird coverage.

SB 6.4 A person in charge must ensure a single pair of geese is kept in an area of at least a minimum of 3 m².

SB 6.5 A person must ensure geese have enough space to stand, turn around and flap their wings.

SB 6.6 A person must ensure space allowance is sufficient to allow all geese to be able to sit at the same time.

SB 6.7 A person must ensure the maximum recommended stocking densities for geese Table 6 according to housing type and under good management conditions are.

Table 6 Space allowance requirements for geese

Bird type	Housing system	Age	Maximum density
Goslings	Indoors	0 to 10 days	12 birds/m ²
	Indoors	3 to 8 weeks	4 birds/m ²
	Indoors	8 weeks	2 birds/m ²
	With outdoor access	8 weeks	1,250 birds/ha
Breeders	Indoors	Over 8 weeks	2 birds/m ²
	With outdoor access	Over 8 weeks	250 birds/ha

Guidelines

General guidelines that are recommended in Part A also apply to geese.

GB 6.1 Geese should be provided with food supplementation for growth and reproduction.

GB 6.2 Geese should always be caught by the neck.

GB 6.3 Handling aids such as a catching crook should be used to catch geese.

GB 6.4 Effective but not excessive restraint should be used to minimise movement and to enable the task to be done quickly and efficiently.

GB 6.5 Temporary catching pens should be used where appropriate.

GB 6.6 Light breeds should be lifted and carried by the base of both wings and neck, supported by the breast.

GB 6.7 Heavy breeds should only be lifted from 2 points, base of both wings or the neck and supported under the breast. Heavy breeds should only be carried short distances when using this method.

GB 6.8 A person should ensure geese are provided with effective environmental enrichment, including foraging materials and access to water for wet preening.

GB 6.9 A person should ensure nest areas and materials are provided for breeding geese when in lay.

B7 Guinea fowl

Standards

General standards in [Part A](#) also apply to guinea fowl.

SB 7.1 A person must not lift or carry guinea fowl by the head, legs, neck, wings, feathers, or tail feathers unless otherwise supported by the breast.

SB 7.2 A person must ensure the maximum stocking densities for guinea fowl under good management conditions are Table 7.

Table 7 Space allowance requirements for guinea fowl

Bird type	Age	Maximum density
Growing stock	0 to 5 weeks	20 birds/m ²
	5 to 10 weeks	14 birds/m ²
Adult birds	Over 10 weeks	4 birds/m ²
	Range area	1,000 birds/ha

SB 7.3 A person in charge must ensure that guinea fowl have access to suitable perches and/or platforms.

SB 7.4 A person must ensure guinea fowl have enough space to stand, turn around and flap their wings.

SB 7.5 A person must ensure space allowance is sufficient to allow all guinea fowl to be able to sit at the same time.

Guidelines

General guidelines that are recommended in Part A also apply to guinea fowl.

GB 7.1 Pens and houses should be constructed using small gauge wire mesh.

GB 7.2 Adult guinea fowl should be kept at 22°C.

GB 7.3 Guinea fowl keets (chicks) should be kept at a brooding temperature of 37°C for the first 3 weeks followed by a 1°C reduction for each of the next 2 weeks.

GB 7.4 Guinea fowl keets (chicks) should be provided heat for the first 6 weeks.

GB 7.5 Guinea fowl should be provided with a high protein diet.

GB 7.6 A person should ensure that guinea fowl are provided with effective environmental enrichment, including foraging materials and cover for hiding.

GB 7.7 A person should ensure nest areas and materials are provided for guinea fowl breeders when in lay.

B8 Ostriches

Standards

General standards in [Part A](#) also apply to ostriches.

SB 8.1 A person must ensure that if a bird has difficulty in rising or walking and has significant leg heat, pain and/or swelling, veterinary advice is sought, or the bird is humanely killed.

SB 8.2 A person in charge must ensure ostriches have enough space to stand, turn around and flap their wings.

SB 8.3 A person in charge must ensure space allowance is sufficient to allow all ostriches to be able to sit at the same time.

SB 8.4 A person in charge must provide supplementary feed to birds kept in dry and bare conditions.

Guidelines

General guidelines that are recommended in Part A also apply to ostriches.

Handling

GB 8.1 Ostriches should be picked up by supporting the body.

GB 8.2 Chicks should be brooded within 24 hours of hatching.

GB 8.3 Chicks in the brooder should be inspected several times throughout the day.

GB 8.4 Hooding of the head should be practised as a safe and reliable method of restraint for ostrich over 6 months of age. When hooded, birds should be restrained and attended at all times.

GB 8.5 A shepherd's type crook should be used with care to restrain the head and bring it into position for applying a hood to adult birds, particularly to mature males.

Housing

GB 8.6 Where ostriches are held as breeding pairs, they should be kept in a well-fenced pen of at least 25 m × 60 m.

GB 8.7 Where breeding trios are kept, the minimum pen size of 30 m × 70 m should be adopted.

GB 8.8 When breeding pairs are housed under range conditions, the birds on the range should be monitored regularly.

GB 8.9 Where chicks and juveniles are reared in groups, feed points should be located to enable all birds to eat at the same time.

GB 8.10 Fencing should be sufficient to ensure that ostriches cannot escape.

GB 8.11 Chicks after brooding should have access to outside areas at an early age, paying due respect to the climatic conditions.

GB 8.12 A person should ensure ostriches are provided with effective environmental enrichment, including foraging opportunities.

GB 8.13 A person should ensure nest areas are provided for ostrich breeders when in lay.

Feed and water

GB 8.14 Chicks under 8 weeks of age should have food available for at least 10 hours per day.

Fencing and yards

GB 8.15 Fencing should be sufficiently close to the ground to prevent birds pushing under the wire. Where possible on fences, wire should be fixed on the inside of the posts.

GB 8.16 All fences in handling yards and transportation facilities should be solid sided and high enough to block the ostriches' vision if possible. Ostriches will be calmer when placed in such an environment.

Humane killing

GB 8.17 When necessary, chicks should be humanely killed by cervical dislocation by a person experienced in this technique.

GB 8.18 Where a firearm is used, a .22 calibre long rifle or magnum should be used for the humane killing of ostriches.

GB 8.19 A shotgun should be used as the preferred firearm for humane killing where close restraint is not possible.

B9 Partridge

Standards

General standards in [Part A](#) also apply to partridge.

SB 9.1 A person must not lift or carry partridge by the head, legs, neck, wings, feathers or tail feathers unless otherwise supported by the breast.

SB 9.2 A person must ensure partridges have enough space to stand, turn around and flap their wings.

SB 9.3 A person must ensure space allowance is sufficient to allow all partridges to be able to sit at the same time.

Guidelines

General guidelines that are recommended in Part A also apply to partridge.

GB 9.1 The yards should have a soft roof (for example, grapevine netting) to avoid damage to any birds in flight.

GB 9.2 Yards should be well drained.

GB 9.3 Pens and houses should be constructed using small gauge wire mesh.

GB 9.4 A person should ensure partridge are provided with effective environmental enrichment including foraging materials and cover for hiding.

GB 9.5 A person should ensure nest areas and materials are provided for partridge breeders when in lay.

B10 Pheasants

Standards

General standards in [Part A](#) also apply to pheasants.

SB 10.1 A person must not lift or carry pheasants by the head, legs, neck, wings, feathers or tail feathers unless otherwise supported by the breast.

Space allowances

SB 10.2 A person must ensure pheasants have enough space to stand, turn around and flap their wings.

SB 10.3 A person must ensure space allowance is sufficient to allow all pheasants to be able to sit at the same time.

SB 10.4 A person must provide pheasants access to perches and/or platforms.

Guidelines

General guidelines that are recommended in Part A also apply to pheasants.

GB 10.1 The yards should have a soft roof (for example, grapevine netting) to avoid damage to any birds in flight.

GB 10.2 Yards should be well drained.

GB 10.3 Wire grids should be fitted to drinkers to prevent drowning.

GB 10.4 Pens and houses should be constructed using small gauge wire mesh.

GB 10.5 A person should ensure pheasants are provided with effective environmental enrichment, including foraging materials and cover for hiding.

GB 10.6 A person should ensure nest areas and materials are provided for pheasant breeders when in lay.

B11 Pigeons

Standards

General standards in [Part A](#) also apply to pigeons.

SB 11.1 A person in charge must ensure every effort is made to avoid aggression from male birds towards both hen birds and immature nestlings by the appropriate selection of breeding stock coupled with appropriate housing.

SB 11.2 A person must not lift or carry pigeons by the head, legs, neck, wings, feathers, or tail feathers unless otherwise supported by the breast.

SB 11.3 A person in charge must ensure pigeons are not weaned before they are capable of feeding and drinking independently of their parents.

SB 11.4 A person in charge must ensure that at all times there are more perches either box or V shaped – available in the loft than resident pigeons.

SB 11.5 A person must ensure pigeons have enough space to stand, turn around and flap their wings.

SB 11.6 A person must ensure space allowance is sufficient to allow all pigeons to be able to sit at the same time.

Racing

SB 11.7 A person in charge must ensure racing pigeons are not released away from the home loft for racing into extreme weather conditions or if there is heavy, lingering fog in any portion of the return journey.

SB 11.8 A person in charge must ensure that racing pigeons are supervised when released around the home loft.

SB 11.9 A person in charge must ensure that open lofting of racing pigeons is supervised.

SB 11.10 A person in charge must ensure adult racing pigeons have a minimum floor space of 200 cm²/bird during transport.

Guidelines

General guidelines that are recommended in Part A also apply to pigeons.

Housing

GB 11.1 Stock bird lofts should be roofed to maintain dry nesting areas.

GB 11.2 Perches should be provided at several levels.

GB 11.3 Nest areas should have provision for 2 sections in the event the hen needing to seek refuge from the cock bird.

GB 11.4 Nest bowls should be lined with a non-slip material or nesting material supplied.

GB 11.5 Wherever possible mated pairs should be provided with a nest area.

GB 11.6 A person should ensure effective environmental enrichment is provided to pigeons including perches/ledges and foraging material.

Space allowances

GB 11.7 Each breeding pair of pigeons should be provided with a minimum of 0.725 m² of floor space including 0.275 m² nesting area.

GB 11.8 The minimum space available to each racing pigeon in the breeding loft should be 0.23 m³. The minimum space available in the breeding loft should be calculated as 2.5 times the allowance of the racing loft per pigeon (excluding nest areas).

GB 11.9 The minimum space available to each bird in the racing loft should be 0.092 m³ or 450 mm × 450 mm × 450 mm.

GB 11.10 If wire floors are used, mesh should be of not less than 18 gauge and 25 mm x 25 mm or its equivalent.

GB 11.11 A person should ensure racing pigeons have daily opportunity for flight.

GB 11.12 Other than for planned free flight and non-flight times, all racing pigeons should be confined within their home loft. Persistent fielding and/or roof sitting should be avoided.

Racing pigeons

GB 11.13 Free-flight exercise should be in accordance with a plan, and for at least 30 minutes duration per day during both pre-training and the race programme.

GB 11.14 Racing pigeons should be released from race/training points:

- under clear sky conditions – release a minimum of 15 minutes after gazetted sunrise for the area

- under over-cast sky conditions – release a minimum of 30 minutes after gazetted sunrise for the area.

GB 11.15 Off-the-ground lofts should have a minimum clearance height from the ground to floor level of 200 mm, allowing for a free flow of air under floor.

GB 11.16 Off-the-ground loft flooring should be either trafficable:

- mesh grating floor, allowing droppings to pass through for collection below floor level
- timber floor with moisture absorptive qualities and for regular ease of scrape cleaning, for example, chipboard, or plywood.

GB 11.17 On-ground lofts should have a concrete slab floor, and have a heavy-duty plastic moisture barrier laid underneath at pouring. Adequate floor -level ventilation should be provided.

GB 11.18 External open aviaries and or sun yards which are exposed to the elements should be off the ground otherwise well drained, sanitary and vermin proof.

GB 11.19 Metal housing roofs should be insulated.

GB 11.20 Lofts should be lined with insulating materials for example, plywood or chipboard.

GB 11.21 Racing pigeons should be fed and watered after exercise.

B12 Quail

Standards

General standards in [Part A](#) also apply to quail.

SB 12.1 A person in charge must ensure that the flooring provides secure footing and prevents leg injuries.

SB 12.2 A person must not lift or carry quail by the head, legs, neck, wings, feathers, or tail feathers unless otherwise supported by the breast.

Space allowances

SB 12.3 A person must ensure quail have enough space to stand, turn around and flap their wings.

SB 12.4 A person must ensure space allowance is sufficient to allow all quail to be able to sit at the same time.

Guidelines

General guidelines that are recommended in Part A also apply to quail.

GB 12.1 The maximum recommended stocking densities for quail should not exceed 55 birds per m².

GB 12.2 To minimise leg injuries and allow secure footing, suitable material such as corrugated cardboard, wood shavings or coarse paper should be used over the floor surface, particularly in the first 10 days of life.

GB 12.3 Mesh should be small enough to prevent chicks escaping through side walls.

GB 12.4 Pens, houses and cages should be constructed using small gauge wire mesh.

GB 12.5 Covered nests, covered shelter areas or solid opaque panels should be provided to quail to reduce stress.

- GB 12.6** Cage height should be at least 25 cm high and constructed to avoid injury from flight.
- GB 12.7** Appropriate environmental enrichment resources should be provided to quail, to provide opportunities such as nesting, foraging, pecking, scratching and dustbathing.
- GB 12.8** The yards should be well drained and have a soft roof (for example, grapevine netting) to avoid damage to any birds in flight.
- GB 12.9** Nest areas should be provided for quail breeders when in lay.
- GB 12.10** Steps should be taken to limit aggression between male breeder quails.

B13 Turkeys

Standards

General standards in [Part A](#) also apply to turkeys.

- SB 13.1** A person must not lift or carry turkeys by the head, neck, wing extremities, feathers or tail feathers unless otherwise supported by the breast.
- SB 13.2** Nest areas must be provided for turkey breeders when in lay.
- SB 13.3** Turkey toms must not be overstimulated during semen collection. Any toms that show cloacal bleeding during collection must be rested for at least 3 to 4 days before being assessed for ongoing suitability for breeding.
- SB 13.4** A person in charge must provide turkeys access to perches and/or platforms, as well as access to pecking objects and/or substrate from 14 days of age.
- SB 13.5** A person must ensure turkeys have enough space to stand, turn around and flap their wings.
- SB 13.6** A person must ensure space allowance is sufficient to allow all birds to be able to sit at the same time.

Stocking density

- SB 13.7** A person must ensure the maximum stocking densities for turkeys does not exceed those shown in Table 8.

Table 8 Space allowance requirements for turkeys

Live weight	Maximum bird density in useable space
6 kg	30 kg/m ²
7 to 10 kg	35 kg/m ²
10 to 13 kg	42 kg/m ²
Over 13 kg	46 kg/m ²
Breeding stock	30 kg/m ²

Note: Stocking density of other sheds should be less than the described controlled environment housing maximums. Controlled environment housing to be equipped with fans and foggers.

A person in charge may use the maximum stocking densities described if additional monitoring steps are taken which must include:

- monitoring and recording the relative humidity, ammonia, and maximum temperature levels daily

- taking reasonable action to reduce stocking density if relative humidity, temperature, and ammonia levels consistently exceed over 3 or more consecutive days:
 - a relative humidity of 70%
 - a temperature of 32°C
 - ammonia levels of 15ppm
- and maintaining records of stocking density, relative humidity, ammonia, and maximum temperature levels for 2 years.

If a person stocks at least 4 kg/m² below the maximum for the relevant weight group, the additional monitoring steps are not required.

Guidelines

General guidelines that are recommended in Part A also apply to turkeys.

Feed and water

GB 13.1 Water intake should be monitored, and corrective action should be taken if found to be insufficient or excessive for their age.

GB 13.2 Feed and drinking water should not be provided in the outdoor area.

Housing

GB 13.3 Part of the floor area for adult turkeys should be solid and, in case of adult breeding stock, the whole of the floor area should be solid.

GB 13.4 A nesting area of at least 2700 cm², per 5 breeding hens per nest should be provided.

GB 13.5 A person should ensure effective environmental enrichment is provided to turkeys including foraging materials and cover for hiding.

GB 13.6 Pop hole door height should be a minimum of 80cm high.

Temperature

GB 13.7 During brooding at day old, a temperature of 37°C measured 8 cm above the floor just under the rim of the brooder should be provided with general shed temperature of at least 21°C in the bird area.

GB 13.8 With space-heated brooding systems, an environmental temperature of 33°C at day old should be provided.

Lighting

GB 13.9 Poults up to 7 days old should be provided with a minimum light intensity of 50 Lux (measured at bird height level) across the full floor area of the brooding space to stimulate activity.

GB 13.10 Lighting in sheds should provide a minimum period of 6 hours continuous artificial lighting per day (unless birds have access to natural daylight which provides at least the minimum required intensity) and a minimum period of 6 hours continuous darkness (with all lights off) to be provided at night, in every 24-hour period.

Management practices

GB 13.11 Before hens are mated naturally, they should be fitted with strong saddles (made from canvas, for example) to prevent injury to the backs and sides by the males.

GB 13.12 The physical condition of birds should be monitored and recorded to enable future management decisions.

Handling

GB 13.13 When performing management procedures, the turkeys should be handled:

- by 2 legs with a minimal time upside down – for example, artificial insemination and weighing
- for breeder toms, by opposing wing and leg and protecting the breast for picking up at artificial insemination
- for vaccination in the back of the neck, by holding both wings very close to the body of the bird.

GB 13.14 When catching poults (young turkeys), the catching technique should ensure:

- poults (young turkeys) are caught by both legs
- no more than 4 poults (young turkeys) per hand should be carried at once.

GB 13.15 If catching into crates, approved methods for catching individual turkeys include:

- turkeys weighing 5 kg or less should be caught and carried by both legs with no more than 1 bird in each hand
- turkeys over 5 kg should be caught by grasping the shoulder wing furthest away from the catcher and using the other hand to hold both legs.

GB 13.16 If catching into modules, turkeys should be caught by grasping the shoulder of the wing furthest from the catcher and using the other hand to hold both legs before lifting the bird up and into the drawer.

GB 13.17 Turkeys should be placed onto the floor of the crate or module one at a time.

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