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we are there with the animals

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Poultry Public Consultation
Animal Health Australia

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Submission to the public consultation for the draft Australian Animal Welfare Standards and Guidelines for Poultry

Introduction and summary

Animals' Angels welcomes the opportunity to make this submission to the public consultation for the draft Australian Animal Welfare Standards and Guidelines for Poultry ('**the Standards**').

Animals' Angels is an organisation operating internationally, including in Australia, with extensive experience of animal welfare matters relating to farm animals.

In this submission, Animals' Angels has discussed one major issue which it believes should be the subject of focus of the Standards – that is, the battery cage used in housing layer hens.

> ***Animals' Angels takes the firm position that there should be a phase-out of battery cages for laying hens ('conventional cages').***

This position is supported by recent research which has found that 84% of Australians surveyed wish to see battery cages banned.[1]

Furthermore, it is clear from independent review of the scientific literature that the scientific consensus is to the effect that battery cages are seriously detrimental to layer hen welfare, and that problems associated with non-cage housing can be overcome by improved management practices.

[1] McCrindle Research Omnibus Survey, November 2017.

Background

Since the first publication of Ruth Harrison's *Animal Machines* in 1964 there has been increasing public concern about the housing of layer hens in cages which are too small to allow the birds to express normal behaviours. Those normal behaviours include perching, stretching wings, dust-bathing, ground scratching and nesting.

Those concerns have been reflected by the abolition of battery cages in several jurisdictions, including the European Union, Canada, New Zealand and several states in the USA (California, Michigan, Oregon). Many major retailers, such as Coles and Woolworths, have taken steps towards ceasing stocking eggs from hens kept in battery cages, and major buyers of eggs (such as several large restaurant chains, including McDonald's, and food manufacturers, including Nestlé) have stopped using these eggs. The most recent development is the announcement by Kraft Heinz, the world's fifth-largest food and beverage company, that it will stop using eggs from caged hens.[2]

The most evident indicator of public concern about battery cages is the phenomenal increase in the number of consumers buying free range eggs. In 2016, the value of grocery sales of free range eggs was just over 51%, compared to 37% for cage eggs and 9% for barn laid eggs.[3] This increase in demand for free range eggs has occurred despite their commanding a price premium of about 67% compared to cage eggs.[4] This clearly shows that a majority of consumers are willing to pay more for free range eggs, which they associate with better hen welfare.

Housing egg producing chickens

Animals' Angels strongly feels that the continued use of battery cages, based on community expectations and the consensus scientific view, is unacceptable.

Background

The existing animal welfare code for domestic poultry (**the Code**) and the Standards specifically allow laying hens to be kept in battery cages. It is notable that the Code, published 15 years ago, says "*animal welfare considerations are becoming increasingly important for the keeping and farming of animals...practices which may have once been deemed acceptable are now being reassessed in light of new knowledge and changing attitudes*".[5] The Code goes on to say "*...the basic requirement for welfare of poultry is a husbandry system appropriate to their physiological and behavioural needs.*" It cites one such 'need' as "*freedom to move, stand, turn around, stretch, sit and lie down.*" It then immediately points out the contradiction between these statements and what is allowed by the Code, saying "*...there are particular*

[2] www.medianet.com.au/releases/151368.
[3] Australian Eggs Annual Report 2017: https://www.australianeggs.org.au/who-we-are/annual-reports/#item-818
[4] Poultry Standards Consultation Regulatory Impact Statement.
[5] Primary Industries Standing Committee (2002) *Model Code of Practice for the Welfare of Animals; Domestic Poultry 4th Edition*.

behaviours such as perching, the ability to fully stretch and to lay eggs in a nest that are not currently possible in...caged poultry housing systems." Despite these lofty statements in the Code, the Standards, in keeping battery cages, represent a failure to respond to both changed public opinion and animal welfare science.

The Code states that when it is reviewed, it will '*take account of advances...in the understanding of animal physiology and behaviour and in regard to the expectations of the industry and the general community*." This has not happened. The proposed Standards have not taken account of advances in relevant science, and have disregarded the expectations of the general community. The continued use of battery cages contemplated by the Standards is instead entirely consistent with one of those factors - the expectations of the industry.

Animals' Angels considers there are two areas which need to be properly assessed in order to inform a decision on the acceptability of battery cages, namely what the relevant animal welfare science says, and the expectations of the public.

Science – battery cages versus free range housing

Animals' Angels is of the view that the scientific consensus, as reflected in the review by Nicol et al (2015), commissioned by the Victorian Government, is that the restriction of hens' behavioural needs imposed by lifelong housing in battery cages, is unacceptable; the problems associated with free range systems can be overcome by improved management.

The situation with animal welfare science is that there are several interdependent approaches which can be taken to measure the welfare status of an animal. These can include, for example, measures of physiological state (such as using biochemical techniques to assay so-called stress hormone), observations of behaviour including assessment of whether an animal's natural behaviours are frustrated, and observations of an animal's health status. These frameworks are not mutually exclusive; indeed animal welfare scientists agree that multiple approaches must be taken in measuring animal welfare. What is also clear is that, while scientific measures can be objective, animal welfare science alone is unable to weight the relative importance of one welfare measure against another. For example, in the present context, there is no objective way of establishing whether increased mortality in free range layer hen housing is 'worse' for animal welfare than preventing the animal from being able to carry out its normal behaviours by keeping it in a battery cage for the entirety of its life. Striking that balance, once the science is known, is in fact an ethical and political consideration.

There have been repeated recommendations over the years that the review process involved in generating animal welfare standards must involve an independent review of the relevant science. This has not happened. The only substantive mention of science relating to layer hen housing is in a few paragraphs of the Regulatory Impact Statement associated with the Standards review ('**RIS**"). These mentions do not constitute a review, and furthermore can be seen on close analysis to be amateurish and biased. The mentions of science in the RIS involve subtle misstatements which create a bias in favour of approaches which generate data

tending to support maintenance of the *status quo* – that is, the position favoured by industry: retention of the battery cage. This bias is seen as a denigration of the study of chicken behaviour, and an emphasis on measures of hormones such as corticosterone. The advantage to industry of emphasising (falsely) the importance of measuring this stress hormone is that the many results obtained using such measures indicate that the levels are normally very variable and in any case are probably not relevant to assessing the welfare status over prolonged periods of time. Moreover, there are several serious technical problems which give rise to questions concerning the validity of the assays themselves. It is in the industry's interests to shift the emphasis towards corticosterone measures, because, if taken in isolation, and at the same time ignoring the evident problems with these measures, they could be said to indicate there is no difference in stress levels between caged and free range hens.

The evident bias against the use of behavioural science in assessing different housing systems can be seen in the RIS discussion of 'natural living', one of the frameworks said to be useful for assessment of welfare. It says (quoting a 2015 review by Hemsworth et al)[6] '*...the concept of 'natural is often poorly defined and this framework does not provide a rigorous scientific basis for welfare assessments*', thereby dismissing this framework as a valid approach. Consideration of the actual relevant text in Hemsworth et al's review reveals that the RIS quote conveys the opposite impression to that intended by Hemsworth et al, who said: '*...the concept of natural is usually too poorly defined to provide a sound basis for animal welfare assessment,* ***and thus when applied uncritically it may lead to poorer welfare instead of an improvement...There is a need to define natural behaviours that are desirable or undesirable in terms of animal welfare and to clarify the rationale for their inclusion or exclusion...although the concept of natural living does not provide a rigorous basis for welfare assessment, it usefully draws attention to the potential welfare benefits of providing opportunities to engage in such natural behaviours*** (emphasis added).' So, far from dismissing any consideration of natural behaviours, the Hemsworth et al review says that such consideration, when used critically, is in fact useful.

The de-emphasis of the importance of expressing innate behaviours (and the inability to do this in battery cages) continues throughout the RIS. For example, at page 34, it is said that 'the importance of these behaviours...is a matter of contention'. This again misrepresents the scientific consensus (see the analysis in the Nicol Review, below). Later, the RIS adopts a stance to the effect that depriving birds of the ability to perform innate behaviours is not associated with 'physiological evidence to indicate that bird welfare is impaired' - an assertion attributed to an unpublished source, which in itself makes the assertion questionable. Regardless, it is an unhelpful statement to make, as there is no logical connection between the frustration of expression of natural behaviours and abnormal physiology, particularly given the interpretative and technical problems associated with measuring 'physiology'. Both of these issues are properly dealt with in the Nicol Review (see below).

The RIS purports to deal with the science in more detail at page 236. It says (quoting one paper by Elson) that mortality rates are highest in free range systems. This again

[6] Hemsworth PH et al. (2015) Scientific assessment of animal welfare. *New Zealand Veterinary Journal* 63:24-30.

misrepresents the true position. It notes that 'space allowance has been found to have an effect on...physiological measures used to assess welfare', quoting an unpublished industry-sponsored report by Downing (2012), to be found on the website of Australian Eggs. This latter statement is untrue; that report did not purport to measure the effect of space allowance. Moreover, the 'physiological' measure used (corticosterone in egg white) is very unlikely to be an accurate measure of corticosterone, as it relies on the use of anti-corticosterone antibodies, which are inherently non-selective. In any case, the measurement of corticosterone changes is not necessarily a measure of 'stress'. Changes in corticosterone occur as a response to activation, not 'stress' *per se*. Further assertions relating to cages versus free range housing are supported by repeated reference to unpublished work, such as a review by Widowski and colleagues of the welfare status of hens in cages compared to free range systems. This 'review' was said to have found 'little physiological evidence to indicate that hen welfare is impaired' when 'resources are not provided'. Immediately following this is a reference to a PhD thesis by Engel (2016) (which is not even available online), saying that stress hormone levels are not elevated when a nest box is not provided. The validity of such measurements is in fact questioned on technical grounds by the 2012 review of Cronin et al., which is cited in the RIS; perhaps unsurprisingly no reference is made to those criticisms.

As well as the RIS, the Standards review webpage of Animal Health Australia gives access to documents said to be 'supporting documents' concerning layer hen cages and non-cage housing systems. These consist of a repetition of what is in the RIS concerning this issue.

The Victorian government, being dissatisfied with the lack of an adequate and independent review of the relevant science in the Standards review, commissioned a report from one of the world's leading poultry welfare groups, led by Professor Christine Nicol of the University of Bristol's Veterinary Faculty ('**the Nicol Review**').[7] This extensive, up to date and balanced review of the scientific literature includes a section over 40 pages long on layer hens. It is a model of what should have been done as part of the Standards review process and rebuts many of the assertions made in the RIS.

The Nicol Review emphasises the importance of mortality levels in the different housing systems as indicative of welfare problems. It refers to three recent review papers (which in turn review many individual studies) which found that non-cage systems had higher mortality levels than cage systems. It also analysed further, more recent data from over 20 studies which indicated that, while mortality was often higher in free range systems, this was not necessarily always the case. In other words, some free range systems were found to have mortality levels as low as conventional cages. The Nicol Review reported that causes of mortality in free range systems (where this was analysed) included bacterial and viral infection, parasitic infections (such as coccidiosis) and cannibalism. Significant numbers of deaths can also result from smothering; predation can also contribute to mortality. In a very important conclusion, the Nicol Review went on to say that 'despite these average figures, well-managed and designed free-range systems can produce low-mortality outcomes'.

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[7] Nicol et al (2017) Farmed Bird Welfare Science Review, published by Agriculture Victoria. Professor Nicol is the author of the most recent and comprehensive review of science relevant to chicken welfare: *The Behavioural Biology of Chickens* (2015), published by CABI.

The Nicol Review considered the issue of bone fractures (particularly of the keel bone) in layer hens, and noted this was an important issue. There were said to be higher levels of keel damage and fractures in non-cage systems. The predominant cause was collisions, either with other birds, falling on the ground, or with aviary structures.

It is not entirely clear whether severe (injurious) feather pecking is more predominant in cage than non-cage systems, but the Nicol Review does refer to several recent studies which indicate that there is likely to be less serious damage to birds from feather pecking in free range than in cage systems. However, they note the problem is caused by many factors, and control requires a multi-factorial response.

Restriction of movement in conventional cages is associated with reduced bone strength, which results in increased incidence of leg and wing fractures, particularly when facilities are depopulated. Most reported studies found the greatest bone strength in wing and leg bones in free range systems. Another condition which can be seen frequently in cage systems is 'fatty liver'. It probably results from an inability to exercise, and can occur in around 50% of caged birds.

The Nicol Review deals in detail with the behavioural needs of chickens, most of which are frustrated by housing in battery cages. Key behaviours are the need to nest, perch, forage, dust-bathe and have social interactions. The Nicol Review is clear that 'there are negative welfare impacts if these behaviours cannot be performed'. In other words, in direct contradiction of what the RIS says, it does not regard these negative welfare impacts as contentious. The Nicol Review says 'the spatial restriction of the conventional cage prevents or constrains the performance of most comfort movements and there are no resources to meet the birds' roosting and nesting needs. A limited amount of foraging can take place in the feed trough.' The Nicol Review says about free range systems that 'range access has benefits in reducing overall stocking density and greatly increased opportunities for birds to perform foraging, exploratory and dust-bathing behaviours. This reduces the risks of injurious pecking. The benefits of outdoor access have to be weighed against risks of disease and predation'. The Review notes that 'use of the range by individual birds is highly variable'; some studies report as few as half of birds do not use the range, while other studies indicate that use can be higher than 90%. Concerning measures of stress hormones (ie corticosterone), the Nicol Review notes that measures of stress can often reflect arousal, which may explain the many contradictory measures using this measure. Behavioural measurements of fear (such as 'tonic immobility') indicate 'there is no clear relationship between housing system and fearfulness', and it may be that 'the nature and type of human contact have a greater effect than housing type'.

The Nicol Review concludes:

The conventional cage system prevents birds from performing basic movements essential for good health...and denies birds the possibility of expressing their behaviorual needs to roost, nest and forage, or their motivation to dust-bathe... 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 [the] system...Non-cage systems tend to have highly variable outcomes for

flock mortality, health, prevalence of keel fractures and injurious pecking...These same considerations apply to free range systems...'.

This conclusion, in the view of Animals' Angels, represents a balanced and objective view of the current science concerning layer hen housing. It does not indicate a preference for either cage or free range systems, indicating instead that the benefits of any system must be weighed against negative aspects. Animals' Angels thinks that, given the weight of evidence that chickens kept in cages suffer poor welfare for the entirety of their lives, that this, taken with the public opposition to battery cages, is sufficient justification to ban them.

Public expectations

Animals Angels' view is that the Australian public does not want battery cages.

The bias of the RIS in favour of continuing battery cage use is evident even when considering sales data - the strongest indication that the public does not want battery cages. At page 140, data is presented showing that sales volume of free range eggs has gone from virtually none in 2000 to nearly 50% in 2016. Yet the RIS manages to skew this data by saying '...the available evidence indicates that conventional cage eggs...have in fact grown in key segment'.

This represents a perverse misrepresentation of the greatly increased and growing concern of the public about housing layer hens in cages.

The RIS contains no references to surveys of public opinion and therefore is not able to assess this important aspect of the review process.

Nevertheless, it is apparent not only that there is increasing public concern about the welfare of farmed animals, but that a great majority (84%) of the public believe that layer hens should not be housed in battery cages. [8]

Poultry animal welfare standards - the review process

In the opinion of Animals' Angels, the review of the existing Code for welfare of poultry exemplifies the operation of a failed and inappropriate system.

For some time now there have been attempts to normalise and guide the process of development of welfare standards for animals, in particular farmed livestock. Initially, this process was coordinated by the federal department responsible for agriculture, but the current government has abandoned this approach, instead purporting to hand responsibility for standards development to the state governments. In essence this has meant that there is no effective coordination of the process. While an initial review of the process commissioned by the Commonwealth Government (in 2005, by Geoff Neumann and Associates) referred to the need for independent assessment of relevant animal welfare science as a crucial

[8] McCrindle Research Omnibus Survey, November 2017.

component, this recommendation has been ignored and subsequent reviews of welfare standards have instead relied on science selected and promulgated by industry.

The company Animal Health Australia[9] is at the core of the review process for animal welfare standards. What this means is that the process is not set down by law, and those who carry out the process are not directly accountable to the public. The makeup of Animal Health Australia also means that the standards review process is dominated by industry representative bodies and state government departments who are responsible for looking after industry interests. This is unacceptable.

The Animal Health Australia website, under the heading 'model codes of practice for animal welfare' says '*...sustainable improvements in animal welfare based on science, national and international benchmarks and changing community standards, are areas of priority effort*.'[10]

The process as it stands, including that for the poultry welfare standards, purports to be managed by the Animal Health Australia 'Business Plan' for 'Regulation and management of animal welfare in Australia'. This odd document (established under the now-defunct Australian Animal Welfare Strategy) alludes to the desirability of having science based standards of animal welfare which 'reflect...mainstream community expectations'. These assertions are repeated in various parts of the document. Despite this, the document is not clear about who will provide scientific input and review of the scientific literature – indeed it appears this is not regarded as a mandatory requirement, nor is the document clear about how 'community expectations' will be assessed. The intention is that animal welfare standards will be adopted by state and territory governments under local legislation.

The two animal welfare groups which have been peripherally involved in the industry-driven development of the proposed Standards process have made it clear they regard the process as unsatisfactory. There have been claims that the group managing the process, the Department of Primary Industries of New South Wales, colluded with industry in drafting the Standards. The claim that the Standards 'reflect available scientific knowledge...and community expectations' is, in the view of Animals' Angels, a falsehood. There is no evidence presented of what 'community expectations' are, and there is no independent review of relevant science. It appears that 'community expectations' will be assessed after receipt of submissions during the 'public consultation' process. This again is not satisfactory. Community expectations should be assessed in a scientific manner in a properly conducted survey. It is apparent that responses during the public consultation phase will not represent the views of the community; rather it will represent the views of an interested segment of the community. In a clear effort to bias the outcome of submissions, the Animal Health Australia website notes that 'form submissions' will be counted as constituting one single submission. This is ludicrous. If the public consultation is intended (albeit using erroneous methodology)

[9] Animal Health Australia members are the Australian, State and Territory departments responsible for looking after the interests of farmers, 14 industry representative bodies, including Australian Eggs, the Australian Veterinary Association and CSIRO (see https://www.animalhealthaustralia.com.au/who-we-are/information-for-members/members/). Thus there is no animal welfare science representation, and no animal welfare advocacy representation.

[10] https://www.animalhealthaustralia/what-we-do/livestock-welfare/animal-welfare-legislation/

to give an indication of the view of the public, then every submission from every person or organisation should count as 'one vote'.

This failure is reflected in the 2016 Productivity Commission report *Regulation of Australian Agriculture*. The report notes that the objectives of animal welfare regulation are unclear because they are tied to community expectations, which in turn are not well understood or articulated. Moreover, the welfare implications of various farming practices are said not to be well understood by the community. This ignorance and lack of agreement has contributed to conflicts in the development of animal welfare standards. The Report notes that '*...the standard setting process does not adequately value the benefits of animal welfare to the community*.' It goes on to say that there is scope for science and (soundly elicited) community values to play a more prominent role. Evidence in relation to these matters should be used in regulatory impact processes. Importantly, the Report says that the standard development process should be more independent, applying rigorous scientific principles, and should use surveys of community values for animal welfare. The Productivity Commission recommended that these functions would best be carried out by an independent statutory agency – the Australian Commission for Animal Welfare.

The overall conclusion by Animals' Angels is that the review of the Standards has not, and cannot succeed. The only way such a review can be properly executed while taking into account all relevant information, is for it to be done by an independent agency established by statute.

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Australia