



Paper

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Private animal health and welfare standards in quality assurance programmes: a review and proposed framework for critical evaluation

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In recent years, 'private standards' in animal health and welfare have become increasingly common, and are often incorporated into quality assurance (QA) programmes. Here, we present an overview of the use of private animal health and welfare standards in QA programmes, and propose a generic framework to facilitate critical programme review. Private standards are being developed in direct response to consumer demand for QA, and offer an opportunity for product differentiation and a means to drive consumer choice. Nonetheless, a range of concerns have been raised, relating to the credibility of these standards, their potential as a discriminatory barrier to trade, the multiplicity of private standards that have been developed, the lack of consumer input and compliance costs. There is a need for greater scrutiny of private standards and of associated QA programmes. We propose a framework to clarify the primary programme goal(s) and measurable outputs relevant to animal health and welfare, the primary programme beneficiaries and to determine whether the programme is effective, efficient and transparent. This paper provides a theoretical overview, noting that this framework could be used as a tool directly for programme evaluation, or as a tool to assist with programme development and review.

Introduction

Standards play a central role in modern society, being rules, specifications or guidelines to ensure that inputs, processes and/or outputs are consistent and fit for purpose. International standards are critical to global business, as they limit barriers to trade, improve product quality and limit environmental impacts (Mattli and Büthe 2003). International standards also bring benefits to consumers, providing confidence that products and services are safe, reliable and of good quality (ISO 2016).

There is a long tradition of 'public standards' in animal health (Zepeda and others 2001). These are mandatory rules,

underpinned by legislation and applied by governments, to achieve desired animal health outcomes. Public animal health standards broadly seek to protect human health and to improve (or maintain) the health status of a nation's animals (Ragan and others 2013). Examples include measures to support the control of endemic disease, to respond to exotic disease incursions and, in many countries, to facilitate the traceability of live animals through animal identification. Public standards are also applied in animal welfare, for example, with respect to the protection of animals at the time of slaughter in the EU (EU Council Directive 1099/2009).

In recent years, there has been an emergence, indeed proliferation, of 'private standards' in a range of areas, including animal health and welfare. Private standards are defined as any standard developed by an entity outside of government (ISO 2010), and are generally voluntary rather than mandatory (WTO 2014). They frequently place emphasis on socially important issues such as those relating to (product) quality/safety, the environment or animal welfare, often with associated claims, certification and labelling (ISO 2010). Furthermore, private standards are often incorporated into quality assurance (QA) programmes or schemes (the terms are used interchangeably) in which aspects of food quality/safety (eg, Arlagården by Arla, a cross-border dairy cooperative with head office in Denmark; Foqus planet by FrieslandCampina, The Netherlands), sustainability (the Sustainable Dairy Assurance Scheme (SDAS) run by Bord Bia, Ireland) or animal welfare (The Freedom Food Scheme, UK) are assessed. Such programmes 'assure' the associated private standard (eg, the Freedom Food Scheme assures the Royal Society for the Prevention of Cruelty to Animals (RSPCA)'s welfare standards). Obviously, private standards should also 'assure' the requirements of existing legislation (ie, public standards) in the

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area ([Council Directive 2008/119/EC](#) on the protection of calves). [Lundmark and others \(2016\)](#) provide examples that illustrate why this is not always achieved. In any case, the assurance offered by private standards is generally established by setting out the necessary criteria to produce quality products, although such programmes rarely provide a detailed, formalised plan of how this is to be achieved ([European Commission 2012](#)). They are generally designed to record and assess data to demonstrate the superiority of the production processes. To illustrate, the SDAS includes a list of the standards the SDAS complies with, a process (through independent auditing) for ensuring that the criteria, as set out in the standard, are met and that the relevant details are published, the process for collecting and analysing the data under the set scheme criteria, and the certification process whereby all the data collected are evaluated for compliance with the standard ([Bord Bia 2013](#)).

The emergence of private standards raises a number of challenges. For example, assurance schemes associated with private standards offer market opportunities, in part through product differentiation. Therefore, private standards offer the potential for substantial competitive advantage but without the level of scrutiny required of public standards. Other concerns include the lack of harmonisation, the costs of compliance, the credibility of associated claims and the potential that such standards may create a discriminatory barrier to trade ([Mahé 1997](#), [Lundmark and others 2014](#), [Pastore 2014](#)). For this reason, a framework is needed to allow robust and critical review of private animal health and welfare standards. As yet, however, there has only been limited work in this area ([Main and others 2014](#)).

In this paper, we present an overview of the use of private animal health and welfare standards in QA programmes, including perceived benefits and concerns. We also propose a generic framework to facilitate critical programme review. The framework can assist during programme development or subsequent evaluation to clarify the primary programme goal(s), the measurable outputs relevant to animal health and welfare and the primary programme beneficiaries, and to evaluate programme effectiveness, efficiency and transparency.

Public animal health and welfare standards

Animal health

Countries differ with respect to the health status of their animals ([Thomson and others 2009](#), [Hop and others 2014](#)). Consequently, public animal health standards have the potential to create barriers to transnational trade in animals and animal by-products, particularly from countries of lower to higher animal health status. With respect to cattle production, export opportunities are heavily influenced by the animal health status of exporting countries. Country status with respect to foot and mouth disease ([Thomson and others 2009](#)) or bovine spongiform encephalopathy ([O'Neill 2005](#)) is particularly influential.

Given this background, a sophisticated international framework has developed around the use of public animal health standards. The Application of Sanitary and Phytosanitary Measures (the SPS Agreement), an agreement of the World Trade Organization (WTO), seeks to facilitate the free flow of trade between countries, while also protecting against undesirable side effects, either economic or related to human or animal health and welfare. In essence, the SPS Agreement seeks to strike a balance between the rights of governments to protect animal and human health and their desire to see goods flow smoothly in international trade ([WTO 2010](#)).

In the area of animal health, the International Organisation for Animal Health (OIE) is formally recognised by the WTO as the reference organisation responsible for establishing international standards relating to animal disease ([WTO 2010](#)). Under the SPS Agreement, public animal health standards must operate within defined principles including:

- ▶ *Justification of measures*: SPS measures must be applied for no other purpose than food safety and animal and plant

health. Measures should be based as far as possible on the analysis and assessment of objective scientific data.

- ▶ *Harmonisation with international standards*: SPS measures should be consistent with international standards, guidelines and recommendations.
- ▶ *Equivalence*: an acceptable level of risk can be achieved using alternative measures.
- ▶ *Transparency*: countries are required to report openly, including how requirements are justified and regulations are applied.

Animal welfare

In the area of animal welfare, there is considerable progress towards the development and implementation of public standards in some countries, in particular within the EU ([Bonafos and others 2010](#)). For example, EU legislation is in place to provide minimum standards for the production, transport and slaughter of farm animals, which member states are obliged to implement ([Fraser 2008](#), [Council Regulation \(EC\) No. 1099/2009](#)). Each member state can opt to exceed these minimum standards and several do ([Schmid and Kilchsperger 2010](#)). Thus, public standards differ within the EU. The European Food Safety Authority developed a series of opinions on animal welfare to inform policy decision-makers, primarily within the EC, and advocates the application of animal needs to incorporate welfare outcomes, including direct and indirect animal-based measures ([EFSA 2015](#)).

In contrast to animal health, progress towards international standards in animal welfare has occurred relatively recently. This global standard has been overseen by the OIE, and while legal provisions for farm animal welfare may be higher in the EU, the OIE standard is an important step forward on the global stage, adopted by consensus by all OIE Member Countries, covering areas including animal transport, killing for disease control purposes, slaughter and killing for human consumption, animal production systems, the use of animals in research and education and stray dog population control ([OIE 2015](#)).

Private animal health and welfare standards

Private standards in animal health and, more particularly, animal welfare are increasingly important, and are now a consideration in some global agri-industrial food chains, influencing both domestic business and international trade ([Fuchs and Kalfagianni 2010](#), [Hoffmann and others 2014](#)). Furthermore, recent Action Plans of the EC (2006–2010 and 2012–2015) envisioned a move away from public to private standards in the animal welfare domain, recommending 'transparency and adequacy of information' to enable consumers to make an informed choice to purchase 'welfare-friendly' products. Private standards are developed and managed by a range of stakeholders, including farming organisations, retailers and non-governmental organisations, and are generally independent of government.

Private standards emerge in direct response to societal and consumer demands for assurance of the quality of food products with animal origin ([Butterworth and Kjaernes 2007](#), [Veissier and others 2008](#), [WTO 2014](#)), giving producers an additional opportunity for product differentiation. Clear labelling of the products certified by private standards is a powerful tool to inform consumer choices. In comparison to public standards, private standards are also more easily developed and implemented ([Vanhonacker and Verbeke 2014](#)), which allows businesses the opportunity to rapidly respond to a changing external environment. Private standards also bring benefits to intermediate actors in the food supply chain by assuring standards and thereby protecting liability and reputation for product and label claims. For farmers, there is the potential for increased market access, market share and profit margins through the sale of products certified under a private standard. There is also the possibility of financial benefit to farmers from real improvements to animal health and welfare arising from association with private

standard schemes provided that they incorporate a continuous improvement approach (Main and others 2014). Furthermore, Clark and others (2016) identified that farmers in private standards schemes show better compliance with animal welfare regulations than non-members. This suggests that there are potential benefits for animal welfare and therefore also for society.

While the benefits are clear, certainly for industry, there are a range of concerns with respect to the emergence, and widespread adoption, of private standards in animal health and welfare:

- ▶ A key concern relates to *the credibility of private standards*, specifically whether the stated benefits to animals and consumers can be justified. For example, are objective data available to support claims of high quality? Are the standards any better than baseline requirements in the country of origin, as outlined in relevant legislation? With a focus on improved quality, for example, such claims should be a consequence of a difference in comparison to both a defined legislative baseline and good farming practice. It is necessary to distinguish 'good enough' (the legislative baseline in the country of origin), from 'better' (good farming practice) and 'best' (eg, a quality claim regarding animals raised to comply with a defined private standard). However, the diversity of legal standards within the EU may mean that 'good enough' in the country of origin may not comply with the baseline standards in the country of sale. In addition, there is a need to determine whether private standards are underpinned by the best-available science. With respect to animal welfare assessment, for example, most private standards focus on the use of resource-based measurements. However, there is now scientific consensus on the need for inclusion of outcome-based (or animal-based) measures during animal welfare assessments. This is reported in private standards in Sweden (Lundmark and others 2016), but as yet, adoption of outcome-based measures in private standards is limited (EFSA 2015).
- ▶ By definition, private standards are *outside the sphere of government*. As such, key principles underpinning governments in democratic societies, including legitimacy, accountability and transparency, may not necessarily apply. In the public sphere, public policies are considered legitimate because of the role played by citizens, indirectly through elected representatives, in making the rules. Furthermore, citizens are able to hold decision-makers to account for their decisions, either through elections or courts of law (Fuchs and Kalfagianni 2010). Equivalent levels of protection are not available with private standards.
- ▶ A further concern relates to market access, and the potential use of private standards as *a discriminatory barrier to trade*. Although unenforced by law, private standards may de facto affect market access (WTO 2014). This may unfairly impact on domestic markets, with private standards (and associated QA programmes) being used for product differentiation, primarily to create a barrier to non-compliant (including imported) product. Private standards may also unreasonably restrict international trade through the creation of barriers that are more restrictive than necessary to protect human health or animal health and welfare (Robach 2010). Specific concerns about the impact of these standards on small farmers and/or developing countries have been raised (Thorstensen and others 2015).
- ▶ *The multiplicity of private standards* also raises concerns. For example, there is as yet no consensus on a common framework for private standards underpinning animal welfare claims to consumers. This is despite the development of best practice guidelines, which were published by the Commission in 2010 (European Commission 2010). From the perspective of programme review, different programmes cannot be evaluated if there is a lack of standardisation and incomplete transparency (Kirk-Wilson 2002). However, it should be noted that harmonisation may not be in the interests of the owners of private standards who are seeking points of difference with respect to products that are otherwise similar.
- ▶ Several authors highlighted *the lack of consumer input in the development of private standards*. QA programmes are generally developed by retailers and producers, based on their assessments of consumer needs and expectations, with no formal consumer input (Kirk-Wilson 2002). It is not surprising that such programmes may not meet consumers' expectations. Furthermore, consumers are often unclear about the role played by government and industry in these programmes. In the UK, the [Farm Animal Welfare Forum \(2011\)](#) suggested that such confusion leads to frustration among consumers in their choice which is not helped by a lack of clarity and transparency in labelling (Kirk-Wilson 2002).
- ▶ '*Market-driven animal welfare*'. Private standards have proliferated in direct response to consumer concerns about food safety and societal concerns (Henson and Humphrey 2010). However, evidence is currently lacking that animal welfare as a societal concern is improved by such standards. As outlined by [Degeling and Johnson \(2015\)](#), this raises concerns about the increasing reliance on the market to 'drive' improvements in animal welfare. They argue that when the emphasis switches to market-driven animal welfare (ie, animal welfare as a private rather than a public good), certain citizens in society (eg, non-consumers) may have less of an input into animal welfare improvements. Indeed, there is a risk that animal welfare could become dissociated from the concept of a 'public good' in which the concerns of all sectors of society are usually met through national legislation and policies.
- ▶ Finally, *compliance costs* may put some burden on farmers and the industry (Grethe 2007). Primary costs to the farmer include adjustment of on-farm infrastructure, operations and environment to meet the scheme's requirements. In some cases, farmers are penalised financially if found not to be in compliance with such requirements during an audit (eg, Arla scheme members). Payment for participation, with the highest charges observed for organic standards, may be paid by the farmer as a membership fee directly to the scheme (Freedom Food), or to the vet or assessor conducting the evaluation (Cow Compass/Friesland Campina). Fees may also be incorporated into the calculation of the milk price paid to the farmer by the dairy cooperative (Bord Bia). Furthermore, there is growing awareness of the 'non-voluntary' nature of some QA programmes, particularly once the proportion of farmers affiliated to a private scheme is high. In these circumstances, some farmers perceive QA programmes as an economic necessity, rather than a voluntary choice (Hubbard and others 2007).

Over the last 10 or so years, there were many discussions in both the WTO and OIE about the implications of private standards for the international trade of animals and animal products (OIE 2008, 2010a, Wolff and Scannell 2008). These discussions are ongoing, without clear conclusions. Concerns about private standards were raised within the WTO, and by the OIE members, relating to problems of market access, compliance costs and poor alignment to internationally agreed standard-setting principles including transparency and scientific justification (Wolff and Scannell 2008). However, benefits were also identified, particularly by the OIE members in high-income countries with respect to animal welfare standards. In part, private standards meet needs that are not currently addressed by the OIE standards. They also create and improve links between producers

and retailers (OIE 2010b). In 2010, the OIE suggested that the role of private standards should be limited to supporting the implementation of official standards (OIE 2010a). Subsequently, Bayvel and Mellor (2014) acknowledged that private animal welfare standards will remain important, but should be increasingly cognisant of the OIE standards as international benchmarks.

A framework to critically evaluate private standards The challenge

Private standards increasingly represent a significant competitive instrument, conferring often substantial economic advantages to certain sectors/business, either through product differentiation or risk management (Henson and Reardon 2005, Henson and Humphrey 2010). There are a range of legitimate concerns with private standards including those with the potential to impact, either directly or indirectly, on the veracity of claims of specific quality attributes. Given this background, there is a clear need for greater scrutiny of private standards and of associated QA programmes (Lundmark and others 2016). As yet, however, no framework is available, to enable consistent, critical evaluation of different standards and programmes. Main and others (2014) propose a best practice framework for animal welfare certification schemes. These authors focus on the standardisation of welfare assessment at farm level and define a set of best practice principles that would apply to an effective certification scheme that aims to include animal welfare within its scope. Notwithstanding the importance of this work, they do not provide a generic framework which can be used for the evaluation of programmes or as a tool which can be used to assist with programme development and review.

A proposed framework for critical evaluation

In developing this framework, we borrowed heavily from lessons learned from public standards. We particularly focus on the principles that have developed internationally to underpin public standards, by the WTO, OIE and other relevant bodies. The WTO's SPS Agreement is particularly relevant (WTO 2010). These principles can also be adapted to guide a framework for private standard evaluation. Lessons can also be learned from the challenges faced during the development and application of public standards. Public standards are generally developed on the basis of consensus, reflecting the lowest standard that is acceptable to all (Lundmark and others 2014). In addition, they may lag behind current scientific thinking and are also open to legislative interpretation, with the potential for considerable variability between different countries.

The proposed framework is presented in [Box 1](#).

The rationale for each component of the framework is as follows:

- A. What are the primary programme goal(s) (and associated measurable outputs) relevant to animal health and welfare?

There is a need to clearly understand the broader context (commercial, cultural, etc) in which the programme is operating. What have been the primary drivers for programme development and implementation? The primary programme goal(s), relevant to animal health and welfare, need to be clearly defined. Furthermore, it is necessary to determine whether it is possible to objectively evaluate progress towards these programme goal(s). In particular, how is progress assessed? Do these measurements appropriately reflect progress towards the programme goal(s)? Do they measure programme outputs (what is being achieved?), rather than inputs (what is being done)? Can they be robustly measured?

The importance of this step is perhaps best illustrated in the context of 'sustainability', which is a primary goal of a number of QA programmes. This term is not regulated, and therefore its meaning is open to interpretation (Perroni 2016). Increasingly,

agriculture is discussed in terms of social, environmental and economic (eg, profitability for the farmer) impact, including sustainability with respect to animal welfare (OIE 2016). The term has traditionally related to the area of environmental sustainability, which can be measured in terms of greenhouse gas emissions, water and soil conservation, improved biodiversity, animal longevity and robustness, etc. It is useful to note that even among environmental scientists there is neither an agreed understanding of the term nor accepted criteria with supporting test methods to measure it (Morelli 2011). Relevant to this proposed framework, a programme and associated standards cannot be objectively evaluated in the absence of defined goal(s) relevant to animal health and welfare, and measurable outputs. In this respect, issues surrounding the definition and measurement of animal welfare in particular pose similar if not even more difficult challenges to environmental sustainability. For example, Sandøe and Simonsen (1992) suggest that the measurement of animal welfare must be an interdisciplinary inquiry involving philosophical reflections and theoretical biology if it is to provide relevant, rational and reliable information.

- B. Who are the primary programme beneficiaries?

Interested parties should have a clear understanding of the primary beneficiaries of the programme, and of the relative benefit gained if there are multiple beneficiaries. This calls for transparency in reporting, where clear information about those who benefit most from the introduction of private standards and associated QA programmes is readily available. This information can also help to test concerns relevant to market access and the potential use of private standards as a discriminatory barrier to trade. In this regard, further evaluation would be justified if programme benefits mainly flow to industry and/or farmers.

- C. Is the programme effective?

These questions evaluate the credibility of the private standards, specifically whether the stated benefits to farmers, consumers and animals can be justified. At its most basic, comparison is needed between the private standard and legislative baseline (as outlined, eg, in EU Regulations), and between the private standard and good farming practice. Do the standards reasonably reflect the quality claims of 'best', in comparison to 'better' or 'good enough'? Of relevance to this, information is needed on the influence of world-class science, both currently and into the future, on the design, application and evaluation of the private standard(s). With respect to the programme, information is sought on approaches to farm-level compliance, on the process of ongoing review and whether there is a demonstrated culture of continuous improvement. Furthermore, is there objective evidence of progress towards increasing product quality?

- D. Does the programme seek to maximise efficiencies?

QA programmes have the potential to place considerable demands on individual farmers, noting that it is farmers who take exclusive responsibility for the quality and safety of all products that leave their farm. With other industries, however, responsibility is often divided between a larger number of entities throughout the production chain. With this in mind, there is a need for clarity with respect to cost allocation, both by farmers and other beneficiaries. Furthermore, information is needed about efforts to maximise programme efficiencies, including linkages with existing on-farm auditing, existing national efforts towards improved animal health and welfare and national animal health and welfare research.

- E. Is the programme transparent?

Transparency is a key principle of the SPS Agreement (WTO, 2010), and increasingly important in EU legislation (Council Regulation 1049/2001). Is sufficient information disclosed to

BOX 1: Proposed framework for critical evaluation of private standards and associated quality assurance (QA) programmes**A. What are the primary programme goal(s) (and associated measurable outputs) relevant to animal health and welfare?**

The QA programme

- ▶ What is the broader context (commercial, cultural, etc) in which the programme operates? What have been the primary drivers for programme development/implementation?
- ▶ What is the primary goal(s) of the programme? How is this relevant to animal health and welfare?
- ▶ Is it possible to objectively evaluate progress towards this programme goal(s)? What measures are currently used? Are these measures relevant, output-based and robustly measurable?

B. Who are the primary beneficiaries of the programme?

Individual beneficiaries

- ▶ Society
 - Does society substantially benefit from the QA programme, through measured/able improvement in animal welfare and/or public health?
- ▶ Consumers
 - Do consumers substantially benefit from the QA programme, through measured/able improvement in product quality?
- ▶ Industry (food processing, food marketing)
 - Does industry substantially benefit from the QA programme, through measured/able improvement in profitability, product differentiation and/or facilitated market access?
- ▶ Farmers
 - Do farmers substantially benefit from the QA programme, through measured/able improvement in on-farm profitability?
- ▶ Animals
 - Do farm animals substantially benefit from the QA programme, through measured/able improvement in on-farm animal health and welfare?
- ▶ Other beneficiaries?

Primary beneficiaries

- ▶ Who are the primary beneficiaries of the programme? What is the relevant balance with respect to individual beneficiaries (consumers, farmers, etc)? Are the costs (see below) and benefits borne equitably?

C. Is the QA programme effective?

The standards

- ▶ Do the standards exceed the legislative baseline (*'good enough'*)? Do they exceed good farming practice (*'better'*)? Can they reasonably represent *'best'*?
- ▶ Are the design, application and evaluation of standards underpinned by world-class science? Is there evidence of, and opportunities for, modification of standards with changing scientific knowledge? Are outcome-based and input-based measures of animal welfare used, where appropriate?
- ▶ Are the standards aligned to international public standards, if available?

The QA programme

- ▶ Programme performance
 - Is there objective evidence of ongoing improvement, with respect to the programme outputs, as defined in A.?
 - Is the programme under ongoing review? How is this done? Is there a commitment to, and facilities to support, continuous programme improvement?
 - What strategies are used, including benchmarking, to facilitate ongoing improvement among participating farmers?
- ▶ Programme operation
 - Assessing farm-level compliance
 - How is compliance assessed?
 - What auditing processes are used?
 - What steps are taken to achieve consistency in compliance decision-making (ie, achieving interobserved agreement)?
 - Addressing farm-level non-compliance
 - How is non-compliance addressed?
 - What sanctions are applied?

D. Does the QA programme seek to maximise efficiencies?

The QA programme

- ▶ How are the programme costs allocated?
- ▶ Does the programme link with existing on-farm auditing requirements, to minimise duplication of on-farm effort?
- ▶ Does the programme work synergistically with existing national/regional/sector-level efforts towards improved animal health and welfare?
- ▶ Does the programme link to national (and relevant international) research efforts in animal health and welfare?

E. Is the QA programme transparent?

The standards

- ▶ Are the on-farm standards readily available?

The QA programme

- ▶ Programme governance
 - The overall programme
 - Is there transparent reporting of programme structure and activities (including members of the governance body, meeting dates and agendas, meeting minutes)?
 - What governance strategies are in place to handle potential conflicts of interest?
 - Does the programme provide ongoing financial reporting?
 - The standard-setting process
 - Is there transparent reporting of the standard-setting process (including members of the governance body, meeting dates and agendas, meeting minutes)?
 - What governance strategies are in place to handle potential conflicts of interest?
- ▶ Programme operations
 - Is there transparent, objective, timely and ongoing reporting of key programme statistics, including annual data on:
 - The number of farms enrolled
 - At the start of the year (existing)
 - During the year (new)
 - During the year, the number of farms deemed:
 - Compliant (certified)
 - Non-compliant, in each case outlining reasons for non-compliance
 - Coverage (number enrolled/number that could potentially participate)
 - Can programme decisions be appealed? How is the appeal process regulated? Is there transparent reporting of appeal decisions?
 - Is there transparent reporting of ongoing programme development and review, including the date and reasons for major programme modifications?

enable objective appraisal by interested people of a QA programme and associated standards? As one example, is it possible to determine whether programme standards are justified and aligned to international best practice? Transparency is required at all levels, allowing scrutiny of issues including governance, standard setting, data analysis, appeals and programme review. There is also a wider need for programmes to demonstrate that they are open to direct consumer influences. The appointment of consumer representative(s) on their decision-making bodies would reflect a commitment to the principle of transparency.

Conclusions

Here, we present a framework to facilitate critical evaluation of private standards and associated QA programmes borrowing from lessons learned with public standards. The framework focuses on the primary goal(s) and measureable outputs of the programme relevant to animal health and welfare, the primary programme beneficiaries, the effectiveness and efficiency of the programme and programme transparency. This paper provides a theoretical overview, noting that the proposed framework could be used as a tool directly for programme evaluation, or as a tool to assist with programme development and review. As a next step, this framework will be used to evaluate existing private standards and associated QA programmes.

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References

- BAYVEL, A. C. D. & MELLOR, D. J. (2014) Concluding comments: OIE leadership, significant trends and future developments. *Revue scientifique et technique/Office international des épizooties (OIE Scientific and Technical Review)* **33**, 323–326
- BONAFOS, L., SIMONIN, D. & GAVINELLI, A. (2010) Animal welfare: European legislation and future perspectives. *Journal of Veterinary Medical Education* **37**, 26–29

- BORD BIA (2013) Sustainable Dairy Assurance Scheme. Producer Standard. Bord Bia, Irish Food Board. Revision 01, December, 2013. www.bordbia.ie/industry/farmers/quality/SDQASDocuments/SustainableDairyAssuranceScheme-ProducerStandard.pdf. Accessed June 8, 2016
- BUTTERWORTH, A. & KJAERNES, U. (2007) Exploration of strategies to implement welfare schemes. In Assuring animal welfare: from societal concerns to implementation. Second Welfare Quality® conference, Berlin, Germany, 3–4 May 2007, pp 37–40. <http://www.welfarequality.net/downloadattachment/36059/19616/Proceedings%202nd%20WQ%20Stakeholder%20conference%203-4%20May%202007.pdf>. Accessed 31 March 2017
- CLARK, C. C., CRUMÉ, R., KILBRIDE, A. L. & GREEN, L. E. (2016) Farm membership of voluntary welfare schemes results in better compliance with animal welfare legislation in Great Britain. *Animal Welfare*, **25**, 461–469
- DEGELING, C. & JOHNSON, J. (2015) Citizens, consumers and animals: what role do experts assign to public values in establishing animal welfare standards? *Journal of Agricultural and Environmental Ethics* **28**, 961–976
- EFSA (2015) The use of animal-based measures to assess animal welfare in EU – state of the art of 10 years of activities and analysis of gaps. European Food Safety Authority, Italy. [www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/884e_0.pdf](http://ec.europa.eu/sites/default/files/scientific_output/files/main_documents/884e_0.pdf). Accessed June 8, 2016
- EUROPEAN COMMISSION (2010) Commission Communication - EU best practice guidelines for voluntary certification schemes for agricultural products and foodstuffs (2010/C 341/04). *Official Journal of the European Union* C341, 5–11
- EUROPEAN COMMISSION (2012) Communication from the Commission to the European Parliament, The Council and the European Economic and Social Committee on the European Union Strategy for the Protection and Welfare of Animals 2012–2015. COM(2012) 6 final/2. http://ec.europa.eu/food/animals/docs/aw_eu_strategy_19012012_en.pdf. Accessed June 17, 2016
- FARM ANIMAL WELFARE FORUM (2011) Labelling food from farm animals. http://fawf.org.uk/sites/default/files/documents/FAWF_Labelling_Food_FINAL.pdf (accessed 7 Apr 2017).
- FRASER, D. (2008) Toward a global perspective on farm animal welfare. *Applied Animal Behaviour Science* **113**, 330–339
- FUCHS, D. & KALFAGIANNI, A. (2010) The causes and consequences of private food governance. *Business and Politics* **12**, 5
- GRETHE, H. (2007) High animal welfare standards in the EU and international trade – How to prevent potential ‘low animal welfare havens’? *Food Policy* **32**, 315–333
- HENSON, S. & HUMPHREY, J. (2010) Understanding the complexities of private standards in global agri-food chains as they impact developing countries. *Journal of Development Studies* **46**, 1628–1646
- HENSON, S. & REARDON, T. (2005) Private agri-food standards: Implications for food policy and the agri-food system. *Food Policy* **30**, 241–253
- HOFFMANN, I., BAUMUNG, R. & WANDRO, C. (2014) Survey on (private) voluntary standards in the livestock sector. In Voluntary standards for sustainable food systems: challenges and opportunities. A workshop of the FAO/UNEP Programme on Sustainable Food Systems. Food and Agricultural Organization, Rome, 11–12 June 2013, p127–142 www.fao.org/3/a-i3421e.pdf. Accessed June 8, 2016
- HOP, G. E., MOURITS, M. C. M., OUDE LANSINK, A. G. J. M. & SAATKAMP, H. W. (2014) Cross-border collaboration in the field of highly contagious livestock diseases: a general framework for policy support. *Transboundary and Emerging Diseases* **61**, 300–315

- HUBBARD, C., BOURLAKIS, M. & GARROD, G. (2007) Pig in the middle: farmers and the delivery of farm animal welfare standards. *British Food Journal* **109**, 919–930
- ISO (2010) *International Standards and "Private Standards"*. Geneva: International Organization for Standardization www.iso.org/iso/private_standards.pdf. Accessed June 8, 2016
- ISO (2016) International Organization for Standardization. www.iso.org/iso/home.htm. Accessed June 8, 2016
- KIRK-WILSON, R. (2002) Review of Food Assurance Schemes for the Food Standards Agency, June 2002. www.teagasc.ie/faol/NR/rdonlyres/CDCCE03B-3C84-4A05-8A59-D5423DACB4F5/57/UKreviewoffarmassurance.pdf. Accessed June 8, 2016
- LUNDMARK, E., BERG, C., SMID, O., BENDADI, D. & ROCKLINSBERG, H. (2014) Intentions and values in animal welfare legislation and standards. *Journal of Agricultural and Environmental Ethics* **27**, 991–1017
- LUNDMARK, E., RÖCKLINSBERG, H., WAHLBERG, B. & BERG, C. (2016) Content and structure of Swedish animal welfare legislation and private standards for dairy cattle. *Acta Agriculturae Scandinavica, Section A—Animal Science* **66**, 35–42
- MAHÉ, L.-P. (1997) Environment and quality standards in the WTO: New protectionism in agricultural trade? A European perspective. *European Review of Agricultural Economics* **24**, 480–503
- MAIN, D. C. J., MULLAN, S., ATKINSON, C., COOPER, M., WRATHALL, J. H. M. & BLOKHUIS, H. J. (2014) Best practice framework for animal welfare certification schemes. *Trends in Food Science and Technology* **37**, 127–136
- MATTLI, W. & BÜTHE, T. (2003) Setting international standards: technological rationality or primacy of power? *World Politics* **56**, 1–42
- MORELLI, J. (2011) Environmental sustainability: a definition for environmental professionals. *Journal of Environmental Sustainability* **1**, 1–10
- OIE (2008) *Resolution No. XXXII. Implications of Private Standards in International Trade of Animals and Animal Products*. Paris: World Organisation for Animal Health. www.oie.int/fileadmin/Home/eng/International_Standard_Setting/docs/pdf/en_resolution_20N_C2_B0_20XXXII.pdf. Accessed June 8, 2016
- OIE (2010a) *Resolution No. 26. Roles of Public and Private Standards in Animal Health and Animal Welfare*. Paris: World Organisation for Animal Health. www.oie.int/fileadmin/Home/eng/International_Standard_Setting/docs/pdf/A_RESO_2010_PS.pdf. Accessed June 8, 2016
- OIE (2010b) *Final Report – OIE questionnaire on private standards. World Organisation for Animal Health*. Paris: World Organisation for Animal Health. www.oie.int/fileadmin/Home/eng/International_Standard_Setting/docs/pdf/en_executive_20summary.pdf. Accessed June 8, 2016
- OIE (2015) *Animal welfare*. Paris: World Organisation for Animal Health. www.oie.int/fileadmin/Home/eng/Media_Center/docs/pdf/Fact_sheets/AW_EN.pdf. Accessed June 8, 2016
- OIE (2016) 4th Global Conference on Animal Welfare. 6–8 December 2016, Guadalajara, Mexico. <http://www.oie.int/eng/animal-welfare-conf2016/presrec.html>. Accessed January 14, 2017
- O'NEILL, K. (2005) How two cows make a crisis: U.S.-Canada trade relations and Mad Cow Disease. *American Review of Canadian Studies* **35**, 295–319
- PASTORE, A. (2014). FAO's strategic vision to engage with the private sector. In Voluntary standards for sustainable food systems: challenges and opportunities. A workshop of the FAO/UNEP Programme on Sustainable Food Systems, 11–12 June 2013, p105–119. Food and Agricultural Organization, Rome. <http://www.fao.org/3/a-i3421e.pdf>. Accessed June 8, 2016
- PERRONI, E. (2016) Sustainability slogans: genuine claims or food fraud? <http://sustainablefoodtrust.org/articles/sustainable-label-genuine-claims-or-food-fraud/>. Accessed September 1, 2016
- RAGAN, V., VROEGINDEWEY, G. & BABCOCK, S. (2013) International standards for brucellosis prevention and management. *Revue scientifique et technique (Office International des Epizooties)* **32**, 189–198
- ROBACH, M. (2010). Private sector perspective on private standards – some approaches that could help to reduce current and potential future conflicts between public and private standards. 78th General Session of the World Assembly of the OIE. Paris 23–28 May 2010.
- SANDØE, P. & SIMONSEN, H. B. (1992). Assessing animal welfare: where does science end and philosophy begin? *Animal Welfare* **1**, 257–267
- SCHMID, O. & KILCHSPERGER, R. (2010) *Overview of animal welfare standards and initiatives in selected EU and third countries. Deliverable No. 1.2 of EconWelfare Project*. Frick, Switzerland: Research Institute of Organic Agriculture (FiBL)
- THOMSON, G. R., LEYLAND, T. J. & DONALDSON, A. I. (2009) De-boned beef - An example of a commodity for which specific standards could be developed to ensure an appropriate level of protection for international trade. *Transboundary and Emerging Diseases* **56**, 9–17
- THORSTENSEN, V. H., WEISSINGER, R. & SUN, X. (2015) Private Standards —Implications for Trade, Development, and Governance. The E15 Initiative. International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, Geneva. <http://e15initiative.org/wp-content/uploads/2015/07/E15-Regulatory-Thorstensen-et-al.-final.pdf>. Accessed June 8, 2016
- VANHONACKER, F. & VERBEKE, W. (2014) Public and consumer policies for higher welfare food products: challenges and opportunities. *Journal of Agricultural and Environmental Ethics* **27**, 153–171
- VEISSIER, I., BUTTERWORTH, A., BOCK, B. & ROE, E. (2008) European approaches to ensure good animal welfare. *Applied Animal Behaviour Science* **113**, 279–297.
- WOLFE, C. & SCANNELL, M. (2008) *Implications of Private Standards in International Trade of Animals and Animal Products*. Paris: World Organisation for Animal Health. www.oie.int/fileadmin/Home/eng/International_Standard_Setting/docs/pdf/A_private_20standards.pdf. Accessed June 8, 2016
- WTO (2010) The WTO Agreements Series, Sanitary and Phytosanitary Measures. Revised in 2010. World Trade Organization, Geneva. ISBN 978-92-870-3803-6. www.wto.org/english/res_e/booksp_e/agrmtseries4_sps_e.pdf. Accessed June 8, 2016
- WTO (2014) *The WTO Agreements Series, Technical Barriers to Trade. Revised in 2014*. Geneva: World Trade Organization ISBN 978-92-870-3836-4. www.wto.org/english/res_e/publications_e/tbttrade_e.pdf. Accessed June 8, 2016
- ZEPEDA, C., SALMAN, M. & RUPPANNER, R. (2001) International trade, animal health and veterinary epidemiology: challenges and opportunities. *Preventive Veterinary Medicine* **48**, 261–271

Relevant EU legislation and documents

- Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves. *Official Journal of the European Union* L10, 7–13.
- Council Regulation (EC) No. 1099/2009 of 24 September 2009 on the protection of animals at the time of killing. *Official Journal of the European Union* L303, 1–30.
- Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents. *Official Journal of the European Union* L145, 43–48.



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