

## Part A

### Responsibilities

SA1.1 A person must take reasonable actions to ensure the welfare of poultry under their care.

*Proposed SA1.1 A person must take effective actions to ensure the welfare of poultry under their care.*

The term 'reasonable' must be replaced by 'effective' action as the former term is open to interpretation.

SA1.2 A person involved in any part of poultry production must be competent to perform their required task, or must be supervised by a competent person.

*Proposed SA1.2 A person involved in any part of poultry production must have recognised qualifications through a nationally accredited scheme.*

Competency must be defined and quantified at a national level by way of a nationally accredited scheme to have any meaning. This standard must be rewritten to include the relevant industry training course/s and accreditation scheme/s.

GA1.1 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 • maintaining appropriate records • knowledge of local patterns of disease and biosecurity practices to prevent disease • killing poultry by appropriate methods, or have access to the assistance of someone who is capable and equipped to kill them appropriately.

*Raise GA1.1 to a Standard and incorporate it into SA1.2*

### Feed and Water

SA2.1 A person in charge must ensure poultry have reasonable access to adequate and appropriate feed and water.

*Proposed SA2.1 A person in charge must ensure poultry have effective access to adequate and appropriate feed and water.*

Replace "reasonable" with as it is open to interpretation.

SA2.2 A person in charge must ensure poultry, other than newly hatched poultry or where skip-a-day feeding is acceptable (for broiler breeders) have access to food at least once in each 24 hour period.

*Proposed SA2.2 A person in charge must ensure that all poultry including newly hatched poultry and broiler breeders have access to food ad libitum.*

The practice of Skip-a-day feeding must be banned due to the cruelty involved, as broiler breeders have been genetically selected by farmers to always be hungry — then denied the very thing they've been bred to do. The independent review Farmed Bird Welfare Science Review, commissioned by the Victorian Government, states the “the evidence for these chickens suffering from chronic hunger is indisputable”(BB2.1), and that “one possible alternative to feed restriction, to improve welfare, is to use broiler breeder genotypes that can be fed *ad libitum*, .....and still maintain acceptable production. (Jones et al., 2004; Decuyper et al., 2006).(BB 2.3A)”

The Review found that feed restrictions cause welfare issues in Broilers with the “welfare benefits of feed restriction on health in fast growing broiler strains ... overshadowed by the broilers experiencing extended period of hunger”(B2.3)

The Review supports immediate feeding for newly hatched poultry for example, “broiler chick mortality can be limited by immediate access to food and water at hatch”(B10) and for Ducks “Body weight was adversely affected by 48-hours deprivation and this difference was still observed when birds reached market age at 35 days old. The results suggest that delayed access to food and water initially affected the metabolism and may have caused dehydration, but also slowed the development of the small intestine.”(D2)

As the Review points out *ad libitum* feeding is already routine for layer hens” The nutrient requirements of laying hens have been well-established over many decades. Birds in all housing systems are usually fed *ad libitum* with rations that enable high egg production and satisfy hunger.” (LH 2) and for ducks” In commercial housing, food and water are generally provided *ad libitum*.”(D2) and this must be extended to all poultry to ensure that extended hunger from restricted diets are avoided.

SA2.3 A person in charge must ensure poultry, other than poultry less than 3 days old, have reasonable access to drinking water at least once in each 24 hour period.

*Proposed SA2.3 A person in charge must ensure that all poultry have access to drinking water ad libitum.*

The Farmed Poultry Review supports *ad libitum* water provision for poultry including newly hatched poultry for example “immediate access to food and water at hatch ...can all help limit first-week mortality.”(B10 ) and “ Sufficient drinkers should be supplied to enable all broilers, even those with limited mobility, to access water at all times, without competition”(B10)

The Review also found that *ad libitum* provision of water is routine for layer hens “clean water is also generally available *ad libitum* in a manner that satisfies thirst.”(LH 2) and for Ducks” In commercial housing, food and water are generally

provided *ad libitum*.”(D2), and this must be extended to all poultry as it is important that water access is not too restricted as water consumption is an important means of automatically monitoring flock health.

GA 2.5 Feeders should be cleaned and maintained regularly.

Upgrade to Standard.

GA2.10 Feeding and watering design, position and height should allow all poultry access to feed and water with minimal effort and using normal posture.

Upgrade to Standard.

GA2.12 Water within drinker lines should be regularly flushed and monitored.

Ammend and upgrade to Standard- “Water within drinker lines must be flushed daily and monitored.”

GA2.11 Assessment of water requirements for construction of poultry watering facilities should consider: • daily requirements and total annual requirement • flow rates needed for peak, short-term demand • construction to prevent temperature build-up • quality and biosecurity risk.

Upgrade to Standard.

GA2.15 Water should be available up to the start of pick up.

Upgrade to Standard.

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

SA3.1 A person in charge must take reasonable actions to protect poultry from threats, including extremes of weather, fires, floods, disease, injury and predation.

*Proposed SA3.1 A person in charge must take effective actions to protect poultry from threats, including extremes of weather, fires, floods, disease, injury and predation.*

Replace “reasonable” as it is open to interpretation.

SA3.2 A person in charge must ensure the inspection of poultry daily, at a level appropriate to the management system and the risk to the welfare of poultry.

*Amend Standard- A person in charge must ensure that poultry are supervised 24hrs and their inspection carried out throughout the 24hrs, at a level appropriate to the management system and the risk to the welfare of poultry. There must be thorough inspection of every animal and follow a protocol that routinely mitigates risk of adverse welfare outcomes for each animal.*

It is not acceptable to the community that industry claims to care about animals yet this Standard only requires a once-a –day inspection of thousands of animals housed in a premises. If the industry is serious about animal welfare, animals must be supervised and inspected throughout the 24hr period to ensure an adequate level of care for the volume of animals housed which cannot be achieved by a once daily inspection.

SA3.3 A person in charge must ensure appropriate action for sick, injured or diseased poultry at the first reasonable opportunity.

*Proposed SA3.3 A person in charge must ensure effective action for sick, injured or diseased poultry immediately upon identification and without delay.*

SA3.4 A person must ensure poultry which are unable to access feed and water are treated or killed as soon as possible.

*Proposed SA3.4 A person must ensure poultry which are unable to access feed and water are treated or killed are killed immediately upon identification.*

Replace “as soon as possible” with “immediately” to ensure that suffering is minimised

GA3.2 Plans to minimise risks to poultry welfare should include: • emergency contact details • electrical power or systems failure • breakdown or mechanical failure affecting feed, water, ventilation • adverse weather — specifically, conditions that predispose poultry to heat or cold stress • flood and fire • insufficient supply of feed or water. • disease outbreak or injury • emergency killing and disposal • other issues specific to the enterprise or poultry being managed.

*Amend and upgrade to Standard- Plans to minimise risks to poultry welfare must include: • emergency contact details • electrical power or systems failure • breakdown or mechanical failure affecting feed, water, ventilation • adverse weather — specifically, conditions that predispose poultry to heat or cold stress • flood and fire • insufficient supply of feed or water. • disease outbreak or injury • emergency killing and disposal • other issues specific to the enterprise or poultry being managed. Alarm systems during power or systems failure including mechanical breakdown or failure. Back-up generator power for feed, water, ventilation, heating, cooling, hatching systems.*

GA3.3 Poultry handling should be minimised during extremely hot weather.

*Ammend and upgrade to Standard- Poultry handling must not occur during extremely hot weather.*

The Review found for:

-Layer hens "The thermal requirements of hens and their housing are long established. This has a so-called thermoneutral zone, usually around 20-25 °C. Above the thermoneutral zone, the bird needs to work to keep cool, eventually panting, which requires extra water consumption"( LH7.5 )

-Boilers” Rearing temperatures reflect thermo-neutral conditions (24 °C) and should be maintained for the entire grow-out period.”(B9.4 ), for boiler breeders”the majority of broiler breeders will be housed within the temperature range required to keep them comfortably warm, the thermoneutral zone (20-25 °C).(BB7.2)

-Ducks” The thermoneutral zone for optimal production of Pekin ducks is between approximately 8-22 °C (Cherry and Morris 2008). In a study on the effects of high environmental temperatures on ducks, it was found that a sudden 3-hour increase in brooder temperature from 19 to 37 °C resulted in an increased respiratory rate and body temperature (Zhu et al., 2014). They also found that some internal organs (liver, spleen, bursa of fabricius) were lighter when compared with a control group”,

-Turkeys” Ambient temperature of 30 °C coupled with air velocity from 1.5-2.5 m/s represents an optimal combination of conditions for young turkey performance in experimental conditions (Yahav et al., 2008).”

The findings are clear that for optimum welfare and maintenance of thermo-neutrality poultry must not be handled in extremely hot weather.

GA3.4 Poultry should be managed to minimise heat stress (signs of which may include panting, wings outstretched) or cold stress (huddling).

#### Upgrade to Standard

GA3.5 Adequate firefighting equipment should be available and maintained for all indoor housing systems.

*Amend and upgrade to Standard- Effective firefighting equipment must be available for all housing systems*

GA3.6 Sufficient inspections should be undertaken during which temperature, light 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.

*Upgrade to Standard- Inspections must be carried out at least twice a day during which temperature, light levels, availability of feed, feeding systems, water and all parts of the ventilation system are checked, and where problems are encountered, appropriate remedial action must be taken to protect the welfare of poultry.*

GA3.7 Inspections should be documented.

#### Upgrade to Standard

GA3.9 All alarm systems, feed, water, ventilation, heating, cooling and hatching systems ,firefighting equipment and emergency power supplies should be tested regularly and test results documented.

*Amend and upgrade to Standard- All alarm systems, feed, water, ventilation, heating, cooling and hatching systems, firefighting equipment and emergency power supplies must be tested daily and test results documented.*

GA3.10 Poultry distribution and behaviour should be monitored during daily inspections and corrective action should be taken to adjust light, temperature or ventilation as required.

Upgrade to Standard.

GA3.12 Appropriate veterinary advice on poultry disease diagnosis, prevention or treatment should be sought as required.

Upgrade to Standard.

GA3.13 Mortalities, including culls, should be monitored and recorded.

Upgrade to Standard.

GA3.16 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 around the tail • signs of persistent aggression such as pecking directed at the head • chasing other birds.

Upgrade to Standard.

GA3.17 Feather pecking and cannibalism risk should be managed. Management methods, such as the below may be considered: • infrared beak trim at day old • reducing light intensity • providing foraging materials • modification of nutrition and feeding practices • reducing stocking density • selecting the appropriate genetic stock • isolation of affected birds.

*Amend and upgrade to Standard-Feather pecking and cannibalism risk must be managed. Management methods, such as the below must be considered: • providing foraging materials • enrichment. modification of nutrition and feeding practices • reducing stocking density • selecting the appropriate genetic stock • isolation of affected birds.*

Procedures on poultry of infrared beak trimming and reducing light intensity to control aggression must be banned and alternatives like increasing enrichment and reducing stocking density must be used instead.

For example, to address aggression in layer hens the Review recommends "good quality litter should be present during rear, with many studies showing that early feather pecking in chicks or young pullets is prevented or reduced by the provision of good quality litter substrates" (Huber-Eicher and Sebö, 2001b; Chow and Hogan, 2005; Bestman et al., 2009), that other enrichment be provided via the provision of hay bales (Daigle et al., 2014), pecking strings (Jones et al., 2000; McAdie et al., 2005), pecking objects (Moroki and Tanaka, 2016a) and pecking blocks (Holcman et al., 2008)" and the avoidance of using low light intensities as "Long-term housing under low light conditions can provoke other welfare problems including eye problems, difficulties in judging flight distances and disruption of social recognition (reviewed in Nicol et al., 2013)"

The Review recognises the role of enrichment in reducing aggression in Broiler breeders as “More injurious feather pecking (severe feather pecks and feather pulls) has been reported in broiler breeders kept entirely on slats than in birds housed on litter; this suggests that the availability of good quality litter for foraging diminishes the effects of stress associated with feed restriction, and that this undesirable behaviour will be minimised if good litter conditions are maintained (Hocking et al., 2005).”

In relation to Turkeys, the Review recommends reducing stocking densities to address aggression” Turkeys are often kept under very low light levels in an attempt to reduce injurious pecking but this may have other adverse welfare consequences. Aggressive interactions pose a greater threat to welfare in turkeys than most other farmed bird species. The turkey is a highly social bird, but can be aggressive in establishing dominance relationships and in competing for resources. High stocking densities can increase levels of aggression as birds are unable to move away from aggressors.”(T9)

Low light conditions are a serious welfare risk for poultry and must not be used to control aggressive feather pecking;

-Layer Hens “Dim light, very short or long photoperiods, and continuous illumination, all adversely affect the development of the eye, and its ability to focus (Lewis and Gous, 2009). (LH 7.1).

-Broilers ”As with continuous or near-continuous lighting, many studies have shown that broilers reared under low lighting (0.5-1 lux) had larger heavier eyes (associated with choroid inflammation and apparent retinal degeneration) than birds reared under brighter light (10-200 lux), which could indicate impaired vision (Deep et al., 2010; 2013; Blatchford et al., 2009; 2012).

-Ducks”Lighting within duck housing can have a huge impact on welfare and a range of wavelengths may be important for welfare. Ducklings prefer bright lighting conditions in the range of 6-100 lux and welfare may be adversely affected if ducks are kept in very low lighting (<1 lux).( D7.1)

-Turkeys “While 2 week old poults significantly prefer environments of 200 lux, at 6 weeks they prefer illuminances greater than 6 lux for inactive behaviour such as resting and perching and illuminances greater than 20 lux for other activities (Barber et al., 2004). However, commercial units rarely use such high illuminances because of the increased risk of injurious pecking (Barber et al., 2004). Instead the light levels in some turkey houses may be below 1 lux. Such a poorly illuminated environment is highly unnatural and can lead to changes in eye morphology, often severe enough to result in partial or total blindness (Buchwalder and Huber-Eicher, 2004).”

## Lameness

GA3.18 Poultry should be monitored for incidence of lameness, and the cause of lameness investigated and treated.

*Amend and upgrade to Standard-Poultry must be monitored for incidence of lameness, and the cause of lameness investigated and treated immediately upon identification.*

## Facilities and Equipment

SA4.4 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.

*Amend and upgrade Standard- A person in charge must ensure that if raised floors are used, only wooden slatted floors are used. Slatted floors must support the forward facing toes, prevent entrapment and facilitate removal of manure. The above Standard must also incorporate the recommendations of Animals Australia for flooring types for each individual poultry species.*

The Review reported that “Hyperkeratosis (thickening of the skin on the foot pad) is a common condition in commercial laying hens..” and “ Generally, the wire floors of cages are a risk factor for hyperkeratosis...”( LH3.8).

It was found that” Wire or slatted floors enable droppings to pass through ....they are commonly used in cages and in raised areas of group housing. Plastic flooring appears to have negative effects in comparison with wire mesh flooring, being associated with reduced plumage quality (Whay et al., 2007; Heerkens et al., 2015) and higher mortality and prevalence of wounds (Heerkens et al., 2015)(LH3.8) and for Pheasants” As with laying hens, housing on wire floors presents a risk to foot health, and furthermore does not provide a suitable substrate for the ground pecking and beak digging behaviours associated with gamebirds, or for dust-bathing, which may result in frustration, as well as overgrowth of the beak, which would normally be worn down by these behaviours.”(PHS4.1).

It was also suggested by the Review that plastic slats contributed to the high incidence of Foot Pad Dermatitis in broiler breeders,” Kaukonen et al. (2016) observed foot pad condition to deteriorate towards slaughter age in breeder hens, at which point the majority (64%) of birds had severe FPD lesions (scored 4 on a 5-point severity scale). FPD score was positively associated with litter moisture, pH, and percentage slatted area; interestingly, litter condition in breeder houses did not appear to fully explain foot pad deterioration, since the maintenance of dry, friable litter over the whole production period did not guarantee foot health (Kaukonen et al., 2016). Unlike broilers, the feet of breeders make contact with plastic slats in addition to litter, and the elevated slats are often used for roosting; bird mass, time spent on the slatted areas, and slat design may all be important factors in determining FPD prevalence and severity in broiler breeders.”

GA4.4 A maintenance programme should in place for all equipment if the failure of which can jeopardise poultry welfare.

Upgrade to standard.

GA4.3 Facilities should be subject to a pest (e.g. wild birds and rodents) control plan.

Upgrade to standard.

GA4.5 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/barriers • objects for pecking • dust-bathing materials • a radio in sheds to accustom poultry to a range of noises and voices.

*Amend and upgrade to Standard-Provision of environmental enrichment must be provided, taking into account potential risks and benefits to poultry welfare. Such practices may include provision of: • bales of hay or straw • perches/barriers • objects for pecking • dust-bathing materials • a radio in sheds to accustom poultry to a range of noises and voices. Water sources for appropriate poultry species.*

The Review found strong evidence for the need for enrichment in Poultry:

-For Layer Hens "Rearing pullets with appropriate enrichment discourages the development of feather pecking and helps to ensure that birds will be able to make full use of all facilities in the laying house as adults.(LH3.5), and "Reduced foraging opportunities appear to interact with high levels of bird fearfulness or stress to increase the overall risk of feather pecking. This interactive effect was demonstrated in a study by El-Iethy et al. (2001) where birds housed on litter performed, as expected, less feather pecking than birds housed on slats. But if the litter-housed birds were directly fed corticosterone, increasing their plasma concentrations to levels seen under physiological stress, feather pecking rates increased significantly.", and "The provision of *ad libitum* feed does not remove the hens' need to engage in foraging behaviour. Indeed, in the presence of free food, hens may still choose to expend energy in a range of foraging behaviours, a phenomenon sometimes called contra-free-loading (Lindqvist and Jensen, 2008; 2009)." (LH4.3)

-For Broilers "Broilers provided with hay bales are generally more active than control birds (Kells et al., 2001; Bailie et al., 2013; Ohara et al., 2015); The provision of wooden barrier perches stimulated some broilers to perch, in preference to lying on the litter (Bizeray et al., 2002b; Ventura et al., 2012) and, due to changes in the way that the birds used the available space, they also lowered aggression and disturbances (of resting individuals) compared to control environments (Ventura et al., 2012). The provision of sand trays can attract broilers into floor areas otherwise rarely used and promote increased foraging behaviour, but has no effect upon locomotor activity or tarsal deformities (Arnould et al., 2004). Although dust-bathing in broilers is rarely observed, they will perform this behaviour if given access to a suitable substrate, such as sand (Bokkers and Koene, 2003a; Shields et al., 2004). Broilers were observed to perform more dust-bathing in sand, and spent a greater proportion of their total time located within an area containing sand, than in areas containing rice hulls, paper, or wood-shavings; no dust-bathing was seen to occur in rice hulls (Shields et al., 2004). Dust-bathing has been reported in broilers as old as 12 weeks (Bokkers and Koene, 2003a), demonstrating that this natural behaviour is still possible despite a heavy body mass."

-For Broiler Breeders “As for layers, broiler breeders should be provided with perches from an early age to meet the behavioural needs of the birds, to assist in the development of mobility and spatio-cognitive skills (ability to navigate through a three-dimensional environment), to assist in accessing resources, and to maximise the potential use of elevated structures during the production period (i.e. perches, platforms and raised nest-boxes). The opportunity to learn perching behaviour during rearing appears to influence laying and nesting behaviour in broiler breeders. Brake (1987) observed that breeder hens reared in the presence of perches exhibited a significantly reduced incidence of floor-laid eggs compared with hens reared without perches. Providing broilers with elevated enrichment, including straw bales and perches, has been shown to encourage increased physical activity, stimulate a greater variety of motor patterns, and improve leg health (see B5.6). European legislation concerning minimum standards for the protection of laying hens states that adequate perches should be provided in enriched cages as well as in alternative systems for laying hens (AHAW, 2010), and there is every reason that similar recommendations should also apply to broiler breeders.”(BB4)

-For Turkeys “The provision of low-level perches or elevated platforms should be considered as a means of satisfying roosting motivation, particularly in younger birds.”(T9)

GA4.8 Poultry should have enough vertical and horizontal space available to stretch to their full height and flap their wings.

We demand an immediate phase out of caged production systems and removal of standards and guidelines related to cages.

The Review unequivocally found that “The conventional cage (CC) system prevents birds from performing basic movements essential for good health (walking, wing stretching), and denies birds the possibility of expressing their behavioural needs to roost, nest and forage, or their motivation to dust-bathe, due to an inherent lack of resources. Lack of exercise weakens bones which are likely to fracture during depopulation, and leads to metabolic conditions such as haemorrhagic fatty liver syndrome. Claw breakage, plumage abrasion and poor foot health are also features of CC systems. ...The welfare problems associated with CCs are substantial and their benefits can be achieved in other cage systems.”(LH11)

GA4.6 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.

Upgrade to Standard. Every action must be taken to ensure that machinery and infrastructure are as quiet as possible through the use of the best available technology and through maintenance.

GA4.10 Where poultry are brooded on wire, temporary supportive flooring material, such as paper or matting, should be provided during the early brooding period.

Amend and upgrade to Standard- *Poultry must be brooded in non-cage production systems, on wooden slatted floors with appropriate litter.*

Poultry must not be brooded in cages as the community demands that caged production systems be phased out immediately.

### **Perches**

GA4.11 If perches are provided they should be designed and fitted to reduce the risk of vent pecking.

*Amend and upgrade to Standard- Perches must be designed and fitted to reduce the risk of vent pecking.*

GA4.12 Where used perches should be designed and located to minimise the risk of injury when mounting or dismounting perches.

*Amend and upgrade to Standard - Perches must be designed and located to minimise the risk of injury when mounting or dismounting perches.*

GA4.14 Perching areas should be designed to allow poultry to grip without risk of trapping their claws.

*Amend and upgrade to Standard - Perching areas must be designed to allow poultry to grip without risk of trapping their claws.*

In reference to GA4.11-4.14, it is recommended that they be upgraded to Standards and reflect the findings of the Review which identified a highly motivated need to perch exists amongst poultry and therefore must be provided for poultry;

- For Layer Hens,"In non-cage flocks it would seem beneficial to allow highly-motivated night-time roosting on elevated structures, but these may be achievable by providing appropriately-designed grids, ramps and platforms that do not necessarily fit the common image of a "perch" but that do minimise risks of injury and fracture (Stratmann et al., 2015a; Heerkens et al., 2016a; Pettersson et al., 2017).(LH 4.2D),"Provision of perches also reduces later problems with feather pecking (Gunnarsson et al., 1999; Huber-Eicher and Audigé, 1999) possibly because birds learn how to avoid trouble-makers by moving in three dimensions."(LH 9),

-For Boiler Breeders" Further benefits of promoting perching and roosting include reduced contact between the skin and the litter and better distribution of birds vertically within the available space, allowing better circulation of air and improving ventilation of the litter surface. Results regarding the influence on elevated structures and contact dermatitis are variable and are likely to reflect different uptake in perch use between studies. Perch provision has been associated with less FPD (Ventura et al., 2010; Hongchao et al., 2013; Kiyama et al., 2016). As for layers, broiler breeders should be provided with perches from an early age to meet the behavioural needs of the birds, to assist in the development of mobility and spatio-cognitive skills (ability to navigate through a three-dimensional environment), to assist in accessing resources, and to maximise the potential use of elevated structures during the production period (i.e. perches, platforms and raised nest-boxes). The opportunity to learn perching behaviour during rearing appears to influence laying and nesting behaviour in broiler breeders. Providing broilers with elevated enrichment, including straw bales and perches, has been shown to encourage increased physical activity,

stimulate a greater variety of motor patterns, and improve leg health (see B5.6). European legislation concerning minimum standards for the protection of laying hens states that adequate perches should be provided in enriched cages as well as in alternative systems for laying hens (AHAW, 2010), and there is every reason that similar recommendations should also apply to broiler breeders.(BB4.2)

- For Turkeys "However, when perches are provided, the use of elevated levels as a perching place was significantly higher in the dark periods (Berk and Hahn, 2000) suggesting that commercial turkeys will use perches or elevated levels to roost. While a reduction in motivation to perch as age increases cannot be discounted (Martrenchar et al., 2001), evidence that older birds will still climb on to straw bales or use wider, lower perches suggests that the motivation persists with age (Sainsbury and Sherwin, 2001). It seems to be the physical constraints imposed by the heavy weight of modern strains that restricts the use of perches in commercial turkeys (Bessei, 1999, cited by Martrenchar et al., 2001)."( T4.2 )

## **Nests**

In reference to GA4.15-4.17, it is recommended that they be upgraded to Standards and reflect the findings of the Review which identified a highly motivated need to nest exists amongst poultry and therefore must be provided;

-For Turkeys," Wild turkey hens build nests on which to incubate and raise their chicks. An experimental study comparing incubation behaviour and hormonal parameters in turkey hens exposed to different rearing environments (battery cage without a nest box, individual floor pens with a nestbox and group floor pens with nestboxes), found that environment had a significant influence on both hormones and incubation behaviour (Bédécarrats et al., 1997). The hens housed in the group pens expressed higher levels of incubation behaviour, higher prolactin levels and laid more eggs in their nestboxes and the authors hypothesised that the greater visual and tactile exposure to eggs and nestboxes may have facilitated this difference (Bédécarrats et al., 1997). Empirical evidence on turkeys' need for a nest appears to be lacking. However, given that wild turkey hens place considerable importance on nest site and that experimental studies have demonstrated that turkey hens will use nest boxes if they are provided, this would indicate that turkey breeder hens should have access to some form of nest."(T4.1)

-For Layer Hens" There is an internal component to nesting motivation such that, approximately 1-2 h before oviposition, hens become increasingly active and restless and start to search for a suitable nest site. Potential nest sites are inspected closely before one is chosen for nesting and egg laying. Whilst nesting, hens alternate between sitting and (vestigial) nest building activities such as turning, floor scratching, and manipulating potential nesting materials such as pieces of straw. If such highly preferred substrates are absent, then almost any material will be pecked at and placed around the body. Hens have preferences for nests that can be moulded by their own bodies, but they will accept pre-formed nests, provided these permit some of the nest building activities mentioned above (Duncan and Kite, 1989). The majority of hens sit in the nest for between 17 and 25 min before oviposition (Cronin et al., 2005; Hunniford and Widowski, 2016), with total time spent in nests ranging from 23 to 65 min (Heinrich et al., 2015). Many studies have shown that hens have a high motivation to access a preferred nest, particularly as the sitting

phase approaches, and this motivation has been measured by observing hens squeezing through narrow gaps (Cooper and Appleby, 1996) or pushing through weighted doors (Cooper and Appleby, 2003). In this latter study, at approximately 20 minutes prior to oviposition, hens worked at a higher rate for nest access than is seen for access to feed (after a 4 hour deprivation period)."

*-For Broiler Breeders" Broiler breeders appear to be motivated to nest within nest-boxes so a sufficient number of an appropriate design should be provided.*

Very few studies have been conducted on nesting behaviour in broiler breeders. Laying hens demonstrate a strong innate motivation to nest (see LH4.1), and it is safe to assume that breeders share the same drive to lay their eggs within a suitable nest site with minimum stress for the sitting hen (i.e. away from flock-mate disturbances)."(BB4.1)

*-For Ducks" Ducks prefer to lay their eggs in enclosed boxes with a roof and an entrance curtain. The presence of another egg also increases the likelihood of ducks laying within a nest box.*

Most nesting birds however chose a secluded and safe position to lay eggs. In an experimental study, it was found that ducks significantly prefer enclosed nest boxes, opting for those with a closed top and an entrance curtain (Makagon et al., 2011)."(D4.1)

GA4.15 Where nests are provided, they should provide seclusion from the flock and should be of adequate size and number to meet the laying needs of all poultry, and ensure poultry can lay without undue competition.

*Amend and upgrade to Standard- Nests must be provided to provide seclusion from the flock and should be of adequate size and number to meet the laying needs of all poultry, and ensure poultry can lay without undue competition.*

GA4.16 If nest boxes 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.

*Amend and upgrade to Standard- Nest boxes must be provided which are easily accessible and should not be so high above the floor level that poultry may be injured when ascending or descending.*

GA4.17 Nest litter, where used, should be kept clean, dry, friable and moisture adsorbent. Nest liners should be kept clean and dry.

*Amend and upgrade to Standard- Nest Litter must be provided and kept clean, dry, friable and moisture adsorbent. Nest liners must be kept clean and dry.*

GA4.18 Access to the outdoors should meet the following requirements: • openings should be of a height to allow birds to pass through using normal posture • design and position of openings should avoid birds being able to obstruct the movement of other birds • position of openings should allow the outdoors to be visible to birds at ground level within the laying facility • the area around openings should be kept clean and well drained.

*Amend and upgrade to Standard- Access to the outdoors must meet the following requirements: • openings must be of a height to allow birds to pass through using normal posture • design and position of openings must avoid birds being able to obstruct the movement of other birds • position of openings must allow the outdoors to be visible to birds at ground level within the laying facility • the area around openings must be kept clean and well drained. Birds must be able to walk through opening without having to jump through them.*

GA4.19 If ramps are provided they should be made from non-slip material, allow for minimal effort and ease of bird movement and be cleaned after each batch.

*Amend and upgrade to Standard- Ramps must be provided which must be made from non-slip material, allow for minimal effort and ease of bird movement and be cleaned after each batch.*

### Management of Outdoor Systems

GA5.1 The outdoor area should be actively managed and maintained to: The outdoor area should be actively managed and maintained to:

- encourage birds to access all areas
- provide birds with palatable vegetation
- control disease and parasites
- avoid injury or mortality
- prevent land degradation
- avoid accumulation of water
- minimise contact with wild birds
- minimise the risk of fire.

*Raise to Standard.*

GA5.3 Outdoor area enhancement should be provided to allow poultry to feel safe outdoors and be encouraged to move away from the housing openings.

*Raise to Standard.*

### Lighting

SA6.1 A person in charge must ensure that the light intensity on poultry must be adequate to allow poultry and equipment to be inspected and any problems to be identified.

*Amend Standard- A person in charge must ensure that the light intensity on poultry must be at a level that they can see clearly proximally and distally and to allow each and every animal and equipment to be inspected and any problems to be identified.*

SA6.3 A person in charge must ensure that the light intensity for poultry is at least 5 Lux on average during light periods.

*Amend Standard to incorporate the recommendations by Animals Australia for light intensities for each poultry species as well as their recommendations for the optimal continuous period of natural light to be provided for poultry.*

The Review found that a minimum of 5 lux during light periods was inadequate for certain poultry species for example:

-For Boilers “Continuous or near-continuous lighting, and dim illumination (<10 lux) during the lights-on period, have negative effects on broiler behaviour and health;”(B8.1) and “Birds raised under dim lighting (5 lux) demonstrate pronounced dispersal of inactive and active behaviours over the entire photoperiod and lack behavioural synchronisation, presumably due to the low light-dark contrast between the scotophase and photophase having dampened their behavioural rhythms (Alvino et al., 2009a; Blatchford et al., 2009; 2012).” (B8.1b) - Within the EU, lighting requirements state that a light intensity of at least 20 lux during the light phase must be provided at all ages for broilers.

-For Boiler Breeders “Because laying hens and broiler breeders are fundamentally biologically similar, it can be assumed that very low light intensity will also affect these behaviours in broiler breeders. Light intensities of 20-40 lux may be used for non-beak-trimmed birds, to prevent injurious pecking. Lewis et al. (2009) verified that these recommendations were appropriate for non-cage systems; they determined biological optima for egg production as 15 lux during rear and 7 lux in the laying period; hens illuminated at 25 lux in the laying period laid more floor eggs than at either 55 or 70 lux. (BB7.1)

-For Turkeys”Turkey poults show a preference for different light environments at different ages and for different behaviours (Barber et al., 2004). While 2 week old poults significantly prefer environments of 200 lux, at 6 weeks they prefer illuminances greater than 6 lux for inactive behaviour such as resting and perching and illuminances greater than 20 lux for other activities (Barber et al., 2004). However, commercial units rarely use such high illuminances because of the increased risk of injurious pecking (Barber et al., 2004).(T7.1)

-For Ducks” The provision of natural light (in addition to artificial light) within housing is ideal, but if not possible, a range of light intensities should be provided. Ducks showed a preference for at least 6 lux.”(D11)

SA6.4 A person in charge must ensure poultry are not exposed to continuous light or darkness in any 24 hour period except on the day of pick-up (meat chickens) and meat chickens during very hot weather.

*Amend Standard- A person in charge must ensure poultry are not exposed to continuous light or darkness in any 24 hour period.*

The community demands that all poultry are given at least 8hrs of continuous dark so as to replicate a natural environment.

SA6.5 A person in charge must ensure poultry except for meat chickens, emus, ostriches and quail are exposed to at least 4 hours of continuous darkness within a 24 hour period.

*Amend Standard- A person in charge must ensure all poultry including meat chickens, emus, ostriches and quail are exposed to at least 8 hours of continuous darkness within a 24 hour period.*

The Review provided strong evidence for a minimum of 8hrs dark for poultry for example:

-For Broilers "an appropriate photoperiod (e.g. 16 hours of light:8 hours of dark at 20 lux) from the second week, should encourage activity and benefit leg health." (B10) and "An 8 h scotoperiod generally appears to be associated with low fear levels. Fearfulness has generally been found to be higher under continuous or near-continuous light than under constant light (16L:8D) (Sanotra et al., 2002; Onbařilar et al., 2008; Bayram and Özkan, 2010; Toplu et al., 2016)., Leg health, leg bone quality and FPD benefit from a longer scotophase (see B3.3g and B3.4a). Lewis and Gous (2009) report a negative linear relationship between eye weight and photoperiod (2-21 h light). Heavier eyes (macrophthalmia) are also reported in continuously illuminated birds (Lewis and Gous, 2009; Schwean-Lardner et al., 2013). These results indicate that normal ocular development in broilers requires a maximum photoperiod of 20 h and that short photoperiods, in addition to continuous illumination, may be harmful for eye health., Bayram and Özkan (2010) also observed that birds maintained under a 16L:8D photoperiod displayed greater sociality (as assessed by social reinstatement runway tests), compared to birds exposed to continuous lighting." (B8.1)

-For Turkeys "Day length can influence behaviour, the incidence of skeletal abnormalities, mobility, growth and eye health, and so ultimately the welfare of domestic birds (Vermette et al., 2016). Day length still has an impact, even when lighting programs are maintained at low light intensities (2 lux) (Vermette et al., 2016). Day length has a more pronounced effect on the welfare of toms than hens, but linear effects on mobility, breast blisters and altered eye size were noted for both toms and hens in one study that considered daylengths of 14 to 23h (Vermette et al., 2016). Behaviour was only measured in toms, but the reduction in active behaviours and increase in resting suggests that the toms were experiencing lethargy and a lack of ability or motivation to perform some behaviours with increasing day length (Vermette et al., 2016)." (T7.1)

GA6.2 Chicks up to 7 days old should have a maximum light period of 23 hours in a 24 hour period.

Amend and upgrade to Standard- *Chicks must have 8 hrs of continuous dark.*

The Review found that " Van der Pol et al. (2015) observed that exposing newly hatched chicks to continuous light (24L:0D) for 4 days increased leg bone development and leg bone asymmetry, compared to chicks exposed to intermittent lighting (2L:1D or 2L:6D)., An 8 h scotoperiod generally appears to be associated with low fear levels. Fearfulness has generally been found to be higher under continuous or near-continuous light than under constant light (16L:8D) (Sanotra et al., 2002; Onbařilar et al., 2008; Bayram and Özkan, 2010; Toplu et al., 2016)."

## Temperature and Ventilation

SA7.2 A person in charge must ensure that mechanically ventilated sheds have: 1) a back-up power supply that is tested weekly; and 2) automatic alarm systems to warn

immediately of ventilation failure; and 3) a system in place to respond and take action at the first reasonable opportunity.

*Amend Standard- A person in charge must ensure that mechanical cooling, heating, feeding and watering and ventilation in sheds have: 1) a back-up power supply that is tested daily; and 2) automatic alarm systems to warn immediately of ventilation failure; 3) a system in place to respond and take action immediately upon alert 4) Every shed must have at least one person located within the shed monitoring the poultry 24 hrs daily.*

If the community is expected to believe that the industry cares about the welfare of animals, it has have at least one individual located within the shed providing 24hr supervision of the poultry and therefore having the ability to take immediate, effective action in case of system failure.

SA7.3 A person in charge must monitor ammonia levels and ensure immediate corrective action is taken if ammonia levels reach 20 ppm at bird level in sheds.

*Amend Standard to incorporate the recommendations of Animals Australia for the maximum level of ammonia levels within sheds for each species.*

GA7.1 Rapid changes in temperature should be avoided where possible.

*Amend and upgrade to Standard- Rapid changes in temperature must be avoided via alarm systems.*

GA7.3 Temperature and poultry behaviour should be monitored more frequently at maximum stocking densities and during extreme weather conditions.

*Amend and upgrade to Standard- Temperature and poultry behaviour must be monitored 24hrs a day by a person located within the shed.*

If the community is expected to believe that the industry cares about the welfare of animals, it has to have at least one individual located within the shed providing 24hr supervision of the poultry and therefore having the ability to take immediate, effective action in case of adverse welfare events.

GA7.4 Corrective action should be taken immediately if signs of stress (sneezing, prolonged panting and wing extension due to heat or huddling due to cold) are observed.

*Upgrade to Standard.*

GA7.5 Extra attention should be paid to ventilation at maximum stocking densities and during extreme weather conditions.

*Upgrade to Standard*

GA7.6 Air quality parameters, such as temperature, humidity and ammonia levels, should be monitored and recorded on a daily basis. Poultry should be monitored for

eye and nasal irritation that might indicate ammonia, dust or other air quality problems.

#### Upgrade to Standard.

GA7.8 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 setting so that alarms are easily heard

all-hours response availability with restoration of power or emergency ventilation within 15 minutes.

*Upgrade to Standard- Alarm systems for mechanically cooled, heated, ventilation, feed and watering and fire fighting services in sheds must have: • back-up power • the ability to detect if the shed temperature is too high or too low, if feed and water has stopped, if fire has broken out and if there is a power failure in any power supply phase • appropriate setting so that alarms are easily heard • all-hours response availability with restoration of power or emergency ventilation within minutes.*

An unacceptably high number of animals can die in shed within 15 minutes due to the intensive nature of the production system. If the community is expected to believe that the industry cares about the welfare of animals, it has have at least one individual appointed to provide 24hr supervision of the poultry within the sheds and therefore to take immediate action in case of system failure.

## Litter

SA8.1 Where litter is used, a person in charge must ensure litter material is suitable for the species and of a good quality.

*Amend Standard to incorporate recommendations of Animals Australia for litter requirements including litter material as suitable for each species and quality of litter.*

The Review provides strong evidence for the mandatory provision of litter to meet the behavioural needs of poultry thus reducing aggression as well as to reduce health issues:

-For Laying chickens “EC rules specify at least 0.025 m<sup>2</sup> of littered area per hen with at least one third of the floor area being litter (1999/74/EC). Reduced foraging opportunities appear to interact with high levels of bird fearfulness or stress to increase the overall risk of feather pecking. Ideally good quality litter should be present during rear, with many studies showing that early feather pecking in chicks or young pullets is prevented or reduced by the provision of good quality litter substrates (Huber-Eicher and Sebö, 2001b; Chow and Hogan, 2005; Bestman et al., 2009).”

“Injurious severe feather pecking is a highly prevalent problem that results when normal exploratory or foraging pecking is directed towards other birds. Ideally good quality litter should be present during rear, with many studies showing that early feather pecking in chicks or young pullets is prevented or reduced by the provision of

good quality litter substrates (Huber-Eicher and Sebö, 2001b; Chow and Hogan, 2005; Bestman et al., 2009). Foraging materials were significantly more effective in reducing feather pecking than other enrichments such as dust-bathing substrates, or novel objects (Dixon et al., 2010).”(LH3.5b)

-For Broilers “Although sand is a ‘preferred’ substrate for performing dust-bathing and comfort behaviours, wood-shavings are a suitable alternative litter-type. When given a choice between sand and wood-shavings as litter, broilers increasingly performed the majority of their total behavioural time budget on sand (including preening and dust-bathing) (Shields et al., 2005; Toghyani et al., 2010), but if only one litter-type was provided (sand or wood-shavings) they performed all behaviours on either material with similar frequency (Shields et al., 2005),”Broilers reared on chopped straw had a reduced incidence and severity of FPD dermatitis compared to broilers reared on, less-absorbent, unchopped straw (Đukić Stojčić et al., 2016). Wood-shavings appear to be the most appropriate litter bedding type for controlling FPD; flocks reared on wood-shavings or sawdust exhibit less FPD (prevalence and severity) than those reared on chopped straw (Su et al., 2000; Meluzzi et al., 2008a; Berk, 2009; Bilgili et al., 2009; Nowaczewski et al., 2011; Kyvsgaard et al., 2013; Skrbic et al., 2015), rice husks (Petek et al., 2014; Jacob et al., 2016a), grass (Xavier et al., 2010; Garcia et al., 2012), or corncob litter (Xavier et al., 2010).

-For Turkeys”In commercial systems, the investigative and foraging behaviour of turkeys appears to be almost entirely beak based, rather than the ground scratching observed in other poultry species and in wild turkeys (Hughes and Grigor, 1996). Although environmental pecking reportedly decreases with age (Sherwin and Kelland, 1998), foraging does appear to be a highly motivated behaviour. Indeed, turkeys given access to a pasture on which to forage spend most of their time grazing (Karabayir et al., 2008). Lack of foraging opportunities in commercial systems has been associated with the performance of injurious pecking (Dalton et al., 2013).”( T4.3) and “When provided with appropriate conditions, for example, fresh shavings, domestic turkeys will engage in dust-bathing (Sherwin and Kelland, 1998) and this behaviour appears to be socially facilitated (Sainsbury and Sherwin, 2001). It is likely that turkeys are unable to perform this behaviour in typical commercial systems due to the formation of a non-friable crust on the litter”( T4.4 )

SA8.2 Where litter is used, a person in charge must ensure the risk of contamination of litter with toxic agents is minimal.

*Amend Standard- A person in charge must ensure the risk of contamination of litter with toxic agents is minimal.*

SA8.3 Where litter is used, a person in charge must manage litter to avoid excessive caking, dustiness or wetness that impacts on the welfare of poultry.

*Amend Standard- A person in charge must manage litter to avoid caking, dustiness or wetness and must ensure that litter remains dry and friable.*

GA8.2 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

*Upgrade to Standard- Poultry housed indoors must 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*

#### Handling and Husbandry

SA9.3 A person must free entrapped poultry at the first reasonable opportunity and if possible prevent this situation from recurring.

*Amend Standard- A person must free entrapped poultry without delay and prevent this situation from recurring.*

SA9.4 A person in charge must ensure that induced moulting is not routinely practiced.

SA9.5 A person in must ensure poultry are in adequate physical condition to endure an induced moult if necessary.

SA9.6 A person in charge must ensure that poultry induced to moult are: 1) in adequate physical condition to endure another lay cycle; and 2) not deprived of feed or water; and 3) not fed a high fibre/low energy diet for longer than 20 days or body weight loss of no more than 25%; and 4) provided with a calcium supplement.

*Remove SA 9.4-9.6, a complete ban on Induced Moulting is demanded. "The practice of moulting hens by removal or restriction of feed causes severe welfare problems of bird hunger, stress and unacceptable levels of mortality. These problems are not reduced or mitigated by feeding low-nutrient diets. Modern strains of laying hen are now available with increased durations of the first laying cycle (90 weeks or more) greatly reducing any perceived need to moult. Reduced egg production towards the end of the first laying cycle can occur due to fat deposition and lack of exercise, but this is primarily a problem associated with CC systems. There are no welfare benefits that could outweigh the welfare costs of this practice."(LH11)*

*The Review clearly acknowledges the severe welfare issue of forced moulting as "a consequence of keeping birds in conventional cages where they cannot exercise and become over-fat." Therefore a complete ban on moulting must be adopted in the Standards with a mandatory move away from conventional cages to non-cage systems that allow birds to exercise. The Review also notes that "the emergence of new strains of laying hens with longer productive first laying cycles (Bain et al., 2016) should see forced moulting become a redundant practice. In the UK many farmers are now depopulating flocks at 80 to 90 weeks, rather than 65-72 weeks as in the recent past."(LH8.3c)*

SA9.7 A person in charge must ensure that where wing and leg bands are used they are checked regularly and where necessary, loosened or removed.

*Amend Standard- A person in charge must ensure that where wing and leg bands are used, they are checked daily and where necessary, loosened or removed.*

SA9.9 A person must not perform desnooding or dubbing for cosmetic purposes on poultry.

SA9.10 A person must only perform desnooding, dubbing, despurring and web marking on day old hatchlings selected as potential breeders.

SA9.11 A person must only perform toe trimming on day old hatchlings selected as potential breeders, except for emus and ostriches which may have toes trimmed on commercial stock up to 5 days of age.

*Remove SA9.9-9.11 and replace with Standard-A person must not perform desnooding, dubbing, despurring, toe trimming and web marking on poultry unless undertaken by a veterinarian.*

Painful procedures on poultry including the surgical removal of the snood of turkeys, the removal of combs of layer hens and despurring of male broiler breeders must be banned and non-invasive management strategies must be used like provision of adequate space for poultry species to escape aggression, the use of enrichment to minimise aggression and genetic selection. The Review provides evidence of the welfare costs from procedures for example;

- For Hens“In Europe pullets are not subjected to comb or wattle trimming (“dubbing”). However, in the USA, up to 19 million pullets have their combs trimmed to improve production efficiency, as trimmed birds consume marginally less food. Apart from the likely pain caused by cutting an enervated tissue, comb trimming reduces the ability of hens to thermoregulate during hot weather. During and after a 50 h period at 34.6 °C, comb-trimmed birds showed greater signs of heat stress (panting and wing spreading) and highly significantly increased mortality in comparison with controls (Al Ramamneh et al., 2016). ( LH8.3d)

- For Turkeys“Prior to moving from commercial hatcheries, turkey poults undergo a number of procedures before being placed in rearing facilities. The poults are sexed, and then depending on the requirements of the rearing facility, they have their beaks and toes trimmed, their snood removed (males only) and are injected with nutrients and/or medications before being held without food or water prior to placement. The combined effect of these procedures is stressful (Donaldson et al., 1991; 1994) and there is likely to be significant pain associated with beak trimming, toe trimming and snood removal. (T8.2a)

- For Boiler Breeders“Toe clipping and de-spurring are carried out on males to prevent the inside claws and spurs from causing feather damage and severe skin lesions to the females during mating; de-spurring also reduces the risk of damage to other males during fighting. Toe clipping may also be utilised for identification of grandparent chicks (AHAW, 2010). Although some of these mutilations may have long-term benefits, the procedure will, at least transiently, compromise bird welfare. Removal of toes (usually the toe that points backwards or inwards) is performed using a hot blade or hot wire, while de-spurring is carried out by thermo-cautery (holding the spurs against a hot metal surface). Even brief physical restraint can elevate underlying fear levels in broilers (Marin et al., 2001), while the mutilation itself will induce acute and/or chronic pain since these tissues are well innervated (Gentle and Hunter, 1988). De-toeing may lead to the formation of small neuromas,

the welfare implications of which are difficult to predict (Gentle and Hunter, 1988) although, if associated with chronic discomfort, may impact upon perching behaviour. No studies describe the long-term impact of de-toeing or de-spurring on male chicken welfare. If improvements in housing conditions, management or genetic breeding programmes can alter male breeder mating behaviour then the requirement for mutilations may become redundant. (BB8.4b) and “Mating aggressiveness also appears to have genetic origins and could be targeted in breeding programmes. If this could be decreased then the requirement to mutilate would also be lessened. The provision of environmental enrichment may prove beneficial in the short-term. The ratio of male to female birds must also be considered. Males and females are routinely beak trimmed to reduce injurious pecking, while males are often subjected to additional mutilations, such as toe and spur removal, to limit the physical damage inflicted upon other males and females. However, these procedures are conducted in the absence of good quantitative evidence about their potential beneficial effects.(BB9)

- For Turkeys”microwave claw processor (MCP), is the industry’s response to the risk of downgrades from scratching (Fournier et al., 2014). ...”It has been suggested that (for broilers) the pain caused by toe-trimming early in life may be outweighed by the chronic pain the birds would have endured later in life from lacerations and subsequent infections that would have resulted from the toes and claws of the other birds if these had not been removed (Wang et al., 2008). However, no evidence on the prevalence of such lacerations was presented to support this opinion. ...” “In the longer term (133 days post-procedure), there was behavioural evidence that while the trimmed birds did not appear to be in pain they were more reluctant to walk perhaps due to instability resulting from the removed toe tissue impairing their balance (Fournier et al., 2015). Research on heavy toms suggests that feed consumption and consequently body weight, and the incidence of rotated tibiae can be negatively affected by MCP toe trimming, while no positive effect on carcass scratches was detected (Fournier et al., 2014). In light of these combined findings, the expense and negative welfare impact of trimming does not appear to be compensated by improved productivity and carcass quality (Fournier et al., 2014)”(T8.2)

-For Ostriches” De-clawing is a practice that is permitted primarily to reduce skin damage and improve the quality of ostrich leather products (it may also reduce the risk of injury to human handlers). From a welfare perspective de-clawing is a major and substantial concern. Given the high enervation of the toe region, the removal of toes with a hot blade without analgesic or anaesthetic provision, is likely to cause severe pain, at least over the short-term. Research should be conducted on strategies to reduce skin damage in other ways (e.g. by ensuring stable and compatible groups of birds, ensuring low competition for resources, providing areas of abrasive flooring to blunt claws naturally) and on improved handling practices so that de-clawing is no longer (as in some other countries) deemed a necessary practice.(OS9)

-For Emus ”As for ostriches, de-clawing may be practiced to reduce skin damage and reduce risk of injury to human handlers. The comments given for ostriches on the welfare impact of this practice apply also to the emu. In addition, unlike for the ostrich, the effect of de-clawing on skin damage does not appear to have been

quantified (at least in the scientific literature) and so it is not possible to assess the balance of harm against benefit.( EM7)

SA9.12 A person must use appropriate pain relief when carrying out surgical procedures on poultry.

*Amend Standard- A person must use appropriate pain relief when carrying out surgical procedures on poultry and provide appropriate pain relief after the procedure.*

SA9.14 A person must use appropriate tools and methods to trim the beaks of poultry.

SA9.15 A person must not remove more than one-third of the upper and lower beaks.

*Remove Standard SA9.14-9.15- A person must not perform beak trimming unless under veterinary advice and only if the person has appropriate qualifications from a nationally accredited provider.*

The Review acknowledges the serious negative welfare outcomes of painful surgical procedures like de beaking. The Review sets out clear evidence for alternatives to beak trimming including provision of foraging material appropriate to each species and genetic selection and improved management to reduce prevalence of feather pecking for example;

-For layer hens “Absent or poor-quality litter is thus a major risk factor for injurious pecking (IP) (Huber-Eicher and Wechsler, 1998; Nicol et al., 2001), with an inverse relationship seen between time spent foraging on harmless substrates and time spent feather pecking (Klein et al., 2000). Reduced foraging opportunities appear to interact with high levels of bird fearfulness or stress to increase the overall risk of feather pecking. This interactive effect was demonstrated in a study by El-Iethy et al. (2001) where birds housed on litter performed, as expected, less feather pecking than birds housed on slats. But if the litter-housed birds were directly fed corticosterone, increasing their plasma concentrations to levels seen under physiological stress, feather pecking rates increased significantly. The important link with foraging has implications for considering feeding practices to reduce the risk of injurious pecking.”(LH3.5) and “Ideally good quality litter should be present during rear, many studies showing that early feather pecking in chicks or young pullets is prevented or reduced by the provision of good quality litter substrates (Huber-Eicher and Sebö, 2001b; Chow and Hogan, 2005; Bestman et al., 2009).”, “Foraging materials were significantly more effective in reducing feather pecking than other enrichments such as dust-bathing substrates, or novel objects (Dixon et al., 2010).”(LH 3.5b)

-For Boiler Breeders” Mating aggressiveness also appears to have genetic origins and could be targeted in breeding programmes. If this could be decreased then the requirement to mutilate would also be lessened. The provision of environmental enrichment may prove beneficial in the short-term. Elevated structures and vertical

panels in particular would provide cover and offer a means for subordinate males or females to escape conflict and unwanted sexual attention. The ratio of male to female birds must also be considered.”(BB9)

-For Ducks” Bill trimming should be avoided unless absolutely necessary. Studies have shown that trimming reduces bill use for up to one week. This suggests the procedure causes pain. Alternative strategies to reduce inter-bird pecking damage including the provision of opportunities for natural foraging behaviour can be implemented to avoid the need for bill trimming.”(D11)

-For Turkeys” *trimming* It has been suggested that beak trimming itself may lead to the development of feather pecking as the birds become frustrated over their impaired ability to grasp feathers and become highly motivated to continue the behaviour until the pecking and pulling action is complete (Dalton et al., 2013). As in chickens, there is also the risk that beak trimming will lead to the development of chronic pain in beak trimmed birds.”(T8.2a)

**SA9.16 A person must not use blinkers or contact lenses on poultry unless under veterinary advice.**

*Amend Standard- A person must not use blinkers or contact lenses on poultry.*

Given the high welfare implications from the use of Spectacles and Bits, the Review recommends the use of alternatives to reduce aggression for example;

-For Pheasants” Conversely the long term effect on biochemical indices of stress was greater for pheasants fitted with spectacles than for beak trimmed pheasants. It may be that while beak trimming is more invasive and painful in the short term, feeding and pecking behaviour adapts, thus the long term impact is less than in the case of fitting spectacles, where vision continues to be impaired for the duration of the laying period.(PHS5.2a),”Feather pecking and cannibalism present a significant welfare problem. While the methods employed for reducing or preventing these behaviours in pheasants appear to be effective, they have significant welfare implications in their own right. Consequently it would be preferable if beak trimming, and fitting spectacles and bits were used only as a last resort. In the first instance welfare could be improved by reducing the risks of feather pecking by other methods, such as appropriate levels of fibre and protein in the diet, minimising stocking density and using sight barriers in open pens. Farmers may also consider the management techniques suggested for reducing injurious pecking in laying hens.(PSH6)

-For Partridges”As for pheasants, partridges may be fitted with beak bits to prevent feather pecking. It is likely that partridges experience the same negative welfare consequences of biting as pheasants. Beak bits have also been associated with beak infection and necrosis which reduces welfare.”

As with laying hens and pheasants, partridges perform feather pecking behaviours, and like those species various methods of preventing or reducing the effects of feather pecking are routinely used. As for pheasants, beak bits may be fitted to partridges to prevent them fully closing their beaks and thus reduce the damage they are able to cause through feather pecking. Various negative welfare consequences of fitting bits to pheasants are outlined in the pheasant section (PHS5.2a); less work has examined the effects of biting in partridges, although it is not unreasonable to assume the consequences may be the same.”( PTR6.4)

### Hatching systems

SA9.18 A person must monitor incubators at regular intervals during hatching and hatchlings that are found outside the trays must be returned to the tray or placed in brooders as soon as possible.

*Amend Standard- A person must monitor incubators at regular intervals during hatching and hatchlings that are found outside the trays must be returned to the tray or placed in brooders immediately upon identification and without delay.*

SA9.20 A person in charge must ensure cull or surplus hatchlings awaiting disposal are treated humanely and are killed as soon as practicable.

*Amend Standard- A person in charge must have the appropriate qualifications from nationally accredited provider and must ensure cull or surplus hatchlings awaiting disposal are treated humanely and are killed without delay.*

GA9.2 Poultry should be managed at a stocking density that takes the following 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

### Upgrade to Standard

GA9.4 A person should not carry more than 4 birds in each hand.

GA9.6 Mechanical catchers, where used, 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.

*Replace GA 9.4 and GA9.6 with Standard –Mechanical catchers must be used instead of Manual catchers.Mechanical catchers must be designed, operated and maintained to prevent injury, stress and fear to birds.A contingency plan must be available in case of mechanical failure.*

The Review found that manual catching has extreme welfare implications for poultry.For Boilers” *manual catching very stressful, most likely associated with being hung in an inverted position; mechanical catching offers the potential for reduced stress and injuries in broilers.* Mechanically catching broilers with a sweeper-type catching machine under commercial conditions has been found to significantly reduce the number of injuries, especially leg injuries, compared with manual catching

(Knierim and Gocke, 2003).”(B9.5) and for Turkeys” As for broilers, there is evidence that automated catching can reduce damage to turkeys and that it is a less stressful procedure than manual catching (Prescott et al., 2000).(T8.2E)

GA9.7 Poultry that are identified as unfit or injured before or during the catching procedure should be humanely killed immediately.

*Amend and upgrade to Standard- Poultry that are identified as unfit or injured before or during the catching procedure must be killed immediately, in accordance with species specific Standards in Part B. The person carrying out the killing must have the relevant qualifications under a nationally accredited scheme.*

GA9.8 Where poultry are moved on conveyor belts, the maximum height difference between consecutive conveyor belts should not exceed 40 cm.

*Upgrade to Standard.*

GA9.10 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.

*Amend and upgrade to Standard- Cutting of feathers including the wing feathers from live birds should only be carried out by a person who is accredited by a nationally recognised scheme and under the advice of a veterinarian.*

GA9.12 New, more humane technologies and methods for performing physical alterations should be adopted as they become available.

*Upgrade to Standard*

GA9.13 Beak trimming, when undertaken, should be done using an infrared beam within 3 days of hatching.

*Amend and upgrade to Standard- Beak trimming must only be carried out under veterinary advice and must be done using the most humane available technology within 3 days of hatching. Pain relief must be provided during and after the procedure.*

GA9.14 If therapeutic beak trimming is required, it should be carried out by trained and skilled personnel at as early an age as possible and care should be taken to remove the minimum amount of beak necessary using a method which minimises pain and controls bleeding.

*Amend and upgrade to Standard- If therapeutic beak trimming is required under veterinary advice, it should be carried out by personnel accredited under a nationally recognised scheme, within three days of hatching and care must be taken to remove the minimum amount of beak necessary using a method which minimises pain and controls bleeding.*

GA9.15 Alternative strategies for managing injurious (feather) pecking that minimise the need for beak trimming should be employed.

### Upgrade to Standard

GA9.16 Where exceptional circumstances necessitate induced moulting should only be carried out; • when replenishing a flock in event of a disease outbreak • where there is limitation of available grower space • when there is limited availability of day old pullets.

GA9.17 Alternative strategies for inducing moulting that minimise the need for feed restriction should be explored.

*Remove GA9.16-9.7-Induced moulting must not be permitted under any circumstances.*

GA9.20 Hatching trays with live young birds should be moved smoothly. Trays should be tipped to remove chicks and unhatched residue in such a way that the birds do not pile or become trapped.

*Amend and upgrade to Standard- Hatching trays with live young birds should be moved smoothly. Trays must not be tipped to remove chicks.*

### Humane Killing

SA10.2 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:

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

*Amend this Standard- All persons involved in the slaughter process must have the relevant qualifications from a nationally accredited scheme to ensure that they trained to kill poultry that are suffering and need to be killed without delay.*

*It is completely unacceptable to the community that poultry are being killed by unqualified persons given the potential high welfare implications for the bird. If all persons involved in the slaughter process are trained under a nationally accredited scheme, there will be no reason for unqualified persons to kill animals in an amateur way potentially causing unnecessary pain and distress to the bird.*

SA10.3 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 killed at the first reasonable opportunity.

*Upgrade Standard-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 killed at without delay.*

GA10.1 Humane killing protocols should be documented.

### Upgrade to Standard

GA10.2 Acceptable methods should be used for the humane killing of poultry, these are

- cervical dislocation or decapitation for poultry less than 6 kgs
- stunning by blunt trauma followed by decapitation or bleeding out for poultry over 6 kgs
- electrical stunning
- gas using carbon dioxide or a mixture of inert gases
- captive bolt
- firearm
- immediate fragmentation/maceration for unhatched eggs and day-old chicks.

#### Upgrade to Standard

GA10.3 When using gas, 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 2 minutes following collapse.

The above Guideline must be upgraded to a Standard and must incorporate the recommendations by Animals Australia for the maximum period of exposure for each bird to achieve collapse and the length of time poultry should remain in the gas following collapse.

The Review clearly states that time taken for loss of consciousness influences the number of broken bones wing bones sustained by the bird," The disadvantages of CAS systems are that during the time it takes to lose consciousness the birds may experience the unpleasant effects of carbon dioxide exposure, and convulsions including wing flapping resulting in broken bones may occur while they have some level of consciousness."(SL2.3G)

GA10.4 When using gases to kill poultry a mixture of inert gases with a modified atmosphere containing at least 45% CO<sub>2</sub> and up to 80% CO<sub>2</sub> should be used.

The above Guideline must be upgraded to Standard and must incorporate the recommendations of Animals Australia for the minimum and maximum percentage of CO<sub>2</sub> to be used for killing poultry with inert gases and for the duration at which each combination of gas is used on poultry .Bi-Phasic or stepped stunning where the concentration on CO<sub>2</sub> was gradually increased, must be used rather than single concentration of inert gases or CO<sub>2</sub> combined gases to avoid severe wing flapping resulting in broken bones while the animal is conscious.

The Review found that using a bi-phasic stun or stepped stunning had less welfare implications than using inert gases only.

" Trials with the bi-phasic stunning and killing indicated that no wing flapping occurred until the EEG signals were suppressed indicating that the birds were

unconscious. The number of bouts of wing flapping and the duration of these bouts was also lower with the bi-phasic stun compared to the hypoxic atmosphere. Gerritzen et al. (2013a) reports trials using carbon dioxide without other added gases where the carbon dioxide concentration is increased in a series of steps. In one approach the carbon dioxide concentration is increased in four steps from zero to 40% in 240 s after which the concentration rose rapidly in one more step to 65%. In the second the concentration of carbon dioxide rose in three steps from zero to 50% in 135 s after which the concentration rose rapidly in one more step to 65%. In the case with more rapid rise in carbon dioxide concentration some wing flapping was observed before the EEGs showed strong suppression. However, with the more gradual rise in concentration no wing flapping occurred until more than one minute after the EEGs showed suppression. FAWC (2012) proposed that the use of a gradually increasing concentration of carbon dioxide produced an acceptable stun/killing system for broilers.”(SL2.3f)

GA10.5 Equipment that crushes the neck and methods of cervical dislocation that require spinning or flicking of the bird by the head should not be used.

Upgrade to Standard

### **Confirming death in poultry after humane killing**

GA10.6 Three or more signs should be observed to determine whether the method used for humane killing has caused death.

*Note: Signs of death include:*

- loss of consciousness and deliberate movement including eye movement
- absence of a corneal ‘blink’ reflex when the eyeball is touched, or
- 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 only in the neck area.

Upgrade to Standard.

### **Bleeding out (exsanguination)**

GA10.7 Bleeding out of unconscious poultry should be done using a suitable, sharp blade.

Upgrade to Standard.

### **Slaughter at Poultry establishments**

SA11.3 A person must ensure that if poultry are not fit for slaughter they will be killed humanely.

*Amend and upgrade Standard- A person must ensure that if poultry are not fit for slaughter they will be killed humanely by a person who has appropriate qualifications under a nationally recognised scheme.*

GA11.1 All holding areas should be managed to allow adequate ventilation. e.g. corridors between stacked crates.

*Upgrade to Standard.*

GA11.2 All poultry in holding areas should be checked at a minimum of every 2 hours for welfare. Checks should be recorded on the daily monitoring form.

*Amend and upgrade to Standard- All poultry in holding areas should be monitored continuously for welfare.*

*The catching and transport process for poultry is highly stressful and also has very poor welfare outcomes given the physical deterioration of poultry during the rearing process at commercial premises. When poultry arrive at slaughter establishments, they must be continuously monitored for signs of injury and distress during the holding process, given the volume of birds and the cramped conditions in which they are transported will make it difficult to identify issues as they arise from just a cursory check every two hours.*

GA11.3 Contingency plans for stunning should include stopping processing and return poultry to holding/growing areas, second electrical stunner, captive bolt etc.

*Upgrade to Standard.*

GA11.4 The lairage at the processing plant should be covered to provide shelter and shade and be fitted with fans and misting equipment to allow cooling of poultry as required.

*Upgrade to Standard.*

### **Shackling — Electrical stunning systems**

GA11.5 The shackle should be able to accommodate the shanks of birds of different size and weight without causing undue trauma to the birds.

GA11.6 If poultry are shackled they should be suspended head downwards from shackle lines for a short time to allow them to settle before stunning.

GA11.7 Shackling of poultry should occur in a purpose built area with a maximum light level of 5 Lux.

GA11.8 If poultry are shackled a breast comforter should be installed from the end of the shackling point to the stunner and be operating in a manner that does not cause injury to poultry.

### **Stunning — Electrical stunning systems**

GA11.9 Poultry should not be suspended from the shackling line for more than 3 minutes for domestic fowl and turkeys before they are stunned.

GA11.10 Equipment and procedures for stunning should ensure that poultry are immediately rendered unconscious without receiving pre-stun shocks.

GA11.11 Effective electrical water bath operation should include:  
-effective earthing

- proper adjustment of the water height in the water bath according to the size of the bird

-proper construction of the entry ramp

-correct immersion of the birds in the water ramp

-proper adjustment of the voltage and amperage to the age and size of the bird.

[Remove GA 11.5-11.11 from the Standards and Guidelines as the community rejects the cruelty of shackling systems due to the extreme suffering of poultry from having their limbs broken and dislocated during the shackling process and the time they are inverted. The killing of poultry via shackling and inverted electric bath stunning must be banned.](#)

### **Stunning — controlled atmosphere systems**

GA11.12 The module unloader should be checked at the end of each batch of birds to ensure no birds have fallen to the floor or are trapped in the loader unit. Fallen or trapped birds should be either placed into the gas stunning unit's entry point or, if injured, immediately killed.

[Upgrade to Standard](#)

GA11.13 Poultry should not be subjected to the gas mixture until the correct concentration has been reached.

[Upgrade to Standard](#)

GA11.14 Gas stunning units should have windows or other surveillance to allow observation of the birds to verify that the gas mixture is rendering birds insensible with minimal distress.

[Upgrade to Standard](#)

### **Bleeding out**

GA11.15 Bleeding out times prior to immersion for scalding or prior to plucking should not be less than 90 seconds for domestic fowl and 2 minutes for turkeys.

[Upgrade to Standard and incorporate the recommendations of Animals Australia for the minimum bleeding out times for poultry.](#)

## PART B

### Laying chickens

SB1.1 A person in charge must not allow the excreta of laying hens in cages to accumulate to the stage that compromises poultry health and welfare.

SB1.2 A person in charge must ensure multi deck cages are arranged so that the poultry in the lower tiers are protected from excreta from above.

SB1.3 A person in charge must ensure poultry in cages are 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.

Standards SB1.1 - 1.3 must be removed as the community demands an immediate phase out of all caged egg production systems.

SB1.4 A person in charge must ensure that, for useable areas and any area occupied by feeding and watering equipment and nest boxes, on one or more levels ensure that; 1) each level is easily accessible to the hens 2) headroom between the levels is at least 45 cm 3) all levels are accessible to stock workers to observe and reach birds which are sick or injured 4) feeding and watering facilities are distributed to provide equal and ready access to all hens; and 5) levels are sited so as not to foul birds below.

SB1.4 must be amended to incorporate the optimum head room between levels as recommended by Animals Australia if it differs from the minimum headroom of 45cm provided in the above Standard.

SB1.5 A person in charge must ensure that after the training period, where hens are housed under artificial light, lighting schedules must provide a minimum of 4 hours of continuous darkness in each 24-hour period.

*Amend Standard- A person in charge must ensure that after the training period, where hens are housed under artificial light, lighting schedules must provide a minimum of 8 hours of continuous darkness in each 24-hour period.*

For their health and welfare, chickens must be allowed to sleep in darkness for at least 8 hours a day, and 'daylight' hours must be adequately bright to allow freedom of movement and healthy eye development. The Farm Bird Welfare Review provides evidence that broilers benefit from 8 hrs of continuous darkness:

"For Broilers"an appropriate photoperiod (e.g. 16 hours of light:8 hours of dark at 20 lux) from the second week, should encourage activity and benefit leg health." (B10) and "An 8 h scotoperiod generally appears to be associated with low fear levels. Fearfulness has generally been found to be higher under continuous or near-continuous light than under constant light (16L:8D) (Sanotra et al., 2002; Onbařilar et al., 2008; Bayram and Özkan, 2010; Toplu et al., 2016)., Leg health, leg bone

quality and FPD benefit from a longer scotophase (see B3.3g and B3.4a). Lewis and Gous (2009) report a negative linear relationship between eye weight and photoperiod (2-21 h light). Heavier eyes (macrophthalmia) are also reported in continuously illuminated birds (Lewis and Gous, 2009; Schwean-Lardner et al., 2013). These results indicate that normal ocular development in broilers requires a maximum photoperiod of 20 h and that short photoperiods, in addition to continuous illumination, may be harmful for eye health., Bayram and Özkan (2010) also observed that birds maintained under a 16L:8D photoperiod displayed greater sociality (as assessed by social reinstatement runway tests), compared to birds exposed to continuous lighting.” (B8.1).

It is reasonable to infer that the same applies to layer hens and therefore must be provided with 8hrs of continuous dark daily.

### Stocking Densities Cage Systems

Standards SB1.6-1.7 must be removed as the community demands an immediate phase out of caged egg production systems.

### Stocking Densities Non – Caged Systems

SB1.8 A person in charge must not exceed a stocking density of 30 kg/m<sup>2</sup> (measured as bird density in the useable area) for rearing laying pullets and for managing adult laying chickens.

The Standard above must incorporate the recommendations by Animals Australia for the stocking density for laying pullets and adult laying chickens as submitted by Animals Australia.

GB1.1 The slope of the floor should not exceed 8 degrees. Where mesh flooring is used, the mesh size should be less than 25 mm x 25 mm.

*Amend and upgrade to Standard-“The slope of the floor should not exceed 8 degrees. Wooden slats must be used instead of plastic slats or mesh.*

Mesh and plastic slat flooring must not be used as the Review identifies welfare issues with these flooring types. It is recommended that wooden floors be used instead.

”Generally, the wire floors of cages are a risk factor for hyperkeratosis but exposure to dirty perches or litter increases the risk of bacterial infection. Heerkens et al. (2016b) found prevalences of 42% hyperkeratosis, 27.6% dermatitis and 1.2% bumblefoot in hens from 47 non-cage MT flocks. However, in a promising development, the provision of ramps between perches has been shown to have a strongly significant beneficial effect in reducing foot lesions in non-cage MT systems (Heerkens et al., 2016a).” And “Plastic flooring appears to have negative effects in comparison with wire mesh flooring, being associated with reduced plumage quality (Whay et al., 2007; Heerkens et al., 2015) and higher mortality and prevalence of wounds (Heerkens et al., 2015).(LH3.8)

### Lighting

GB1.2 The lighting system should provide a minimum period of 8 hours continuous artificial or natural lighting per day and a minimum period of 7 hours continuous darkness (with all lights off) to be provided at night, in every 24-hour period. The exception to this is during extreme heat where feeding birds during cooler parts of the day may be required to reduce the risk to their welfare.

*Amend and upgrade to Standard- The lighting system should provide a minimum period of 8 hours of natural lighting per day and a minimum period of 8 hours continuous darkness (with all lights off) to be provided at night, in every 24-hour period. The exception to this is during extreme heat where feeding birds during cooler parts of the day may be required to reduce the risk to their welfare.*

It is vital that animals are provided with natural light and at least 8 hrs of continuous darkness to replicate their conditions in the wild as closely as possible. Please refer to the commentary on the amendments to SA6.5 for further details.

GB1.3 The light intensity measured at bird head height across the laying facility, during the light period, should be at least 10 Lux.

*Please incorporate the recommendations by Animals Australia for the minimum lighting intensity for layer chickens into a Standard that replaces GB1.3.*

#### Litter

GB1.4 For tiered 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.

*Amend and upgrade to Standard- For tiered systems, the litter area must provide sufficient space to allow at least one third of the flock to forage and dust-bathe at any one time.*

GB1.5 When using litter, poultry should be given continuous access to litter 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.

*Amend and upgrade to Standard- Poultry should be given continuous access to litter immediately following placement.*

It is essential that layer chickens are not deprived of enrichment and instead are allowed to access litter and forage in the period after they lay eggs.

*The Review states that” When new birds arrive in the house, practices such as confining birds to the slatted areas near the nest boxes, not allowing access to litter substrates, not allowing access to the outdoor range, placing electrified wires on parts of the litter floor where eggs might be laid can inadvertently increase the risk of injurious pecking. Modifying these practices (e.g. to allow newly housed birds access to litter during afternoon periods when most egg laying has finished) can help solve both problems (Lambton et al., 2013).”*

GB1.7 Hens should be provided with a minimum of one single nest for every 7 birds or 1m<sup>2</sup> nesting box area for every 120 birds.

Please incorporate the optimum number of layer chickens per nest box or optimum nesting box area for a specified number of layer chickens as recommended by Animals Australia into a Standard that replaces GB1.7.

GB1.8 Nest boxes should be enclosed and provide a suitable floor substrate to encourage nesting behaviour.

Amend and upgrade to Standard- *Nest boxes must be enclosed and provide straw as a substrate to encourage nesting behaviour.*

The Review found that” The most important influence on nest selection, however, appears to be the provision of some form of nesting material (Freire et al., 1996; Struelens et al., 2008b). The sight alone of nesting material can trigger nesting behaviour in some birds (Hughes et al., 1995). Straw is preferred over peat or wood-shavings as a nesting material”(LH5.3)

GB1.9 Nest box flooring should not consist of wire or plastic-coated wire.

Amend and upgrade to Standard- *Nest box flooring must not consist of wire or plastic-coated wire. Rubber or artificial grass must be provided as nest box flooring material.*

” Improving nest box design e.g. with provision of preferred design features e.g. yellow nest walls (Huber-Eicher, 2004; Zupan et al., 2007), rubber or artificial grass rather than plastic nest floors (Buchwalder and Frohlich, 2011) and a relatively shallow slope of the floor (Stämpfli et al., 2011) are all features that hens prefer.”(LH5.3)

GB1.11 Where used during nest box training, nest box 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.

Upgrade to Standard

GB1.12 Where electric wires are used along walls and corners to prevent floor eggs, these should: • only be turned on in the morning during nest box training • be turned off in the afternoon • not be used once birds have learnt to lay in the nest.

Remove GB1.12 and replace with Standard- *Electric wires must not be used along walls and corners to prevent floor eggs.*

The Review recommends alternatives to the use of electric wires to train birds to use nests for laying eggs.

“When new birds arrive in the house, practices such as.... placing electrified wires on parts of the litter floor where eggs might be laid can inadvertently increase the risk of injurious pecking. Modifying these practices (e.g. to allow newly housed birds access to litter during afternoon periods when most egg laying has finished) can help solve both problems.”(LH5.3)

GB1.14 Perches should be provided at all times.

### Upgrade to Standard

GB1.15 Perches should be provided at not less than 15 cm per bird unless a producer is able to demonstrate that this would obstruct movement of birds and people throughout the laying facility in which case no less than 7.5 cm per bird is permitted.

*Amend and upgrade to Standard- Perches must be provided at not less than 15 cm per bird.*

The Review found that “In FCs a minimum length per bird of 15 cm (not including cross-points) is required to enable most birds to perch at the same time.”(LH4.2d)

GB1.16 Perches should be constructed and positioned to: • be raised above and not flush with floor areas • allow birds to access them • allow birds to stand in a normal posture • provide a comfortable support for the bird’s feet and keel bone • minimise the risk of injury • prevent vent pecking by birds below and/or behind • minimise soiling of birds below.

### Upgrade to Standard

GB1.17 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.

*Amend and upgrade to Standard- Birds must be given meaningful daily access to the veranda without delay following placement.*

The Review found that the management practice of keeping birds indoors without access to the veranda during the training period created the issue of injurious pecking. Modifying this management practices is recommended.

”When new birds arrive in the house, practices such as confining birds to the slatted areas near the nest boxes, not allowing access to litter substrates, not allowing access to the outdoor range, placing electrified wires on parts of the litter floor where eggs might be laid can inadvertently increase the risk of injurious pecking. Modifying these practices (e.g. to allow newly housed birds access to litter during afternoon periods when most egg laying has finished) can help solve both problems (Lambton et al., 2013).”(LH5.3)

GB1.18 The veranda should be designed and constructed to provide shade, natural light and good airflow.

*Amend and upgrade to Standard- The veranda must be designed and constructed to provide shade, natural light and good airflow and protection from rain and wind.*

GB1.19 The usable 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.

Upgrade to Standard and incorporate the recommendation of Animals Australia as to the optimum space allocation in the veranda to meet the foraging and dust bathing needs of the flock.

GB1.20 The roof of the veranda should be waterproof.

Upgrade to Standard.

#### Outdoor Area

GB1.21 Birds should at least have daily access to the outdoor area immediately after the egg laying period. The exceptions to this are during unsuitable weather conditions, while training birds to use the nests, under direct veterinary advice, during treatment specified in the Veterinary Health Plan, or on the day of depopulation.

*Amend and upgrade to Standard- Birds must have daily access to the outdoor area immediately after the egg laying period. The exceptions to this are during unsuitable weather conditions, under direct veterinary advice, during treatment specified in the Veterinary Health Plan, or on the day of depopulation.*

The exception” while training birds to use the nests” must be removed and instead modification of management to allow birds access to the outdoor area after laying must be adopted to prevent injurious pecking. Please see amendment to GB1.17 above for further explanation.

GB1.22 A daily record specifying the date and times of access to the outdoor area should be kept.

Upgrade to Standard.

GB1.23 At least 8 m<sup>2</sup> of natural and/or artificial overhead shade/shelter per 1000 birds should be provided and distributed across the outdoor area.

Upgrade to Standard and incorporate the recommendation of Animals Australia for minimum area of shade/shelter per 1000 birds in the outdoor area.

GB1.25 Feed and drinking water should not be provided in the outdoor area.

*Amend and upgrade to Standard- Drinking water must be provided in the outdoor area. Food must not be provided in the outdoor area.*

Poultry must have ad libitum water provided in the outdoor areas so that they are encouraged to spend time outside foraging without having their welfare compromised by the heat.

GB1.26 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 metres for each 1,000 birds.

Upgrade to Standard and incorporate the recommendations of Animals Australia for the minimum size of pop holes and combined total width for each 1000 birds.

### Colony Cages

GB1.27 A colony cage height should be at least 45 cm other than in the nest area.

GB1.28 A scratching area should be provided in colony cages. GB1.29 Suitable claw shortening devices should be fitted in colony cages.

GB1.30 The scratch pad area should be sufficient to allow all poultry to exhibit foraging behaviour.

GB1.31 All hens in colony cages should have access to dust-bathing material.

Remove GB1.27-1.31 as the community demands an immediate phase out of all caged egg production systems.

### Meat Chickens

SB2.1 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 each day except on the day of pickup (meat chickens) and meat chickens during very hot weather.

*This must be changed to a minimum of 8hrs dark for all broiler chickens including chicks. The Review clearly found that:*

-“Commercial broiler production is not generally designed to accommodate sleep and rest. The initial provision of continuous or near continuous bright light to chicks following placement within barns encourages high activity. Chicks attempting to sleep or rest are likely to encounter continual disturbance as large numbers of flock-mates move between the drinkers and feeders. birds reared under constant, or near-constant, light are at a higher risk of suffering from sleep fragmentation (i.e. are sleep-deprived). The provision of a distinct photoperiod could improve broiler welfare by promoting pronounced behavioural rhythms within a flock, and allowing them a distinct period of rest during the scotophase, as well as reducing disturbance from flock-mates during this period of rest (Alvino et al., 2009b).”(B8.1a)

-” Continuous or near-continuous daylength has a negative impact on many aspects of broiler health. H:L ratios are generally higher under continuous or near continuous light (24L:0D or 23L:1D) than under constant light (16L:8D: Onbaşilar et al., 2008; Coban et al., 2014; Das and Lacin, 2014; Toplu et al., 2016).”

-” Exposure to chronic stress is often seen to suppress immunity. Intermittent lighting (1L:3D), but not constant lighting (16L:8D), was seen to improve immune function compared to continuous lighting (24L:0D); spleen weight remained unaffected by lighting regime (Onbaşilar et al., 2007; 2008).” Activity (including the percentage of time spent standing, walking, feeding, drinking, preening, stretching, dust-bathing and litter pecking) decreases with increasing day-length (Sanotra et al., 2002; Bayram and Özkan, 2010; Schwan-Lardner et al., 2012) regardless of age or

stocking density. Schwean-Lardner et al. (2012) observed no behavioural advantage associated with the longest scotoperiod they tested (14L:10D), so they recommend a photoperiod of 16L:8D as optimum. Bayram and Özkan (2010) also observed that birds maintained under a 16L:8D photoperiod displayed greater sociality (as assessed by social reinstatement runway tests), compared to birds exposed to continuous lighting. Interestingly, dust-bathing was not observed in older broilers reared under 23L:1D (Schwean-Lardner et al., 2012). The reduction (or elimination) of locomotive, exploratory, social, comfort and nutritive behaviours, including those that are highly motivated, are likely to indicate reduced welfare in birds raised under constant, or near-constant, light.”(B8.1a)

-“an appropriate photoperiod (e.g. 16 hours of light:8 hours of dark at 20 lux) from the second week, should encourage activity and benefit leg health.” (B10) and “An 8 h scotoperiod generally appears to be associated with low fear levels. Fearfulness has generally been found to be higher under continuous or near-continuous light than under constant light (16L:8D) (Sanotra et al., 2002; Onbaşilar et al., 2008; Bayram and Özkan, 2010; Toplu et al., 2016)., Leg health, leg bone quality and FPD benefit from a longer scotophase (see B3.3g and B3.4a). Lewis and Gous (2009) report a negative linear relationship between eye weight and photoperiod (2-21 h light). Heavier eyes (macrophthalmia) are also reported in continuously illuminated birds (Lewis and Gous, 2009; Schwean-Lardner et al., 2013). These results indicate that normal ocular development in broilers requires a maximum photoperiod of 20 h and that short photoperiods, in addition to continuous illumination, may be harmful for eye health., Bayram and Özkan (2010) also observed that birds maintained under a 16L:8D photoperiod displayed greater sociality (as assessed by social reinstatement runway tests), compared to birds exposed to continuous lighting.” (B8.1)”

SB2.2 A person must not routinely undertake surgical procedures, such as beak trimming, on meat chickens.

*Amend Standard- A person must not undertake surgical procedures, such as beak trimming, on meat chickens unless under veterinary advice.*

The Review states that “broilers are not, generally, at risk of injurious pecking.” (B10), and therefore beak trimming must not be carried out unless under veterinary advice.

SB2.3 A person in charge must not exceed the following stocking densities for meat chickens:

*Amend SB2.3 to incorporate the recommendations of Animals Australia for the maximum stocking densities for meat chickens based on specific housing and ventilation systems.*

GB2.2 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.

Remove GB2.2 as the Review notes that unlike broilers, broiler breeders are routinely raised on plastic slats, and that the material may partially explain the high incidence of Foot Pad Dermatitis in broiler breeders.

“Kaukonen et al. (2016) observed foot pad condition to deteriorate towards slaughter age in breeder hens, at which point the majority (64%) of birds had severe FPD lesions (scored 4 on a 5-point severity scale). FPD score was positively associated with litter moisture, pH, and percentage slatted area; interestingly, litter condition in breeder houses did not appear to fully explain foot pad deterioration, since the maintenance of dry, friable litter over the whole production period did not guarantee foot health (Kaukonen et al., 2016). Unlike broilers, the feet of breeders make contact with plastic slats in addition to litter, and the elevated slats are often used for roosting; bird mass, time spent on the slatted areas, and slat design may all be important factors in determining FPD prevalence and severity in broiler breeders.”(BB3.8a)

GB2.4 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 metres for each 1,000 birds.

Upgrade to Standard and incorporate the minimum recommendations of Animals Australia for pop hole openings as well as total width of all opening per 1000 birds.

### Meat and Chicken Breeders

SB3.1 A person in charge must not allow the excreta of chicken breeders in cages to accumulate to the stage that compromises poultry health and welfare.

SB3.2 A person in charge must ensure multi deck cages are arranged so that the poultry in the lower tiers are protected from excreta from above.

SB3.3 A person in charge must ensure poultry in cages are 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.

SB3.4 A person in charge must ensure, in relation to useable areas on one or more levels of a multideck cage and for any area occupied by feeding and watering equipment and nest boxes that: 1) each level is easily accessible to the hens 2) headroom between the levels is at least 45 cm 3) all levels are accessible to stock workers to observe and reach birds which are sick or injured 4) feeding and watering facilities are distributed to provide equal and ready access to all hens; and 5) levels are sited as to minimise the risk of soiling birds below.

Remove SB3.1-3.4 as the community demands an immediate phase out of all caged production systems.

SB3.5 A person in charge must ensure that after the training period, where hens are housed under artificial light, lighting schedules must provide a minimum of 4 hours of continuous darkness in each 24-hour period.

*Amend Standard- A person in charge must ensure that after the training period, where hens are housed under artificial light, lighting schedules must provide a minimum of 8 hours of continuous darkness in each 24-hour period.*

The Review clearly states” A photoperiod of 16L:8D.....appears to be appropriate during the production period (lay). Lighting programmes for breeders are very similar to those recommended for laying hens, yet very different from those recommended for broilers. These usually comprise an 8 hour photoperiod during rear, then a transfer to a mildly stimulatory day length of 11-12 h at approximately 20 weeks, followed by a series of weekly increases in day-length to reach 15-16 h by 28 weeks (AHAW, 2010). Lewis (2006) suggests that 12 h days during production are perfectly adequate for optimising egg production and shell quality.”(BB7.1)

SB3.6 A person in charge must ensure meat and laying chicken breeders are not lifted or carried 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.

*Amend an upgrade Standard- A person in charge must ensure meat and laying chicken breeders are not lifted or carried by the head, neck, wings, feathers or tail feathers unless otherwise supported by the breast.*

To prevent muscular or skeletal injuries, Meat and layer chicken breeders must be carried supported by the breast.

### **Stocking Densities- Caged Systems**

Standards SB3.8 and SB3.9 which specify minimum space requirements for the caged production of chicken breeders must be removed. The community demands an immediate phase out on caged production systems.

### **Stocking Densities-Non – Caged Systems**

SB3.10 A person in charge must not exceed a stocking density of 30 kg/m<sup>2</sup> (measured as bird density in the useable area) for pullets and adult birds (including roosters)

*Amend Standard to incorporate the recommendation of Animals Australia for the minimum stocking density (measured as bird density in the useable area) for pullets and adult birds (including roosters) in non-cage breeder hen systems.*

GB3.1 Hens should be provided with a minimum of one single nest for every 7 birds or 1m<sup>2</sup> nest boxes for every 120 birds.

*Upgrade to Standard and incorporate the recommendations of Animals Australia for the minimum number of nest boxes available for a flock of breeder hens.*

GB3.2 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.

Remove GB3.2 as the Review notes that broiler breeders are routinely raised on plastic slats, and that the material may partially explain the high incidence of Foot Pad Dermatitis in broiler breeders.

“Kaukonen et al. (2016) observed foot pad condition to deteriorate towards slaughter age in breeder hens, at which point the majority (64%) of birds had severe FPD lesions (scored 4 on a 5-point severity scale). FPD score was positively associated with litter moisture, pH, and percentage slatted area; interestingly, litter condition in breeder houses did not appear to fully explain foot pad deterioration, since the maintenance of dry, friable litter over the whole production period did not guarantee foot health (Kaukonen et al., 2016). Unlike broilers, the feet of breeders make contact with plastic slats in addition to litter, and the elevated slats are often used for roosting; bird mass, time spent on the slatted areas, and slat design may all be important factors in determining FPD prevalence and severity in broiler breeders.”(BB3.8a)

## **Ducks**

General standards in Part A also apply to minimise risk to the welfare of ducks.

SB4.2 A person must not routinely trim the bills of ducks.

Amend Standard- A person must not trim the bills of ducks unless under veterinary advice.

The Review clearly states that” Bill trimming should be avoided unless absolutely necessary. Studies have shown that trimming reduces bill use for up to one week. This suggests the procedure causes pain. Alternative strategies to reduce inter-bird pecking damage including the provision of opportunities for natural foraging behaviour can be implemented to avoid the need for bill trimming.”(D11)

SB4.3 A person in charge must ensure bill trimming is carried out by a skilled operator at day old and only the rim at the front of the upper bill is to be removed.

*Amend Standard- A person in charge must ensure bill trimming is carried out by an operator with appropriate qualifications from a nationally recognised training provider, at day old and only the rim at the front of the upper bill is to be removed. Beak trimming must be carried out with pain relief before and after the procedure.*

SB4.4 A person in charge must ensure facilities are provided to allow ducks to dip their heads under water or misters/showers to allow ducks to wet preen, and to clean their eyes and nostrils.

*Amend Standard- A person in charge must ensure a range of facilities are provided to allow ducks to fully immerse themselves under water to allow ducks to wet preen, and to clean their eyes and nostrils and must be a different source to their drinking water.*

The Review found that Ducks had a preference for water sources that allowed full immersion so that they could perform dabbling, bathing and other normal behaviours. They performed a different range of behaviours at different source so a range must be provided.(D4.3)

SB4.5 A person in charge must ensure nest boxes are provided for duck breeders when in lay.

*Amend Standard- A person in charge must ensure nest boxes are provided for duck breeders when in lay. Nest Boxes must be enclosed with a roof and an entrance curtain.*

The Standard must also incorporate the minimum number of nest boxes for a certain number of ducks as recommended by Animals Australia.

Ducks have a preference for nest boxes that are enclosed, have an entrance curtain and preferably have an egg inside.(D4.1)

### **Space allowances**

SB4.6 A person must ensure the maximum recommended stocking densities for ducks are according to housing type and under good management conditions and as follows:

*Amend Standard to incorporate the recommendations of Animals Australia for maximum stocking densities for ducks housed indoors or in runs.*

The following must also be incorporated into the Standards and Guidelines:

- 1) Ducks must be given water from open troughs and not bell drinkers.  
Ducks will push through barriers to access troughs over bell drinkers.(D2)
- 2) All water sources must have adequate drainage provided to prevent foot diseases(D3.3)
- 3) High standard of biosecurity must part of contingency plans (D3.1)
- 4) Ducks must not be housed individually.(D11)
- 5) Ducks are susceptible to stress and can panic easily. Reducing levels of fear within the flock can be aided by walking through the housing regularly. Producers must consider the genotype they are using as some strains are more susceptible to stress.(D6)

General guidelines are also recommended in Part A to minimise the risk to the welfare of ducks.

### **Management practices**

GB4.1 Every effort should be made to avoid bill trimming by the appropriate selection of birds and the provision of conditions which reduce the tendency for adverse traits, such as cannibalism, to occur.

Upgrade to Standard.

GB4.2 Bill trimming should be carried out only when it is essential to reduce damage and suffering in flocks.

*Amend and upgrade to Standard- Bill trimming must only be carried out under advice of a veterinarian, by a person who has the appropriate qualifications from a nationally accredited training provider and only when it is essential to reduce damage and suffering in flocks.*

GB4.3 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.

Remove GB4.3 as for optimal duck welfare, water facilities for full immersion are necessary.

GB4.4 New technologies that provide surface water for ducks without compromising litter management or environmental outcomes should be investigated and adopted when they become available.

Upgrade to Standard

GB4.5 Handling ducks requires special skill and it should be undertaken only by competent persons who have been appropriately trained.

*Amend and upgrade to Standard- Handling ducks requires special skill and it should be undertaken only by persons who have appropriate qualifications under a nationally accredited training scheme.*

GB4.6 Handling ducks should be carried out quietly and confidently, exercising care to avoid unnecessary struggling which could bruise or otherwise injure ducks.

Upgrade to Standard.

GB4.7 In hot weather handling ducks should be carried out during the coolest part of the day.

Upgrade to Standard

GB4.8 Day-old and young ducklings should be picked up bodily in the palm of the hand or if handling groups by the neck.

*Amend and upgrade to Standard- Day-old and young ducklings should be picked up bodily in the palm of the hand and must not be handled by the neck.*

GB4.9 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.

[Upgrade to Standard and incorporate the recommendations of Animals Australia for flooring requirements for Ducks.](#)

## **Emus**

General standards in Part A also apply to minimise risk to the welfare of emus.

SB5.1 A person in charge must ensure that natural aggression is effectively managed.

[Amend Standard- A person in charge must ensure that natural aggression is effectively managed without using invasive procedures.](#)

## **Chicks**

SB5.2 A person must house chicks in groups of up to 200 for the first 4 weeks of life at a shed density of up to 30 chicks per m<sup>2</sup> provisional that adequate heating is provided to prevent huddling that would cause smothering.

[Amend Standard to incorporate the recommendations of Animals Australia for maximum housing density for chicks.](#)

## **Blackhead/Juvenile emus - 4 weeks to 12 months old**

SB5.3 A person in charge must ensure the maximum shed density for emus from 4 weeks to 4 months old is 10 per m<sup>2</sup> and above 4 months old is 2 per m<sup>2</sup>.

[Amend Standard to incorporate the recommendations of Animals Australia for maximum housing density for Juvenile Emus.](#)

SB5.4 A person in charge must ensure emus kept inside are provided with access to an outside run of at least 15 m x 2 m.

[Amend Standard to incorporate the recommendations of Animals Australia for minimum outside run access for Juvenile Emus.](#)

SB5.6 A person in charge must ensure stocking rates for birds raised in open conditions vary from 175 per hectare for dry or bare conditions to 250 per hectare for lush or irrigated conditions.

[Amend Standard to incorporate the recommendations of Animals Australia for maximum housing density for Juvenile Emus.](#)

## **Yearling emus – 12 months old to processing**

SB5.7 A person in charge must ensure yearlings are housed in open conditions at stocking rates from 100 per hectare for dry or bare conditions to 175 per hectare for lush or irrigated conditions.

Amend Standard to incorporate the recommendations of Animals Australia for maximum housing density for Yearling Emus.

### **Mature/Breeding emus**

SB5.8 A person in charge must ensure where emus are kept as breeding pairs, each pair are provided with a minimum pen size of 400 m<sup>2</sup> which must be securely fenced.

Amend Standard to incorporate the recommendations of Animals Australia for maximum housing density for Breeding Pairs.

Additional Standards that must be included in Standards and Guidelines;

- 1) De-Clawing must only be carried out by a veterinarian with pain relief provided before and after procedure.
- 2) Emus must not be fed low fibre diets.

The natural diet of the emu is highly varied, comprising both plant and insect material. Based on evidence from related farmed bird species, welfare problems may arise if emus are provided with low fibre diets designed to encourage rapid growth but direct evidence for effects of diet on welfare in this species is lacking.(EM7)

General guidelines are also recommended in Part A to minimise the risk to the welfare of emus.

### **Food and water**

GB5.1 Young chicks should not be fed fibrous or coarse food as it may become impacted and cause obstruction.

Upgrade to Standard

GB5.2 Care should be taken when changing the environment of emus in order to prevent impactions and nutritional imbalances.

#### Upgrade to Standard

GB5.3 Where chicks and yearlings are reared in groups of over 100, multiple feed points should be provided in each pen.

Upgrade to Standard and incorporate the recommendations of Animals Australia for minimum number of feed points for a given number of Emus.

GB5.4 Newly hatched chicks should have access to feed every 24 hours but this may be extended to not more than 48 hours.

Upgrade to Standard- Newly hatched chicks should have access to feed every 24 hours.

### **Housing and handling yards**

GB5.5 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.

GB5.6 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.

GB5.7 All fences in handling yards should be solid sided so that emus cannot see outside the confines of the yard.

#### Upgrade GB5.5-5.7 to Standards

GB5.8 In enclosed buildings, ammonia levels should not be allowed to exceed 20 ppm of air, measured at bird level, without immediate correction action being taken.

Amend and update to Standard to incorporate the recommendations of Animals Australia for the maximum level of ammonia in enclosed buildings.

### **Chicks**

GB5.9 To avoid injury to the chicks, separation of the hen or chicks should occur before the first chicks hatch.

GB5.10 Chicks should be given access to an outside run from 2 days of age depending on climatic conditions.

GB5.11 Outdoor areas for chicks under 4 weeks old should be covered to protect chicks from predation.

#### Upgrade GB5.9-5.11 to Standards

## Equipment

GB5.12 Feeders and waterers should be located well away from fence lines to avoid injury if conflicts occur while eating or drinking.

GB5.13 Automated hatchery equipment should have adequate back-up systems, which should include an alarm system or generator in case of power failure.

[Upgrade GB5.12-5.13 to Standards.](#)

## Temperature

GB5.14 Heating should be a minimum of 20°C and a mean temperature of 25°C is provided in the first 4 weeks of life.

[Upgrade to Standard and incorporate the recommendations of Animals Australia for minimum and mean temperatures for the first 4 weeks of life.](#)

## Lighting

GB5.15 Where emus do not have access to daylight, they should be exposed to artificial light for at least 8 hours per day.

Amend and upgrade to Standard to incorporate the recommendations of Animals Australia for the minimum period of natural light, artificial light and continuous darkness.

GB5.16 A blackout training period from one day of age should occur each day to customise the birds in the event of a lighting failure.

[Upgrade to Standard to incorporate the maximum continuous period of darkness every 24hrs as recommended by Animals Australia for sleeping and blackout training.](#)

GB5.17 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.

[Upgrade to Standard and incorporate the recommendation of Animals Australia for the optimal light intensity for rearing chicks for the first few days after hatching.](#)

## Handling

GB5.18 Emus should be picked up by supporting the body and not lifted solely by the legs.

[Upgrade to Standard](#)

GB5.19 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.

#### Upgrade to Standard

GB5.20 Experienced handlers can use the wings and pressure on the rump to help guide emus. Care should be taken with handling by the wings as the limbs are easily damaged.

*Upgrade to Standard- Experienced handlers must only use pressure on the rump to help guide emus. They must not be handled by the wings.*

GB5.21 Introducing non-socialised birds into such groups should be minimised to avoid the potential for aggression and injury.

#### Upgrade to Standard

GB5.22 Toe trimming should be done by a skilled operator at 3 to 5 days of age.

*Amend and upgrade to Standard- Toe trimming must only be done by a veterinarian with pain relief provided before and after the procedure.*  
*Incorporate into the Standard the optimal age recommended by Animals Australia for the procedure.*

### **Hatchery management**

GB5.24 Emu chicks should be brooded within 24 hours of hatching.

*Amend and upgrade to Standard- Emu chicks must be brooded immediately upon hatching.*

GB5.25 Chicks in brooders should be inspected at least once every 12 hours and action taken to correct problems as they occur.

*Amend and upgrade to Standard- Chicks in brooders must be supervised 24hrs a day and action taken to correct problems as they occur.*

GB5.28 When necessary, chicks should be humanely killed by an experienced person by dislocating the cervical spine.

*Amend and upgrade to Standard- Chicks must be humanely killed by person with appropriate qualifications from a nationally recognised training scheme by dislocating the cervical spine.*

### **Humane killing**

GB5.29 The following should be used as recommended methods for humane killing:

- for adult birds — a firearm, or sedation followed by captive bolt or decapitation

- for young birds — stunning by blunt trauma followed by decapitation or bleeding to ensure death.

GB5.30 A shotgun should be used as the preferred firearm for humane killing where close restraint is not possible.

[Replace GB5.29 and GB5.30 with Standards incorporating the recommendations of Animals Australia for humane killing of Emus.](#)

## **Geese**

General standards in Part A also apply to minimise risk to the welfare of geese.

SB6.4 A person in charge must ensure shelters provide 1 m<sup>2</sup>/bird floor space.

SB6.5 A person in charge must ensure a single pair of geese are kept in an area of a minimum of 3 m<sup>2</sup>.

SB6.6 A person must ensure the maximum recommended stocking densities for geese are according to housing type and under good management conditions and as follows;

[Amend SB6.4-6.6 to incorporate the recommendations of Animals Australia for the minimum space requirements for Geese](#)

General guidelines are also recommended in Part A to minimise the risk to the welfare of geese.

## **Feed**

GB6.1 Geese should be provided with food supplementation for growth and reproduction.

[Upgrade to Standard](#)

## **Management Practices**

GB6.2 Geese should always be caught by the neck.

[Upgrade to Standard](#)

GB6.3 Handling aids such as a catching crook should be used to catch geese.

[Upgrade to Standard](#)

GB6.4 The use of dogs and handling aids should be limited to the minimum needed to complete the task.

[Amend GB6.4 and upgrade to Standard - \*The use of dogs is not allowed and handling aids should be limited to the minimum needed to complete the task.\*](#)

GB6.7 Light breeds should be lifted and carried by the base of both wings and neck.

#### Upgrade to Standard

GB6.8 Heavy breeds should only be lifted from two points, base of both wings, neck or supported under the breast. Heavy breeds should only be carried short distances when using this method.

#### Upgrade to Standard

### Ostriches

General standards in Part A also apply to minimise risk to the welfare of ostriches.

SB8.1 A person must ensure where a bird has suffered leg rotation it must be managed. If the bird has difficulty in rising or walking and has significant heat, pain and swelling, the bird must be humanely killed.

*Amend Standard-A person must ensure where a bird has suffered leg rotation it must be managed. If the bird has difficulty in rising or walking and has significant heat, pain and swelling, the bird must be humanely killed by a person with appropriate qualifications from a nationally accredited training scheme.*

General guidelines are also recommended in Part A to minimise the risk to the welfare of ostriches.

### Handling

GB8.1 Ostriches should only be picked up by supporting the body and not lifted solely by the legs.

#### Upgrade to Standard

GB8.2 Chicks should be brooded within 24 hours of hatching.

*Amend and upgrade to Standard- Chicks must be brooded immediately upon hatching.*

GB8.4 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.

#### Upgrade to Standard

### Housing

GB8.5 Where ostriches are held as breeding pairs, they should be kept in a well-fenced pen of at least 25 m x 60 m.

GB8.6 Where breeding trios are kept, the minimum pen size of 30 m x 70 m should be adopted.

GB8.5 and GB8.6 must be amended and upgraded to Standards to incorporate the recommendations of Animals Australia for minimum space requirements for breeding pairs and trios of Ostriches.

GB8.8 Where chicks and juveniles are reared in groups, feed points should be located to enable all birds to eat at the same time.

[Upgrade to Standard](#)

GB8.10 Chicks after brooding should have access to outside runs at an early age, paying due respect to the climatic conditions.

[Upgrade to Standard](#)

GB8.12 Yards should be designed so that birds can be readily evacuated in case of emergency.

[Upgrade to Standard](#)

### **Feed and Water**

GB8.14 Chicks under 8 weeks of age should have food available for at least 10 hours per day.

[Amend and upgrade to Standard-Chick under 8 weeks of age must have ad libitum feed and water provided 24hrs a day.](#)

### **Fencing and yards**

GB8.15 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.

[Upgrade to Standard](#)

GB8.16 All fences in handling yards and transportation facilities should preferably be solid sided and high enough to block the ostriches' vision if possible. Ostriches will be calmer when placed in such an environment.

[Upgrade to Standard](#)

### **Humane killing**

GB8.17 When necessary, chicks should be humanly killed by dislocating the cervical spine by a person experienced in this technique. Alternatively chicks can be decapitated.

Amend and upgrade to Standard- A person with appropriate qualifications from a nationally accredited training scheme must humanely kill chicks by cervical dislocation. Decapitation must not be carried out.

GB8.18 Chicks in the brooder should be inspected several times throughout the day.

*Amend and upgrade to Standard- Chicks in the brooder must be supervised closely within the brooding area 24hrs a day and should be inspected several times throughout the day.*

GB8.19 Where a firearm is used a .22 calibre rifle long rifle or magnum should be used for the humane killing of ostriches.

GB8.20 A shotgun should be used as the preferred firearm for humane killing where close restraint is not possible.

Amend and upgrade GB8.19 -8.20 to Standards to incorporate the recommendations of Animals Australia for humane killing of Ostriches.

## **Turkeys**

General standards in Part A also apply to minimise risk to the welfare of turkeys.

SB13.1 A person performing artificial breeding procedures on turkeys 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.

*Amend Standard-A person must have appropriate qualifications from a nationally accredited training scheme to performing artificial breeding procedures on turkeys.*

SB13.2 A person performing artificial breeding procedures on turkeys must take reasonable actions to minimise pain, distress or injury.

*Amend Standard- A person performing artificial breeding procedures on turkeys must must have appropriate qualifications from a nationally accredited training scheme to minimise pain and distress and prevent injury to turkeys.*

SB13.3 A person must not lift or carry turkeys by the head, neck, wings, feathers or tail feathers unless otherwise supported by the breast. Except when lifted by the tail feathers and neck or by a leg and a wing or by the base of both wings for vaccination.

*Amend Standard- A person must not lift or carry turkeys by the head, neck, wings, feathers or tail feathers unless otherwise supported by the breast under any circumstances.*

## Stocking Density

SB13.5 A person must ensure the maximum recommended stocking densities for turkeys are according to housing type and under good management conditions and as follows:

[Amend Standard to incorporate recommendations from Animals Australia for stocking densities as applicable to the different housing systems.](#)

General guidelines are also recommended in Part A to minimise the risk to the welfare of turkeys.

## Feed and water

GB13.1 Turkeys should be observed to be drinking and action taken if drinking is insufficient or excessive.

[Upgrade to Standard.](#)

GB13.2 The provision of whole grain or coarse cereal fragments as part of grower and finisher feeds should be provided to aid with development of the digestive tract.

[Upgrade to Standard.](#)

GB13.3 Feed and drinking water should not be provided in the outdoor area.

[Amend and upgrade to Standard- \*Water must be provided in the outdoor area to encourage enhanced use of outdoor space.\*](#)

## Housing

GB13.5 A nesting area of at least 1900 cm<sup>2</sup>, per 5 breeding hens per nest should be provided.

[Amend and upgrade to Standard to incorporate the recommendations of Animals Australia for minimum area of nests per 5 breeding hens.](#)

## Temperature

GB13.6 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.

GB13.7 With space-heated brooding systems, an environmental temperature of 33°C at day old should be provided.

[Upgrade GB 13.6-13.7 to Standards.](#)

## Lighting

GB13.8 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.

*Amend GB13.8 and upgrade to Standard and incorporate the recommendations of Animals Australia for optimal lighting intensity for poults up to a week old.*

GB13.9 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.

*Amend and upgrade to Standard- Lighting in sheds must provide a minimum period of 8 hours of continuous dark in every 24-hour period.*

*The Standard must also incorporate the recommendation of Animals Australia for the minimum period of daylight needed for Turkeys.*

GB13.10 After 7 days of age, the light levels in the shed (measured at bird head height) should ensure that; during the light period no area of the shed floor is lit at less than 10 Lux except during catching.

*Amend and upgrade to Standard to incorporate the recommendations of Animals Australia for the minimum lighting intensity for Turkey production.*

## Management Practices

GB13.12 Beak trimming should be performed only by an experienced operator or under the direct supervision of an experienced operator.

*Amend and upgrade to Standard- Beak trimming must only be performed under veterinary advice by a person with appropriate qualifications from a nationally accredited training scheme.*

GB13.13 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.

### *Upgrade to Standard*

GB13.14 Do not over stimulate toms during semen collection, or injury may result. Any toms that have shown cloacal bleeding during collection should be rested for 3-4 days.

*Amend and upgrade to Standard- Toms must only be stimulated by a person with appropriate qualifications from a nationally accredited training provider and must not overstimulate toms. Any Toms with cloacal bleeding must be provided with veterinary care.*

GB13.15 Where beak trimming is considered necessary to prevent feather pecking or cannibalism the following should be used:

- infrared technique and appropriately calibrated equipment

- the trim should be even, rounded and consistent across the flock.

[Upgrade to Standard.](#)

GB13.16 If there are a large number of turkeys that are pecking or cannibalising other birds, action should be taken to adjust management practices and to seek further technical or veterinary advice.

[Upgrade to Standard](#)

GB13.17 Feather condition (as a result of pecking) should be monitored at the end of the growing period to enable management decisions to be made accordingly.

[Upgrade to Standard](#)

## **Handling**

GB13.18 When performing management procedures the turkeys should be handled in the following ways:

- by 2 legs with a minimal time upside down e.g. artificial insemination and weighing

- for breeder stags, opposing wing and leg and protecting the breast for picking up at AI

- for vaccination in the back of the neck, hold by both wings very close to the body of the bird.

[Amend and upgrade to Standard- When performing management procedures the turkeys must be held by both wings very close to the body of the bird.](#)

GB13.19 When catching poults, the catching technique should ensure;

- poults are caught by both legs

- no more than 8 poults should be carried at once.

[Amend and upgrade to Standard-Poults must not be caught manually. A mechanical catcher must be used.](#)

GB13.20 If catching into crates, the approved methods for catching individual birds are:

- birds weighing 5 kg or less should be caught and carried by both legs with no more than 1 bird in each hand

- birds 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.

*Amend and upgrade to Standard- Birds must not be caught manually. A mechanical catcher must be used*

GB13.21 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.

*Amend and upgrade to Standard- If catching into modules, turkeys should be caught by grasping the wings of the turkeys very close to the body.*

GB13.22 Turkeys should be placed onto the floor of the crate or module one at a time.

Upgrade to Standard