6th Boehringer Ingelheim Expert Forum on

FARM ANIMAL WELL-BEING

JUNE 7th 2013, BILBAO (SPAIN)



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Animal welfare standards, farm assurance What does this all mean?

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Prof. Frauke Ohl

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Can the well-being of an animal be measured objectively?

Prof. Frauke Ohl University Utrecht, The Netherlands

While increasing attention has begun to be paid to animal welfare over recent years, there is little consensus on what welfare actually constitutes. The general concept of animal welfare embraces a continuum between negative/bad welfare and positive/good welfare (e.g. Dawkins 2008; Yeates & Main 2008). Currently however, the assessment and management of animal welfare is based on two presuppositions: Firstly, that 'negative' states have to be avoided in order to safeguard welfare and, secondly, that an identical state of welfare would be experienced by each individual exposed to given environmental conditions (e.g. Rutherford 2002; Veissier & Boissy 2007; Knierim & Winkler 2009; Mendl et al 2010). At least partly because of these presuppositions, existing guidelines and legislation are struggling in agreeing on welfare standards, especially when negative states cannot be excluded (e.g. wildlife management, but also extensive farming), and when variance of individual life-challenges is high (e.g. companion animals). From a biological perspective, an animal's welfare status might best be represented by the adaptive value of the animal's interaction with a given environmental setting (see review by Ohl and van der Staay 2012). Such a more dynamic welfare concept may have significant implications for animal welfare management.

The moral dimension

Next to problems arising from the ongoing discussion on how to 'measure' welfare states in animals, it is also clear that animal welfare issues cannot simply be addressed by means of objective biological measures of an animal's welfare status under certain circumstances. In practice, interpretation of welfare status and its translation into the active management of perceived welfare issues are both strongly influenced by context and, especially, by cultural and societal values (Meijboom and Ohl, 2012). In assessing whether or not a given welfare status is morally acceptable animal welfare scientists must be aware that even scientifically based, operational definitions of animal welfare will necessarily be influenced strongly by a given society's moral understanding.

There has been much debate in the more philosophical literature about human responsibilities to animals and about the moral value of animal life. A significant part of this literature recognizes animals as having moral status: that is, to be an entity (a being) towards which we can have moral duties (Warren 1997), acknowledging that animals that fall under our responsibility are also part of our moral circle, and whether these animals flourish is also our



concern. This broad acknowledgement of animals as having moral status, however, appears not to result in one broadly shared view on how we should treat them. This is clearly reflected in current legislative provisions for consideration of animal welfare which are in general largely context-dependent, such that there may be a clear legal distinction between responsibilities defined towards farm animals, lab animals, companion animals, closely managed wildlife, and truly wild animals experiencing little management input (for overview see, for example, Vapnek and Chapman, 2010). It might thus be worthwhile to expore frameworks which can be applied to the broad contexts of animal use, thus, addressing the strong societal need better to understand the demands of sustainable animal welfare management across such contexts.

The biological dimension

From a biological point of view welfare can only be defined in relation to an animal's own perception of its welfare status. Further, the important function of both positive and negative emotional states in responding adequately to environmental challenges has to be taken into account. It has been highlighted that animals have adaptive responses which enable them adequately to respond to environmental/ physiological challenges, and thus to restore a positive welfare state, (see for example Dantzer and Mormede 1983: Broom 1988: Barnett and Helmsworth 1990; Duncan (1993) Fraser et al (1997), Fraser and Duncan (1998) Korte et al, (2007)). Based on this understanding, assessment of welfare should focus not on current status but on whether or not the individual has the freedom and the capacity to adapt to both positive and negative stimuli (Ohl and van der Staay, 2012). Although it has taken some time

for this idea to be more generally adopted, many now do advocate a more dynamic view of welfare, such that a welfare issue arises only when an animal has insufficient opportunity (freedom) to respond appropriately to a potential welfare 'challenge' through adaptation by changes in its own behaviour. On this basis we may then suggest that a positive welfare state would be safeguarded when the animal has the freedom adequately to react to the demands of the prevailing environmental circumstances, resulting in a state that the animal itself experiences as positive.

Assessment of welfare should therefore focus not so much on the challenges which any animal may face at a given moment but on whether or not the animal has the freedom and capacity to react appropriately (i.e. adaptively) to both positive and potentially harmful (negative) stimuli. By the same token, welfare should not be considered as an instantaneous construct to be assessed at some moment in time. An adaptive response may take some finite period of time; crucially therefore our assessment of welfare not simply considers the status of any individual at a given moment in time, but needs to be integrated over the longer time periods required to execute such change.

A further problem implicit in standard methods for objective assessment of welfare status is that such protocols inevitably reflect the observer's perspective and subjective judgement, whereas most modern commentators would now acknowledge that to some significant degree, any animal's status must be that perceived and judged by that animal itself. Such review suggests that instead of considering individual welfare in terms of some 'universal' or 'objective' state as might be assessed by some external observer, to the animal itself, its



welfare status is a function of a subjective selfevaluation or self-perception.

Balancing scientific facts and moral values

Assessment of the actual welfare status of an individual animal therefore offers simply that: an assessment of welfare status. Whether or

not that status constitutes a welfare issue (and may warrant some level of intervention/mitigation) is inevitably more of a value judgement or ethical decision. Therefore, it has been recommended that government policy on animal welfare and animal health should pay attention to the fundamental moral assumptions that underlie many animal-related problems (RDA 2010).

Framework: ethical consideration on animal welfare

Societal moral

Broadly accepted and based on:

- Intuition/feelings (e.g. perception of animal welfare)
- Principles (e.g. intrinsic value, autonomy, justice)
- Facts (being confronted with suffering animals)

and

Scientific knowledge on

(relevant and actual, e.g.)

- Emotion & Cognition
- · Economic interests
- Environment
- Human-animal relation
- Education
- Nature
- Domestication
- Evolution
- ...

Interests are weighed

Fundamental moral questions

E.g. do we have the moral duty to take care of animal welfare?

Do such potential duties result in moral conflicts that are related to animal welfare?

If so, how should we deal with welfarerelated moral conflicts?

Specific considerations, such as:

- Are our moral duties to take care of animal welfare depending on the specific context objective, within which we are confronted with these animals?
- Should suffering and stress of animals be prevented at all times or are they acceptable under certain conditions?
- Is evidence of the animals' ability to perceive its own emotional state a prerequisite for our moral duty to take care of the animals' welfare?

Figure 1 – Ethical Framework (adopted from Ohl & vand er Staay, 2012): The left column of the framework is focused on value assessments, such as the question whether the killing of a group of animals during an outbreak of animal disease is iustified. The right column addresses broader and more fundamental questions related to a specific question, e.g. whether or not to shoot potentially suffering wild animals. The aim of the right column is to explicate these more fundamental questions in a way that is beneficial in addressing the current dilemma, but also in drafting future policy.



To help structure such evaluation a number of frameworks have been developed (see Beekman et al 2006; Mepham et al 2006; RDA 2010) that may help to make explicit, structure and analyse moral issues in policy. Such assessments should be public, transparent and based on the most recent scientific knowledge as well as broadly shared public moral views. Ideally, these public views were to be derived from a full ethical assessment, which is to say, the result of a reflection process that incorporates intuitive judgements, knowledge and moral principles. The application of such assessment models is not restricted to analysing practical questions of the morally 'right' action, but more aims at allowing for better structured and more explicit discussions on fundamental questions related to the moral good.

The assessment model introduced here (Figure 1) is not a decision making tool that functions as a one size fits all approach for practical ethical dilemmas. Thus, it should be clear that such an ethical framework is drafted rather in order to identify the relevant ethical questions and identify potential moral dilemmas than to yield straight forward management or political solutions (see also Ohl & van der Staay, 2012).

Conclusion

Welfare as a biological function, embracing the continuum between positive and negative welfare, should take into account the dynamics of the individuals' adaptive capacity. Positive welfare implies that the animal has the freedom and capacity to react appropriately (i.e. adaptively) to both positive and potentially harmful (negative) stimuli. Consequently, within the framework of the assessment of the biological aspects of animal welfare, it is of utmost relevance to evaluate whether an animal is able to fulfill the demands of the respective environmental circumstances, given the limits of the animals' capacity to adapt. The application of this dynamic welfare concept - based on the adaptive capacity of an individual - has significant implications for practical welfare assessments: only the change in response towards a given stimulus over time will tell us whether an individual was able to adapt to that stimulus.

Finally, animal welfare issues cannot be addressed without due consideration of the (public) moral values alongside the more objective analysis of the animals' biological functioning, contributed by animal scientists. What can be measured objectively indeed is animal welfare as reflected by the animal's biological functioning. The judgment whether any compromise of such functioning is deemed to be acceptable or unacceptable however is based on (moral) considerations that can differ significantly between human observers. Professionals who are expected to advise on animal welfare issues must take this complex interplay into account.



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Dr. Emma Roe

Dr Emma Roe BSc PhD is Lecturer in Human Geography at the University of Southampton. She began her career studying embodied consumption practices and the processes of 'things becoming food'. She moved into the study of farm animal welfare through working on the EU WelfareQuality® research project between 2004 - 2009. She has established herself as one of the leading academics in three areas of animal welfare research. Firstly, the study of food retail and food service supply-networks for higher welfare food products. Secondly, the ethics and politics of handling sentient materialities. And thirdly, human-animal interactions in the food industry and the use of animals in research. Her research has received funding from the ESRC, British Academy, Wellcome Trust, EU and AHRC. She has published widely across the social sciences and interdisciplinary animal welfare journals. She is currently preparing a book manuscript with Prof Henry Buller (University of Exeter) on 'Food and Animal Welfare' to be published in the autumn of 2014 by Bloomsbury Publishing. She continues to work closely with animal welfare expertise in the animal science and food industry community.



Is farm animal welfare a commodity?

Dr. Emma Roe University of Southampton, UK

There have already been notable changes to how animal welfare has been understood over the years. This paper will reflect on the changes that have occurred and raise some questions about the direction that farm animal welfare could be heading in the future from a cultural economic perspective (Buller and Roe 2013). The paper draws on studies of cattle stockperson practices, commercial practices in the free-range egg supply network, and on-farm farm assurance audits.

Animal welfare aspirations were once associated strongly with good biological functioning (Broom 1991) of an animal, today it is focused increasingly towards the well-being of the sentient animal who should have a life worth living (Wathes 2010). This cultural awakening (in some global communities) to the growing awareness of both the need and the benefit of providing good welfare for animals that humans eat is supporting the drive for farm animal welfare science that can help improve our understanding of how to meet the different needs of sentient farm animals. These changes over the last decade have shaped and been shaped by the increasing establishment of farm animal welfare concerns into the food retail and food service agro-supply networks. These include the tightening of production system legislation; a growing awareness and sensitivity to farm animal suffering by

engaged consumers who eat animal products; a developing culture that encourages the expression of animal care by stockpersons who have daily interactions with animals; along with, the more explicit marketing of food products as welfare friendly by retailers and food manufacturers. This will be discussed in relation to a study of cattle stockpersons treatment of lameness (Horseman et al draft).

There is no doubt that the presence of farm animal welfare as an explicit or implicit food product attribute has been a highly significant feature for in



effect it has proven that animal welfare improvements are something that people are willing to invest in. This demonstrates the success of animal welfare science, the efforts of animal welfare NGOs and the activities of food companies themselves in raising the visual profile of higher welfare products in stores. What is argued here is that how the culture of concern plays out in different farm animal species has supported and hindered in different ways the potential to sell various food products with animal welfare as a product attribute. Recognising this should make policy-makers mindful of the importance



of being aware of what is driving and shaping popular understanding, engagement, interest and ideas about farm animal lives. The new knowledges and meanings around how farm animals live, could live and how to make improvements to their lives whether stockperson, consumer or scientist are working off and with each other to support the development of farm animal welfare as a cultural phenomenon with significant material outcomes in the quality of farm animal lives and the quality of food for human consumers. The market for free-range eggs is discussed as an example of this (Buller and Roe 2012; 2013).



However the question 'is animal welfare a commodity?' should alert us to consider more critically what 'animal welfare' we are working towards, yes the culture of concern is present but where it is bringing meaningful change is not felt everywhere but is more specifically linked to certain products, species, consumer priorities. Can the standard of animal welfare that market activity supports and encourages match the aspirations that society holds for the lives of farm animals? How do consumers know what is a good life for chickens, cows, pigs? What does the commodification of farm animal welfare mean for the scientific goals and how realistic it is to raise animal welfare standards? Outcome based measures are being developed by scientists to try and improve the methods of

assessing farm animal welfare, but in turn how feasible is it for a complex set of measures to be introduced into a competitive market place with highly varied rationalities of marketing, farming and supply network auditing across Europe and the wider world? The most common welfare criteria to be adopted by the market, featuring in retail Corporate Social Responsibility statements, identifiable on food packaging within some product lines, and were discussed frequently in a cross-European study of retailer practices relating to farm animal welfare were ideas and practices related to animal 'naturality' and animal confinement and stocking density. These ideas reflect the dominant understandings and feelings that surround farm animal welfare amongst engaged citizens, but can be at odds with what is achievable in the market place, at odds with what some of the animal science is suggesting, and also avoid non market-friendly aspects of the production process (notably slaughter). This will be discussed in relation to findings of a study from an on-farm quality assurance audit (Roe, Buller and Bull 2011).

In summary animal welfare cannot be defined by rational economics, because economics doesn't happen outside of a culture but firmly within it and work with farm animal bodies and food products many varied forms and 'lives'. This makes the roll-out of improvements a non-linear process that needs to be attentive to cultural and material specificities. But equally demonstrates the relevance of cultural actors - NGOs, education, media, celebrities - in supporting and encouraging citizen-engagement with farm animals. Thus in keeping with this line of thinking the market should not necessarily be seen as a universal panacea for improving welfare standards. Rather instead it is important to be sensitive and responsive towards how culture drives thinking, feeling, and practices from which



new experiences with animals can establish and shape the direction that animal welfare takes. With this in mind, future farm animal welfare policy making should be wide-eyed to how the meanings and definitions of animal welfare are being communicated and modified by the technologies and practices that surround food animal commodities and their different production and supply networks. To focus only on the market will not achieve a holistic approach to farm animal welfare improvements but instead be potted with shortcomings and integral weaknesses.

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Sophie de Graaf

Sophie de Graaf obtained a Bachelor's degree in Animal Management in 2009. She focused on animal welfare quality management, policy and communication, with a major thesis on classifying animal welfare quality labels. During her double degree Master in Animal Science at Wageningen University and Research Centre (WUR) and the Swedish Agricultural University (SLU) she studied production animal welfare with a thesis on subjective well-being of laying hens and social breeding value, abnormal behaviour, aggression and provision of straw in pigs.

In 2012 Sophie started as a PhD candidate at the Institute for Agricultural and Fisheries Research and Ghent University. The research aims to assess options for the marketing of animal welfare as a quality characteristic of milk.

Sophie's research interests include the identification of animal welfare problems of production animals, animal welfare assessments, solutions for welfare problems that could be applied in practise, and consumer behaviour & marketing strategies to stimulate consumer demand of products that are produced in an animal friendly manner.

Marketing animal welfare as a quality characteristic of milk

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To stimulate the dairy industry to address welfare problems in dairy cattle, it is not only important that the evaluation of welfare is valid, but also that the welfare monitoring process meets various needs such as communication to the consumer, or acceptability by the farmer and the industry as a whole. Therefore, we started a study in 2012 (until 2016), named MELKWEL, with the aim to evaluate opportunities for using animal welfare as a selling proposition in milk marketing strategies. The study involves consumers, farmers and retailers in the research process.

European citizens express a need for improved farm animal welfare (Eurobarometer, 2005; 2007). Citizens typically view welfare as an inherent part of process and product quality and positive information about welfare may lead to a higher self-reported willingness to pay (Napolitano et al., 2008, 2010). In this project we investigate how initiatives, popping up from the dairy industry itself, can meet the societal demand for improved welfare. The initiatives aim at creating added value by responding to consumer demands, and include science-based assessments of cattle welfare on Belgian dairy cattle farms. For this end, the Welfare Quality[®] protocol for assessing cattle welfare at farm level is used.

The Welfare Quality® project (2004-2009, www. welfareguality.net) was funded by the European Union and performed by a large consortium of mostly European researchers. One of the main deliverables of this project was the development of European standards for assessing the welfare of the major farm animal types. These protocols mainly use animal-based measures because they are more closely linked to the actual welfare status of animals than resource-based measures (Blokhuis et al., 2010). Moreover, the protocols are designed to be widely applicable independent of the housing system or the country. During a farm visit, information is collected on twelve animal welfare criteria grouped into four principles: good feeding, good housing, good health and appropriate behaviour. For each of these criteria, appropriate measures are selected based on repeatability, feasibility and validity. For example the principle 'good health' is measured by (among others) the criterion 'absence of

MEASURES

CRITERIA

PRINCIPLES



injuries' which is measured on the animal by scoring wounds and lameness. A hierarchical integration procedure first aggregates the scores of the various measures into a 0-100 score for each criterion. These criterion scores are then aggregated into a 0-100 score for each of the four principles on the basis of which the overall welfare status on the farm is categorised as 'not classified', 'acceptable', 'enhanced' or 'excellent' (Botreau et al., 2007).

Up to now, in the MELKWEL project, assessments of dairy cattle welfare have been performed on 43 Belgian farms during the winter of 2012-2013. No assessments were conducted during the first weeks of the indoor period as it has recently been shown that the lingering (and predominantly positive influence) of the pasture period invalidates comparisons with assessments carried out later during the indoor period (Tuyttens et al., 2012). The data collected during this first indoor period will be used to examine the welfare status of Flemish dairy cattle and the most prevalent welfare problems, and to identify factors that positively or negatively influence dairy cattle welfare. This will provide the information for a second series of farm visits to be performed during the winter of 2013-2014. During the second series, farms will be selected on aspects that indicated a welfare problem in the first series. The applicability of (parts of) the Welfare Quality[®] protocol for monitoring cattle welfare in a valid, repeatable and cost-efficient manner will be investigated.

Using participatory processes by means of focus group discussions, various stakeholders, in the first place the farmer, will be involved to evaluate the expectations and reservations with respect to the method and application of welfare monitoring. From this co-creative process feasibility of improved farming, monitoring and communication will be examined. This participatory process allows us to gain insight into the perceptions of stakeholders towards all abovementioned aspects. Finally, we examine which marketing strategy best motivates consumers to buy welfare-friendly milk, and whether and how the dairy farmer wishes to apply improvement strategies to achieve a welfare-friendly but yet profitable dairy production system.





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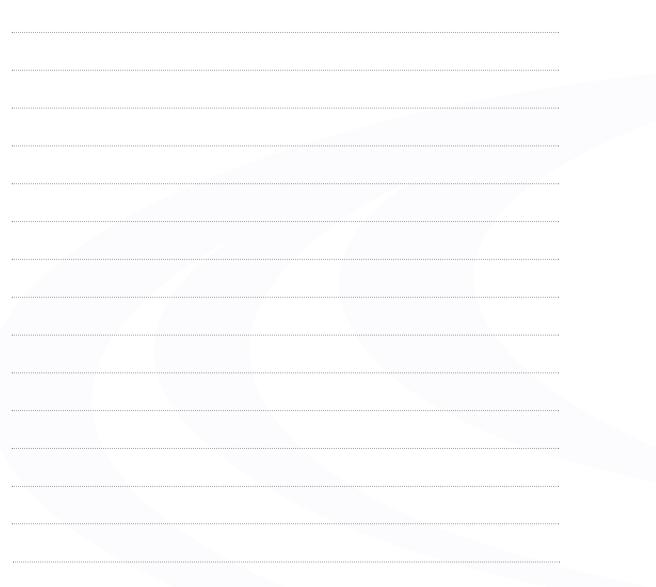
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Notes







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Should veterinary surgeons promote higher welfare food to consumers?

Sean Wensley

Senior Veterinary Surgeon at People's Dispensary for sick Animals (PDSA)

What is animal welfare?

There is broad agreement amongst academics, veterinary surgeons and others that the welfare of a sentient animal relates to how the animal is feeling and how well it is able to cope with physical and emotional challenges (Webster 2012). In 2007, the British Veterinary Association's Ethics and Welfare Group adopted the following working definition of animal welfare (BVA 2007):

"Animal welfare relates to both the physical health and mental wellbeing of the animal."



A useful framework for assessing animal welfare, which includes physical and mental determinants, is provided by the "Five Freedoms and Provisions" (FAWC 1993):

- I. Freedom from Hunger and Thirst by ready access to fresh water and a diet to maintain full health and vigour.
- II. Freedom from Discomfort by providing an appropriate environment including shelter and a comfortable resting area.
- III. Freedom from Pain, Injury or Disease by prevention or rapid diagnosis and treatment.
- IV. Freedom to Express Normal Behaviour by providing sufficient space, proper facilities and company of the animal's own kind.
- V. Freedom from Fear and Distress by ensuring conditions and treatment which avoid mental suffering.



Current welfare problems for farmed animals in the European Union

Recent reports from the European Food Safety Authority's Scientific Panel on Animal Health and Welfare and the UK's Farm Animal Welfare Committee (formerly Council) document various sources of animal suffering arising from housing systems, husbandry procedures, clinical disease or a combination of these. For example:

Broiler chickens

Broiler chickens have been artificially selected for rapid growth rate. They experience high levels of lameness, overcrowding, inability to express normal behaviour and painful contact dermatitis (EFSA 2010a).

Broiler breeders

The parent birds of broiler chickens are fooddeprived and kept chronically hungry, in order that they remain fertile and able to mate (EFSA 2010b).

Dairy cows

Many dairy cows are affected by health problems such as lameness and mastitis which are attributed to long-term genetic selection for increasing milk yields (EFSA 2009, FAWC 2009a).

Finishing pigs

Finishing pigs are often reared in barren indoor environments at high stocking densities without bedding. Such systems do not provide for their behavioural needs and give rise to social stress. Piglets' tails are routinely docked without anaesthesia or analgesia to prevent tail-biting (FAWC 2011a).

Sheep

Lameness is a significant problem in sheep, with 3 million UK sheep estimated to be lame at any one moment (FAWC 2011b).

Funding animal welfare improvements

The UK Farm Animal Welfare Committee has stated that it "deplores the low profitability of livestock farming" (FAWC 2011c). Food and drink in the home now accounts for less than 10 per cent of household expenditure compared to 21 per cent in 1965 (FAWC 2009b). Several recent reports (e.g. FAWC 2006, 2009b) have emphasised the role of informed and concerned consumers in driving animal welfare improvements, through creating markets for higher welfare products. The purchasing decisions of individual consumers may also signal a desire for higher animal welfare standards to retailers and legislators (Buller and Roe 2012).

Consumer concern and barriers

In a 2005 Eurobarometer survey, 82 per cent of respondents agreed that humanity has a duty to protect the rights of animals (Eurobarometer 2005). In a more recent survey of 600 people in Great Britain, 96 per cent agreed that we have a moral obligation to safeguard the welfare of animals (Bennett and others 2012). This concern may not, however, translate in to purchasing behaviour and market failure may occur. In a 2007 Eurobarometer survey, 85 per cent of respondents said that they knew little about farming practices and 54 per cent said that it was not easy to find information on welfare provenance when shopping (Eurobarometer 2007). Bennett and others (2012) found that



only 38 per cent of British respondents felt well informed about the way farmed animals are treated. Providing consumers and the public with appropriate information on animal welfare is a strategic action within the European Union Strategy for the Protection and Welfare of Animals 2012-2015.

Consumer education and the veterinary profession's role

The UK Farm Animal Welfare Committee argues that children should be educated about animal welfare at school and that adequate point-of-sale information should allow concerned consumers to make informed choices (FAWC 2011d). Campaigns by non-governmental organisations or media activity by celebrities can result in significant changes in purchasing behaviour towards higher welfare products, but the persistence of any effect may be limited (FAWC 2011c). Veterinary surgeons are uniquely placed to directly communicate with animal owners and their opinions are highly respected (Wensley 2008). In 2011, the Federation of Veterinarians of Europe and the American Veterinary Medical Association published a Joint Statement on the Roles of Veterinarians in Ensuring Good Animal Welfare. This concludes that "Veterinarians are, and must continually strive to be, the leading advocates for the good welfare of animals."

The veterinary profession could adopt a leadership role in educating consumers on the welfare of farmed animals and promoting higher welfare assurance schemes. The British Veterinary Association and its charity, the Animal Welfare Foundation, have formulated food procurement policies which seek to source food from higher welfare assurance schemes. Individual veterinary surgeons and veterinary practices could adopt

similar policies, and promote them as part of animal welfare-focused veterinary practice (Yeates 2013). For example, veterinary practitioners could recommend higher welfare products when advising a bland diet (e.g. chicken) or high value training treats (e.g. sausage). A veterinary practice could feed higher welfare meat to hospitalised patients and make leaflets about higher welfare assurance schemes available to clients in the waiting room (Yeates and Wensley 2013). Roger (2013) and Mullan (2013) discussed whether it would be morally and professionally acceptable to promote higher welfare food products to clients visiting small animal practices. They argued that as long as no negative pressure was put on alternative views, then veterinary surgeons had a duty to publicise their stance. They concluded that "providing we are all well informed, the network of veterinary surgeons across the UK could be a powerful force for improving areas of animal welfare, extending well beyond the immediate sphere of influence we have over our patients" (Mullan 2013).

Summary

A number of housing and husbandry practices permitted under EU legislation causes farmed animals to experience poor wellbeing. Farmers are able to adopt farming practices that go beyond minimum legal requirements if there is a sustainable market for their products. Most EU citizens recognise an ethical duty of care towards farmed animals. Many are comfortable consuming animal-derived products, but desire that the animals have had a good quality of life and a humane death. Increased education is needed to inform consumers about farming practices and how their food purchases can contribute to improved standards. Veterinary practices and associations may be able to do more to educate consumers and promote higher welfare assurance schemes.



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Prof. John McInerney

After a first degree in Agriculture I studied in the USA, gaining a PhD in Economics. My career has been essentially as an academic - at the Universities of Manchester, Reading and Exeter - though also working on numerous occasions for the World Bank and various public bodies. My work has covered most of the conventional areas of modern agricultural economics. I was the first economist (some 30 years ago) to develop the analysis of both livestock disease and animal welfare as specifically economic issues, and have published widely in this area.



In what sense does animal welfare have an economic value?

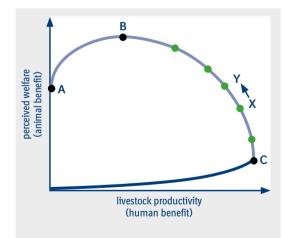
Prof. John McInerney University of Exeter, UK

This question is important when confronting decisions about the conditions under which we keep animals because improving their welfare will almost inevitably have an economic cost.

Contemporary concerns over farm animal welfare are closely associated with the image of 'intensity' and have come about largely as a result of the relentless drive to gain the benefits of increased productivity in all forms of farming. Aided by the continual flow of scientific knowledge, technology and new production methods the progressive exploitation of the animals' biological capacity to produce economic output (as captured by Ruth Harrison's 'Animal Machines' and labels like 'factory farming') raises increasing unease about the extent to which the animals we depend on are being stressed. Alleviating these concerns involves to a large extent easing back on and modifying developments in livestock husbandry, and so sacrificing existing or further potential gains in productivity.

The welfare/productivity conflict

This can be illustrated by the following conceptual diagram, which reflects the path man has followed in developing livestock husbandry. First, in domesticating animals from their 'natural' state (point A) we increased their productivity and also, we believe¹, improved their welfare by providing food and shelter, managing their health, protecting them from predators and generally pursuing the activities considered to be 'good husbandry'. However, that complementarity between the animals' wellbeing and our own advantage changes into a competitive one as we pushed for further productivity beyond point B.



Livestock farming is not conducted to maximise the welfare of the animals, and the possibilities provided by technical developments and commercial incentives inevitably encourage continual pursuit of their productive capability. In this context the animals' welfare is a 'free good' and as in all such cases it is inevitably over-exploited, ¹ We cannot, of course, be sure as we have only our own perceptions of what we think is good for them!

Conflicts between animal welfare and productivity



leading to progressive incremental gains in productivity but at increasing cost to the animal. This could theoretically continue until a point is reached (C) where the animals are so overstressed that the production system collapses – something many feel is uncomfortably close in cases such as broiler production. Differing livestock farming systems are perceived as being arrayed along the frontier between B and C, from extensive, free range, organic and so-called 'welfare friendly' methods down to highly intensive beef feedlots, industrial dairy and caged laying hen systems at the other extreme. All represent a different balance – but the same overall conflict – between animal and human interests.

The economic consequences of welfare change

For some years now there has been increasing recognition that our livestock production methods may have gone 'too far' (as reflected in sow stalls, veal crates, hen cages, excessive lameness and short production lives in dairy cows, high use of pharmaceuticals, etc). All were introduced as economically beneficial developments but have had consequences for animal welfare that now cause considerable unease. If we represent this by point X in the diagram the call is to implement appropriate husbandry changes equivalent to moving 'back' to point Y, which would bring distinct welfare benefits to the animal while necessarily incurring a cost in terms of productivity loss. This cost can generally be calculated from farm accounting data on the extra resources used and/or the output reductions consequent on adopting the 'kinder' production methods. There is nothing intrinsically wrong, of course, in taking actions that involve a cost (our whole lives are essentially programmes of consciously incurring cost of one sort or another - in terms of time,

effort, energy, money, resources, etc - in gaining the things we want; that is what economic activity is). The key question is not 'what does welfare improvement cost?' but 'what is it worth?' – and does this sufficiently exceed the cost to make it a good thing to do?

There are obvious difficulties in measuring welfare gains in a quantitative form that allows this question to be answered empirically. But that is no different from countless situations in our everyday lives, either at the personal or the societal level, where the values of things have to be assessed judgementally and set against a distinct cost (e.g. the merits of environmental improvement/ national defence policy/scientific research/moving house/going on vacation/buying a plasma TV/.... etc). The important point is, to be rational, the cost incurred in such choices should be subject to some considered assessment of the value gained.

The value of welfare improvement

If the proposed husbandry change in our conceptual example is of benefit only to the animals then there is no reason to make the changes; it is not a rational economic choice to incur cost for no benefit. But we do consciously pursue welfare improvements, both in relation to companion and to productive animals, at some cost to ourselves, so there must be some clear compensating value accruing to humans from enhancing welfare for animals. It is instructive to enquire what this value is and where it comes from. It is not the case that animal welfare has some 'intrinsic' value, as some suggest. 'Value' is not a characteristic like chemical valency or molecular weight but an attribute that is conferred solely by humans; it does not exist independently of people, what they know and what they like or



dislike. It is a reflection of human preferences, so the value attached to something will vary across individuals, societies and cultures, is dependent on income, information, experience, awareness and a host of social and sociological factors that determine our perceptions and our preferences. That this is so is revealed by the differential emphasis (value) we seem to place on the welfare of different types of farm animals – broiler chicken as opposed to free range pigs; pet dogs and cats versus hamsters; songbirds versus fish; and to animals we class as 'vermin'. All are sentient beings but we seem never to treat their well-being with equal concern.

Among its other implications, this leads to the perhaps startling conclusion that 'animal welfare' is not something amenable to objective scientific study and assessment – because it is not actually an attribute of animals at all. It is our perception of what animals need and want that is the focus of any concern we may or may not show, and it is whether we feel good or feel unease about the conditions of their existence that determines the actions we take. In that sense animal welfare is, from a functional point of view, no more than a component of human welfare!

So quite simply an animal welfare improvement is worthwhile if it makes us feel sufficiently good, or sufficiently relieves our feelings of guilt/discomfort about their lives, to accept the requisite cost of taking action. And it is our perceptions of the animals' welfare, not any measured reality of it, that motivate the actions we take. Those perceptions may derive from scientific enquiry, but may equally be based in pure sentiment, ethical concerns, Walt Disney images, propaganda, misinformation or anthropomorphism.

Value, cost and price

While 'cost' and 'value' are often thought of in monetary terms this is relevant only to items that are traded. A large proportion of what gives us value in life does not feature in market processes and so does not carry a recognisable 'price'. Nor do most of the attributes of animal welfare, except insofar as some of the simpler and more definable aspects - 'free range', 'grass fed', or the more nebulous 'welfare friendly' labels - get attached as distinguishing characteristics of some food products. So explicit monetary values never get associated with the bulk of the complex individual conditions that determine the wellbeing of our farm animals. Like many of the qualitative aspects of our economic processes they are 'externalities' (unpriced values) that are external to, and unaccounted by, market exchange processes. In other cases money prices are not meaningful reflections of real value anyway because they are distorted by state intervention, market power or specific circumstance (does the Picasso that fetched a price of \$106m in 2010 really offer the same value to humanity as 325.000 tonnes of wheat?).

The conclusion to draw from this discussion is that to ask "is higher animal welfare worth it?" or "will it pay to provide it?" is an empty question – about as meaningful as asking whether it is worth buying a Mercedes or keeping pigs. To some consumers and producers it will be, while to others it will not, and it is a matter that can only be resolved by the market. Individual consumers for whom welfare attributes of food products are important, and individual livestock producers who believe they have a commercial advantage, can thereby resolve the issue according to the nature and extent of their preferences and their opportunities. In a sense, an answer to the ques-

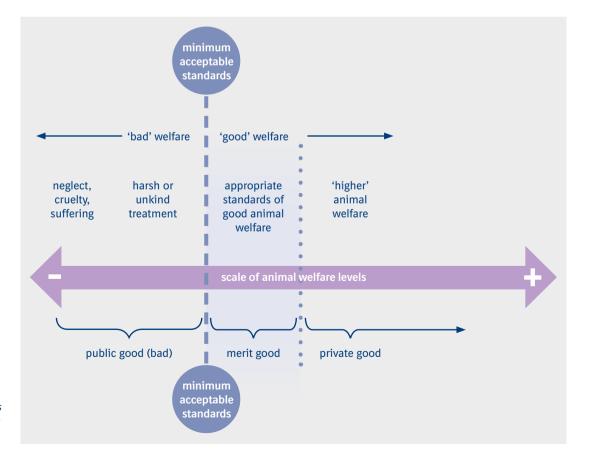


tion is revealed at any point in time but cannot be determined in advance.

Regulation and the value of welfare

We have said that the value people place on different animal welfare levels is a matter of information, awareness, individual circumstance and personal preference; for some, concern for animals figures highly in their value system while for others it has no importance. We have also argued that there is inevitably some cost associated with raising welfare levels². The danger of leaving animal welfare conditions to be resolved solely in the market, therefore, is that some (many?) individuals, whether as livestock farmers or food consumers, may be content with livestock products produced under abysmally low welfare standards. This then raises the question as to whether people should be forced to pay for certain welfare standards regardless of their personal preferences or how much they value the wellbeing of animals. In most developed societies there are legally enforceable minimum standards governing the treatment of animals, but the policy question is how far should they go and how much should be left to free choice. It is helpful to think of welfare lying on a continuous ordinal scale from 'bad' to 'very good'. At the lower end of this scale the treatment of animals would be generally regarded as being 'cruel' or 'inhumane', not acceptable in the context of a civilised society, and prohibited by a legally enforced minimum standard. There is a collective or societal value attached to the welfare of animals up to this point that everyone is compelled

²There may be specific instances where this is not be the case, but they are not widespread



Animal welfare levels and the definition of economic goods



to provide or pay for, regardless of their own personal preferences and valuations. Some element of animal welfare is therefore a 'public good', provided for everyone and not subject to any individual choice, and it is a matter of constant appraisal and policy discussion as to where this minimum standard should be defined. Any further increment in animal welfare beyond this minimum socially acceptable welfare standard, however, is logically a private good - open to the free choice of individuals, and those for whom it has no value should not be forced to accept (and pay for) them.

This has implications for welfare regulation and policy. 'High' welfare conditions for farm animals are widely advocated nowadays by many groups and public bodies, but at the upper levels only a small minority would value them sufficiently highly to be prepared to incur the necessary costs; livestock products produced to these standards are very definitely personal private goods that should not be urged or imposed on everyone. But between the minimum socially acceptable standards and the luxury welfare levels that some would like to see are what economists define as merit goods - standards that are desirable, though not compulsory, for people to embrace and should be encouraged for the general benefit of society. The general tenor of animal welfare advocacy nowadays is to treat animal welfare as a merit good and persuade people to value it more highly.

Welfare standards and food prices

The fact that higher welfare implies higher livestock production costs is often used to argue that consumers 'couldn't afford them', but this is greatly over-stated. It is true that, from an economic point of view, the crucial implication of raising farm animal welfare is its impact on retail food prices (and in this sense the effect on farm level production costs is incidental) but a little thought reveals that the outcomes are likely to be minor. First, most husbandry changes required for higher welfare methods affect only a subset of the overall resource structure of livestock production (e.g, stocking density, housing provision, feeding regimes, health management, transport ation standards, etc) leaving all the other costs unchanged; so while some components of production costs may as much as double (unlikely) the resulting impact emerges as perhaps just a 10% increase in overall production cost. Then, since the farm gate component represents on average only about one guarter of the price of the final food product - consider all the added elements of marketing, slaughter, processing, manufacturing, distribution, portioning, packaging and final retail sale in the extended food supply chain - this 10% cost increase at farm level materialises as, say, a 21/2 % increase in the retail cost of a particular 'high welfare' food product. Individual items on the supermarket shelf typically vary by this much on a regular basis depending on season, local conditions, wider market prices, etc and so should represent no serious basis for concern.³ And if we consider the proportion that any one food product occupies in the typical household budget, one can only conclude that most of the animal welfare improvements advocated by moderate opinion would cost consumers merely pennies per week extra in contributing a substantial additional economic value to the collective preferences of society.

It is important to place economic changes into perspective, rather than focussing simply on the fact that monetary costs may increase. ³ More so for the very poorest consumers, it is true, but sadly the food market does not function with the poorest in mind.





Dr. Francesco Testa

Francesco Testa graduated in Veterinary Medicine in Milan in 1992, and achieved his PhD in 2012 at the same University. He works as bovine practitioner for the technical service for farmers in Lombardy with special interest in milk quality and udder health, management of reproduction and welfare of dairy cows. He performs herd health and production management evaluations using the Italian version of Dairy Comp 305.

On-farm welfare audits... An opportunity for the veterinary profession?

Dr. Francesco Testa Bergamo, Italy

Lombardy Region has financed for several years, thanks to EU funds, the Technical Service to farms (SATA); it's a service deeply rooted in the area thanks to Dairy Herds Improvement Associations (APA), coordinated at regional level by the Lombardy Regional Association of Farmers (ARAL). Lombardy Region consists of 12 Provinces with 9 APA and is characterized by an intensive husbandry which allows the production of approximately 40% of the Italian milk. Characteristic of Lombardy is the presence of farms located in the mountains, where cows are mostly tied up, and farms on the plains, with cubicle housing. Pasture is practically non existent for cows reared on the plains, while grazing in pasture is quite prevalent in summer months for cows reared in the mountains.

In 2001 SATA consultants met Brian Perkins, animal welfare specialist of Monsanto's technical service, on welfare issues.



The three main points that emerged were the following:

- Animal welfare, i.e. the absence of all the possible limitations in the structures and in herd management which increases the stress of the animal, has a great impact on animal's performance.
- Milk production is an important indicator of well-being of the cow: without stressors the animal will live better and produce more milk.
- 3. The relation between herd buildings and animal welfare is also a technical problem, because it affects technical results.

We developed a questionnaire to evaluate 160 dairy farms in the plain of Lombardy following the practical indications that emerged from the discussion with Perkins. We focused our evaluation on the age of the buildings; overcrowding; cubicles; width of alleys; number, dimensions and disposition of troughs; presence of deadends hallways; kind of bedding; ventilation and tools to contrast heat stress; ventilation and time standing in collecting milking area.

Later we created a welfare score that would allow to compare easily different dairy farms.



We focused our score on facilities and management, trying to make it as simple as possible, and based on Lombardy reality, but still able to highlight weak points in welfare management.

SATA Welfare Index

We started from the score described by Britt in 1993, and we ended up with a score of maximum 100 points, divided in 8 main areas:

TOTAL	100
Floor	5
Buildings	10
Overcrowding	10
Milking	10
Alleys	10
Water	10
Ventilation	15
Cubicles	30

SATA Welfare Index is not exhaustive with respect to animal welfare! This is a score that we built to help dairy farmers in improving their farms so that cows could live in a more comfortable environment. The technical use of this index was of great help in showing to farmers weak points of their farms. With this tool we could improve welfare management and achieve a greater milk production.

The assessment of welfare requires about an hour of time and should be made at least once for every dairy farm, around two hours after milking. Obviously the daily execution of herd health management programs allows to verify welfare conditions of cows and to suggest the presence of major problems. We try to highlight the aspects which can be modified more easily and we try to find solutions with the farmer, in order to reach more quickly the desired results. Not always what we think is the most urgent problem is perceived in the same way by the farmer, who maybe prefers to deal with issues that in our opinion are less prominent. Effective changes made by other farmers help our clients to be convinced of the utility of change, thus organizing farmer meetings or farm visits is a tool to encourage farmers reluctant to face welfare issues.

We think that our score can be a starting point for a new, more detailed welfare index which could be used by the farmers to assure cheese factories or public opinion that their animals live in a farm with high level of welfare. Helping dairy farmers in producing such a self certification is a great opportunity for veterinarians: they could use their knowledge on cattle welfare to improve the social reputation of dairy farms, while allowing their "patients" to live a better life.



 Notes





Ignacio Blanco-Traba

Joined McDonald's in 2001 as European QA Manager Beef & Pork products

Prior to McDonald's held positions as Manager in Fish Farms, QA Manager at Meat Companies, including raw material supply chain Manager at OSI Spain (McDonald's beef patty supplier)

Academic Background: Degree in Veterinary Medicine, UCM Madrid, Spain Master in Fisheries and Fish Farming, ICADE-IME, Madrid, Spain

Married, 4 children and currently residing in Madrid, Spain

Animal welfare standards – Example of McDonald's supply chain

Ignacio Blanca-Traba Beef Category Lead, Supply Chain, McDonald's Europe





Dr. David C.J. Main

David Main is a veterinary surgeon and Reader in Animal Welfare at the University of Bristol Veterinary School. He is a former member of the Farm Animal Welfare Council, and current member of Soil Association Council. He has research interests in welfare assessment, intervention strategies to improve welfare and animal welfare education. He is project co-ordinator of the AssureWel project, a collaboration with RSPCA and Soil Association, that aims to embed welfare outcomes into the assurance process of certification schemes. He was principle investigator for the Healthy Feet project that has been widely adopted by the dairy industry and he is also part of the EU WelNet project that is a network of welfare scientists providing welfare advice to the European Commission.



Farm animal welfare: What's behind labels?

Dr. David C.J. Main Department of Clinical Veterinary Science, University of Bristol, UK

Consumers and retailers of livestock products in many countries are interested in animal welfare. The food industry has responded to this interest in a variety of different ways (FAWC, 2011). For example products can be labelled as adhering to certain assurance or organic scheme standards (Veissier et al., 2008, Mench 2008). Products may also be labelled according to their method of production, such as free range or outdoor- reared. Some products may also use more general higher animal welfare marketing claims, such as "higher welfare" or "welfare friendly". In addition to consumer-focused labels or descriptors, animal welfare criteria can be included alongside other food safety or quality specifications required by retailers. Retailers may include this requirements as part of pro-active Corporate Social Responsibility policies or as part of a defensive strategy to diffuse potential negative media interest. Whilst all these initiatives are essentially market driven some systems such as labelling of eggs and organic standards are supported by a European legislative frameworks.

Provided there is an underlying concern for animal welfare amongst consumers, there are, therefore, many opportunities for marketbased initiatives. These market initiatives may or may not be associated with a premium price for the product. For example many organic products attract some premium although this can be very variable between different livestock sectors. Whereas differentiation in price is not always obvious to the consumer when retailers or even food service businesses, such as McDonalds, insist the standard product must meet certain welfare criteria.



RSPCA Freedom Food scheme, UK

Voluntary certification schemes can vary in extent of welfare requirements and in the levels of credibility. Animal welfare focused schemes such as the RSPCA Freedom Food scheme in UK or Beter Leuven scheme in Holland go beyond legislation and include requirements such as higher space allowance or access to pasture depending upon the species. Whereas industrybased schemes such as Red Tractor Assurance in UK and AMA Gütesiegel in Austria whose membership includes the majority of the industry are primarily based upon national welfare



legislation. Even though standards of these schemes may not be particularly high they can confer genuine benefits where farms are regularly inspected. Schemes accredited to the generic certification scheme standard EN45011 are normally visited annually which in Europe is more frequent than official inspections undertaken by the competent authority (normally 2% of farms annually). Accredited schemes also need to demonstrate independent certification, training and monitoring of assessors which is important for the credibility of the scheme. Without accreditation of certification scheme it can be difficult to verify the credibility and transparency of welfare marketing claims made directly by retailers.

and cleanliness for laying hens, to promote improvement amongst their members (Main et al. 2012). This includes encouraging the producer to seek further advice and support and, where appropriate, using the result to justify a non-compliance against relevant standards relating to the management of the issue. The ultimate goal of this approach is to promote continuous improvement amongst its members.



AMA Gütesiegel, Austria

Whilst there has been much positive activity in many different countries with respect to animal welfare assurance systems their remains two critical challenges. Firstly the range in different approaches is confusing even for an interested informed consumer. Secondly a lack of standardisation means that it is difficult to promote trade in equivalent higher animal welfare products.



Compassion in World Farming, UK



Red Tractor Assurance, UK

Most approaches to consumer information place strong emphasis on resource requirements. A key problem with a pure resource-based approach is that the variability between farms in day to day management can lead to significant variability in animal welfare. Expert animal welfare advisory groups, such as FAWC (2005) and EFSA (2012), have promoted an increased use of outcome-based approaches. As part of the AssureWel project, the RSPCA Freedom Food and Soil Association scheme have introduced the formal assessment of outcome measures, such as feather cover



As part of the European Union Strategy for the Protection and Welfare of Animals 2012-2015 "a simplified EU legislative framework for animal welfare" has been proposed (EC, 2012). The commission suggested that this framework should consider "transparency and adequacy of information to consumers on animal welfare for their purchase choice". Regulatory frameworks do exist for some methods of production systems, such as laying hens, however, some animal welfare organisations (Compassion in World Farming, RSPCA, WSPA and Soil Association) are actively campaigning for an extension of mandatory method of production labelling beyond laying hens to other species (Anon, 2012). For promoting standardisation between certification schemes in different countries it may also be possible for animal welfare focused schemes to agree a voluntary international standard based upon best practice principles that would be applicable in any country.

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Miyun Park

Miyun Park serves as Executive Director of Global Animal Partnership, a multi-stakeholder, nonprofit charitable organization founded in 2008 that brings together farmers, scientists, ranchers, retailers, and animal advocates—a diverse group with the common goal of promoting continuous improvement in the welfare of animals in agriculture, principally through its signature initiative, the 5-Step Animal Welfare Rating program. Already, 5-Step, a unique, multi-tiered welfare program, has become a leading farm animal welfare certification system in North America and is soon launching in other regions of the world.

Miyun serves on the Editorial Board of the United Nations' Food and Agriculture Organization's Gateway to Farm Animal Welfare portal, has written extensively on the issue of farming and animal well-being, including a chapter in State of the Animals IV: 2007 co-authored with Andrea Gavinelli, Head of the European Commission's Animal Welfare Unit. She has been an invited speaker on farm animal welfare throughout the United States and around the world, including China, Hungary, India, Croatia, Korea, Belgium, Egypt, and Italy, and engages directly with producers and purveyors to improve the lives of farm animals.

Global Animal Partnership and the 5-Step Animal Welfare Rating Standards Program

Miyun Park Global Animal Partnership, Washington DC, USA

Introduction

The primary mission of Global Animal Partnership, a multi-stakeholder, nonprofit charitable organization founded in 2008, is to work collaboratively to facilitate and encourage continuous improvement in animal agriculture through a number of strategies surrounding our signature program that assesses the level of welfare afforded to farm animals—the 5-Step Animal Welfare Rating Standards.

Our Board of Directors and Welfare & Farming Advisory Council include expert leadership from several sectors: farming, ranching, retail, science, academia, and animal welfare advocacy. The diverse group shares the common commitment of working together to improve the welfare of animals in agriculture.

Board of Directors

Mike Baker, CEO, World Society for the Protection of Animals; Ian Duncan, Professor Emeritus and Chair in Animal Welfare, University of Guelph; Leah Garcés, USA Director, Compassion in World Farming; Steve Gross, Chairman, Farm Forward; Edmund LaMacchia, Global Vice President of Procurement - Perishables, Whole Foods Market; John Mackey, co-founder and co-CEO, Whole Foods Market; Wayne Pacelle, CEO and President, Humane Society of the United States; Dan Probert, former Executive Director, Country Natural Beef, and Owner-Rancher, Probert Ranch; Bernard Rollin, University Distinguished Professor, University Bioethicist, and Professor of Philosophy, Biomedical Sciences, and Animal Sciences, Colorado State University; George Siemon, CEO, Organic Valley and Organic Prairie; Paul Willis, Manager, Niman Ranch Pork Co.







The 5-Step Animal Welfare Rating Standards Program

Our signature initiative was developed as multitiered standards that, through their very design, promote continuous improvement in animal agriculture. Each set of tiered standards-from Step 1 to Step 5+-has its own requirements that must be met before certification to that particular Step level is assigned, if appropriate. Producers have the freedom to aim for any Step level they choose. Each Step rating has its own distinct label affixed on products that identifies the particular Step level achieved.

Single-tiered, pass/fail schemes assess producers to just one set of standards. In this way, those who become certified by meeting the minimum requirements are not incentivized to increase the level of welfare afforded to animals, nor are those producers who far exceed the minimum requirements accurately recognized for their higher welfare practices. As well, it can be argued that single-tier programs are challenged by not incorporating the many factors that impact animal production, such as diversity in geography, climate, scope, and other operational realities.



In contrast, our 5-Step Program:

- 1. **inspires producers** to move up the welfare ladder, if they so choose;
- enables the full spectrum of producers to become involved, rather than a minority segment of a niche agricultural community that may meet a single set of standards;
- allows for greater and more diverse product supply for expanded consumer options;
- more accurately and justly rewards and recognizes producers for their specific welfare practices;
- 5. is inclusive of diverse production models and geography;
- 6. encourages innovation and viability for farmers and ranchers; and
- better informs consumers about the production systems they may choose to support.

In essence, Step 1 prohibits cages and crates. Step 2 requires environmental enrichment for indoor production systems; Step 3, meaningful outdoor access; Step 4, pasture-based production; Step 5, an animal-centered approach with all physical alterations prohibited; and, finally, Step 5+, the entire life of the animal spent on an integrated farm. The standards are, of course, much more complex than these short take-away criteria and include stipulations for every aspect of on-farm/on-ranch production.

Rooted in science and incorporating on-farm realities, the 5-Step standards are developed through a rigorous process that includes expert ad hoc councils and public comment prior to ratification by the Board of Directors. Presently, 5-Step standards are available for chickens raised for meat, cattle raised for beef, pigs, and turkeys. Our current workplan includes development of standards for egg-laying hens, small



ruminants, dairy cattle, and bison. Additional species will be included in the 5-Step program in the future, as well as standards specifically focusing on breeding and slaughter.

Unlike many other standard-setting bodies, Global Animal Partnership elected not to conduct our own audits and verification of farms and ranches, but rather to **work with independent, third-party certification companies**. In this way, as the standard-setter, we are **best positioned to remain objective and maintain the integrity of our 5-Step Program**, which also benefits the producers, consumers, and retailers. As well, we are able to provide guidance and mentorship to producers without any conflict of interest.

Producer Participation

As of 1 April 2013, more than 2,100 farms and ranches currently hold certificates ranging from Step 1 to Step 5+. These GAP Step-rated producers raise an estimated 140 million animals annually according to our higher welfare standards.

Participation in the 5-Step Program enables producers to:

- be recognized for their commitment to improving the well-being of animals;
- more accurately and justly differentiate their practices in the marketplace;
- directly communicate to the growing number of consumers who want to support their higher welfare products;
- trust in the accuracy of the Step rating producers may receive from independent, third-party certifiers;
- get the technical guidance, encouragement, and support producers may want;

- market products to restaurants and groceries that are seeking suppliers who incorporate animal welfare into their onfarm and on-ranch practices; and
- add their voice to our multi-stakeholder effort, which understands that we must work together to best benefit animals, producers and their farming community, and retailers and their customers.

Conclusion

Our broad, multi-stakeholder scope—with animal advocacy organizations at one end of the spectrum and animal producers on the other, and joined by scientists, retailers, and consumers—is truly novel, as is our multi-tiered 5-Step Animal Welfare Rating Standards Program.

By inspiring and actualizing positive changes in agriculture, recognizing producers for their welfare practices, informing consumers about how their meat was produced, and partnering with retailers to offer a wide selection of products, rather than a limited, niche offering, and communicating that commitment to their customers, Global Animal Partnership, through the 5-Step program, is working to improve the welfare of animal agriculture to the benefit of myriad stakeholders, including the animals themselves.



Ν	otes

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