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# Livestock welfare product claims: The emerging social context

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**ABSTRACT:** An increasing number of product claims about food animal welfare or well-being have appeared in the global food industry and global market in recent years. These claims have significant consequences for producers, processors, transporters, retailers, consumers, and the animals themselves. Furthermore, recent restructuring of the global food industry has altered the power relationships of various actors.

Regulation of the industry is moving toward greater private control, and the power of retailers has dramatically increased. The changing structure of the industry carries implications both in terms of how standards are created and in terms of the types of standards themselves. The purpose of this article is to provide a greater understanding of how these product claims are made, their implications, and the challenges they present.

**Key words:** bioethics, label, trade

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## INTRODUCTION

Claims about the welfare or well-being of livestock from which food products are derived have proliferated over the last decade (Mench, 2003). The number and types of these claims are exceedingly diverse. Some claims make direct statements about animal welfare, and others describe the use of a production practice (such as “free range”) that may be associated with welfare by some consumers. Some claims are incorporated into product labels, whereas others are made in documents (such as Web pages or brochures) that describe the practices of a firm or industry group.

These claims should be seen as part of a larger trend in which the global food industry has begun to make statements about nutritional and health benefits, statements proclaiming conformity with organic (or comparable) standards, statements about environmental impact (e.g., “bird friendly”) or social impact (such as “fair trade”), and statements about the use or nonuse of contested technologies, including recombinant bovine somatotropin (“BST free”) and genetic engineering (“GMO free”). Some of these standards (e.g., nutritional content) are required by law, others are encouraged by institutional arrangements, and still others are designed to enhance sales growth.

The growth of these explicit and implied claims about the welfare of agricultural animals has significant positive and negative consequences for livestock producers, processors, transporters, and retailers, for food consumers, and for the animals themselves (Armstrong and Pajor, 2001; Blokhuis et al., 2003). On the one hand, such claims may facilitate consumer choice while giving producers new opportunities for product differentiation via animal welfare practices or other value-added production practices aimed at niche markets (Honeyman et al., 2006). Consumers who are willing to pay price premiums for products they believe achieve higher levels of care or welfare for production animals have created market opportunities for firms willing to develop such products (Nierenberg, 2005). On the other hand, the plethora of new claims and product standards of all kinds may simply confuse consumers and impose costs on producers while yielding little benefit of any kind (Thompson, 2002; Carlsson et al., 2003). Some have also expressed concern that the emergence of such product claims may dampen consumer acceptance of standard commodity products in the meat sector.

The purpose of this article is twofold. First, we seek to provide an orientation to how these product claims and animal welfare standards are being informed, shaped, and implemented, and the implications for producers of animal products, as well as for the animal scientists who work with them. Second, we examine several ways in which the proliferating animal welfare-related claims present both challenges to and opportunities for the producers of animal products and other

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industry actors, especially to the activities of scientists who work on animal industry topics.

## RESTRUCTURING OF GLOBAL AGRICULTURAL COMMERCE

Although final consumer behavior and attitudes toward these standards are important and do affect producers, both in the market and through political pressure, recent changes in the market power of retailers may pose a far greater challenge to American animal agriculture. These recent changes in the global super-market sector have dramatically increased the power of retailers to dictate production standards even though they lack the force of law. Furthermore, global food and agricultural trade is moving toward private regulation through systems of accreditation and third-party certification that, while informed and influenced by government policy, leave the direction of standards largely up to the private sector (Ménard and Valceschini, 2005). Animal welfare is already becoming integrated into this web of food standards and into both governmental and nongovernmental regulation and control. Whatever the advantages and disadvantages of the trend toward public-private standards and third-party certification, the proliferation of increasingly diverse, and not entirely consistent, standards that are derived from a variety of different authorities and perspectives (detailed later in this article) puts a range of uncoordinated pressures on producers and other actors in the meat sector. These pressures in turn stimulate calls to streamline and centralize the standard-setting process.

Within the United States there has been a significant increase in the concentration of processors and retailers. This creates high-profile entities that can be readily targeted by welfare advocates. Furthermore, the market power of large firms can cause a ripple effect throughout the industry when welfare standards are introduced. These changes in the market structure have permitted the emergence of several different types of livestock welfare-related actions. Below we discuss 3 types of these actions: the development of contracting relationships between suppliers and major retailers, especially chain food-service establishments, where the terms of the contract include animal welfare standards; the development of branded products that claim to embody welfare-related standards; and the initiation of new efforts to address animal welfare by producer organizations and major integrators. The growth of these nongovernmental approaches is associated with the increased willingness of retailers to specify criteria for welfare, among other process and product attributes, for products in their supply chains.

Currently, the European Union (EU) Welfare Quality project is in the process of developing harmonized voluntary animal welfare standards to be used both for domestic production and for international trade. These standards are expected to be implemented by the Comité Européen de Normalisation. [The Comité Européen

de Normalisation was founded in 1961 by the EU national standards bodies. It now supports the EU with voluntary technical standards. Comité Européen de Normalisation standards are found in virtually every sphere of economic activity within the EU (see <http://www.cenorm.be>; last accessed May 23, 2007)]. As such, they are likely to be required by virtually all large EU retailers. Although they will be officially voluntary [and hence permitted under the rules, and especially the Technical Barriers to Trade agreement, of the World Trade Organization (WTO)], they will be de facto mandatory for all EU countries and supplier nations to the EU. It is also important to note that the EU has a large research project (€17 million) underway, the goal of which is to provide evidence that can be used to define EU-wide animal welfare standards (EU, 2005; Roex and Miele, 2005). This EU project will inform the development of Comité Européen de Normalisation standards.

United States producers and processors exporting to the EU may find that they must use standards equivalent to those of the EU if they are to remain in that market. According to the USDA Foreign Agricultural Service, total US agricultural exports to the EU were approximately \$6 billion in 2004. United States exports to the EU in animals and animal products (\$594 million in 2004) accounted for roughly 10% of all US agricultural exports to the EU (ERS, 2005; FAS, 2005). That year, total EU agricultural imports accounted for roughly \$70 billion, meaning that the US share of EU agricultural imports was roughly 10%, whereas the US share of the EU market for animals and animal products, although significant in absolute size, was less than 1% of total EU imports in agriculture (EU, 2005). These figures suggest that the EU represents a significant market for US producers of animal products, although not large enough to dictate terms for US production standards across the board. At the same time, the US share of EU agricultural imports does not appear to be large enough to give US producers significant influence in standards development within the EU.

Moreover, given that no other similar animal welfare standard with the same broad geographic coverage exists, it is possible that many EU trading partners will adopt some version of the EU standards. This is especially true of middle-income nations that are large importers of US animal products. Although the WTO limits the ability of nations to impose such standards on imports, this restriction does not apply to retailers. When this is combined with the rapid growth of supermarkets in developing nations (Reardon et al., 2003; Weatherspoon and Reardon, 2003; Dries et al., 2004), including those owned by European firms (e.g., Royal Ahold, Carrefour), it is likely that US producers not producing to standards equivalent to those required by the EU will find those markets closed to them as well (Blandford et al., 2002).

## THE CONSTRUCTION OF STANDARDS

Animal welfare standards are currently often inconsistent, vague, and contradictory. Numerous global studies on food safety and marketing standards, however, have contributed to the development of an analytical framework for distinguishing among multiple types of standards currently operative in the food system, for identifying relative strengths and weaknesses of alternative approaches to standard setting and enforcement, and for helping various food system actors adapt to and benefit from standard-setting processes. The following are key elements of that framework:

1. The development of standards involves negotiation, but with a wide range of types and extents. The negotiations include negotiations with respect to the definition of the standard as well as those related to enforcement in particular cases. Who sits at the table when standards are negotiated is of considerable consequence as, quite obviously, those not at the table are unlikely to be heard (Stone, 2001).
2. Standards have both strategic and tactical implications for all actors in the supply chain. They determine who gets access to a given market, and may even define the very market itself. They also affect market outcomes. This aspect might best be phrased as a question: Who wins and who loses? Of considerable import is that the winners and losers need not be limited to those directly affected by the standard. For example, an animal welfare standard could affect labor markets or even environmental aspects of animal production (Bain et al., 2005; Bingen and Busch, 2005).
3. Standards also have an ethical dimension. Three ethical questions may be posed of standards: How should animal scientists and economists weigh the costs or risks against the benefits of a given technology in attempting to determine how a standard should be formulated? But a second ethical question to be posed is, Whose rights will be supported or weakened by the standard? Do food consumers have the right to access products that conform to their personal ethical standards? Finally, there are questions about conduct. For example, standards that are difficult to measure may encourage dishonest behavior (Busch, 2000; Thompson, 2000; Busch, 2004; Bain et al., 2005; Bingen and Busch, 2005). [A lengthy list of references to recent work connected to food and agricultural standards can be found on the Institute for Food and Agricultural Standards Web site at <http://ifas.msu.edu/publications.htm> (last accessed May 23, 2007)]. Is the conduct of producer certifiers and other firms ethical?
4. A final aspect of standards is enforcement. Recent studies suggest that as private standards proliferate, enforcement itself becomes the subject of

standards (Ménard and Valceschini, 2005). Third-party certification (i.e., enforcement by an organization that is neither buyer nor seller and is therefore presumed to be objective) has emerged as a significant trend across standards of all kinds (Hatanaka et al., 2005). Such certifiers have differential scientific competencies and often perform their tasks differently. Although such audits have limits (Bain and Busch, 2005), inclusion of information on third-party certification in the database should prove helpful to various users.

## COMPETING AND COMPLEMENTARY PRODUCT CLAIMS: A TYPOLOGY

Claims may be positive or negative. A positive claim asserts that animals achieve a given state of welfare (e.g., "contented cows") or receive a given standard of care intended to ensure welfare (e.g., free-range poultry). Positive claims include those that provide indicators about facilities (e.g., space per animal), production processes (e.g., humane slaughtering), and the animals themselves (e.g., stress levels). A negative claim simply asserts that an animal was spared some putative harm (e.g., recombinant bovine somatotropin-free milk). Some advertising language may evoke attractive or appealing images without implying an empirical claim about the products or methods of production, but here we focus on claims that are intended in some way to represent the welfare of animals used to produce the products in question.

Many scientific findings are relevant to the welfare of animals within an animal production system (Dawkins, 2004; De Passille et al., 2005; Pajor, 2005). Standards differ in the extent to which they are based on generally accepted science. There are distinct differences between claims that are science based, and have exact specifications that provide both a rationale for the standard and a set of tests to determine whether standards are met, and claims that have or assert little scientific basis or do not specify scientifically testable criteria. There are also a number of models for integrating science into a set of welfare standards (Krebs et al., 2001; Leeb et al., 2001; Klaas et al., 2003; Sandøe et al., 2003). Standards may draw selectively from this scientific literature to support a particular design or production practice. There is also a middle ground between the antipodes of this distinction: standards that are established by advisory boards consisting of recognized scientific experts. Such boards provide some degree of scientific basis, yet the specifications and tests that support the standard may be less than exact. It should be noted as well that although not all claims are necessarily scientific in nature, all the claims we found made at least implicit links to a scientific basis. In essence, everyone loves science (or at least everyone hopes to associate product claims with their scientific basis). We have made no attempt to evaluate the validity of alleged scientific bases for standards.

The middle-ground approach, in which organizations convene expert panels to weigh the relevance of sources in the scientific literature and offer advice on standards or certification methods, provides a way to resolve potential conflicts in the scientific literature, and also provides some flexibility in the standards that will be applied in diverse production settings. Instead of saying that a standard reflects a specific research finding, such welfare claims assert that the standard reflects the judgment of the expert panel. For example, Perdue Farms Incorporated states that it abides by “scientifically sound” guidelines based on principles from the American Humane Association and the National Chicken Council (Perdue, 2006). Veterinarians, outside experts, and Poultry Welfare Officers from the Poultry Welfare Council sign off on the welfare of Perdue’s birds (Perdue, 2005). Both drawing selectively from scientific literature and convening expert panels can be flexibly applied. Value judgments concerning the relative importance of one welfare indicator over another (e.g., behavioral vs. physiological) or concerning the relative importance of maintaining profitability in certain producer groups (e.g., small vs. large, independent vs. contractor, regional groups) may influence the way that science is used in developing welfare standards (Fraser, 2003; Thompson, 2004). Given the multiplicity of methods for basing standards on science, it is not surprising that the practice of asserting a scientific basis does not lead to uniformity in standards and claims. The opportunity to draw selectively on published literature or to select the experts on panels can create a situation in which apparently inconsistent standards each claim to have scientific support.

Product claims and standards on the welfare of livestock species of interest are being made by a variety of producer or industry organizations, government bodies, civil society organizations, and for-profit firms or farms. The implementation of these standards by retailers imposes a series of tests, or trials, on the acceptance of a product in a particular market. Busch and Tanaka (1996) observed 4 distinct types of standards: Olympic, filters, ranks, and divisions, illustrated here by familiar non-welfare-oriented standards. Olympic standards deliver a single winner in the process of selection (e.g., the top prize-winning steer at the state fair); filters seek to separate “good” products for purchase from those of an unacceptable grade (e.g., antemortem and postmortem inspection); ranks classify a series of products into an order from good to bad [e.g., the USDA (2005) grading system]; and divisions simply provide categories that differentiate product characteristics, which do not necessarily imply a superior or inferior quality (e.g., veal vs. beef). These different types of standards create opportunities for different strategies and for various actors to promote a particular view of animal welfare. For example, one can imagine Olympic-style claims asserting the highest possible welfare, or division-type standards that would distinguish between welfare standards oriented to animals’ behavioral drives and those

oriented to physiology or health (without necessarily implying a rank ordering). However, almost all animal welfare standards in the US market at the moment operate as filters; they separate products into those that meet animal welfare standards and those that do not. [One partial exception is the judging of animal welfare in National FFA Organization (Indianapolis, IN) competitions, which does result in rankings. To our knowledge, however, these rankings have not yet been integrated into the market for the meat or animal products].

In addition to this matrix of food standard types, standards can be classified according to the type of actor that undertakes the development of standards. For example, governmental, civil society, and private industry organizations are all active in developing standards for animal welfare-related commerce. The nature of the standards as well as the relationships among producers, retailers, middlemen, and consumers can be strongly influenced by incentives and attitudes that correlate to these roles. The following are examples of claims made by each of these different types of organizations.

### *Retailer Standards*

Many for-profit firms that deal in the production or sale of meat establish and advertise their own guidelines and standards for animal welfare. Many restaurants that do not own or operate farms or processing facilities nevertheless set guidelines for their suppliers. One such example is McDonald’s Corporation, which has established a specific set of guiding principles to which suppliers are required to adhere. This set of guidelines is reviewed and monitored by an independent panel of experts that McDonald’s calls its Animal Welfare Council (McDonald’s, 2006).

### *Producer Standards*

Niman Ranch, a producer of meat products, publishes specific and detailed policies for how its animals are raised and cared for that go beyond the more general claims made by McDonald’s. The Niman standard approximates an Olympic standard in that it requires a characteristic or quality that purports to be the best available. Whereas restaurant chains such as McDonald’s seek to allay consumer concerns, firms such as Niman state as their specific mission to promote the highest quality product through the development and application of humane animal welfare practices (AWI, 2005; Niman Ranch, 2005). The company is using a standard that characterizes its product as being substantively different from and superior to all competing products. Although those at Niman would hold that the company’s product is superior, the standard is simply incorporating animal welfare claims as one attribute (among many) of its product that suggests higher quality. As such, it is possible to argue that the Niman Ranch approach is not a true Olympic standard. BC

Natural Chicken (producers of Amish Select brand chickens) also makes strong claims about producing chicken that is antibiotic free. This type of claim is substantively different from those of Perdue and Niman. BC Natural Chicken asserts that the need for antibiotics in poultry production is caused by the industrial production model used by larger producers, which does not afford the birds the proper amount of space, increasing the prevalence of disease. BC Natural Chicken, by contrast, claims its chickens have “ample room.” This is a division standard, rather than an Olympic or filter standard. It is also a subjective rather than a scientific claim. There is an implication that its treatment of birds is more humane because there is no need to use antibiotics to keep them healthy, but the specifics of animal welfare are not detailed, and the claim makes no mention of adherence to any other specific guidelines or third-party review (BC Natural Chicken, 2005). Like Niman, however, BC Natural Chicken relies on product differentiation and division to capture its niche market.

### *Government Standards*

The USDA recently implemented criteria for labeling food products as organic. Although few provisions of the organic standard are directly related to animal welfare, the organic marketing rules provide a model for government standard setting that diverges from typical approaches to animal health or environmental impact. This type of standard is a certification that allows producers to label and market their products as following a set of guidelines that go beyond the minimum qualifications of what is legal, and involves certification from authorized third parties such as the Organic Trade Association (OTA, 2005), which certifies that producers or processors are in compliance with established government regulations. The National Organic Program (NOP) is the authorized enforcement agency of the USDA that ensures compliance with the standards set by the Organic Foods Production Act (1990). The specification of “USDA Certified Organic” in the NOP consolidated and resolved a number of competing claims regarding what it means to be “organic.” Some producers who had access to consumers seeking organic products could no longer make such a claim. The NOP can be interpreted as a division standard, implying no relative quality difference between organic and nonorganic products. Within the domain of organic production, however, it functions as a filter, specifying the minimum criteria that must be met by products marketed under the USDA Certified Organic label.

### *Civil Society Standards*

Humane Farm Animal Care is a nonprofit organization that has developed a number of standards for animal welfare as well as a label, “Certified Humane.” These are filter standards in that they establish the minimum criteria needed for products to bear the Certi-

fied Humane label. These standards are developed under the advice of a scientific advisory board. Producers may apply for certification from Humane Farm Animal Care, and a list of producers currently certified by the organization is available. According to its Web site, Humane Farm Animal Care is itself supported by other civil society groups, including the Humane Society of the United States, and the American Society for the Protection of Animals (Humane Farm Animal Care, 2007).

## FUTURE TRENDS

Several key issues need to be addressed in future discussions of animal welfare standards. First, it is possible to interpret the current emphasis on animal welfare quality and standards in 2 distinct, but not mutually exclusive, ways: as part of the animal protection movement, or as part of broader structural changes in the food industry as a whole. Actors in the animal protection movement may indeed seek to use animal welfare standards to further their substantive and organizational agendas. However, there is ample evidence in support of the claim that this issue is deeply connected to a far broader restructuring of relationships within the overall economy, the food and agricultural sector, and the animal agricultural subsector. This restructuring includes a shift of power from upstream producers to downstream retailers, the dynamics of competition among large retailers that emphasize perceived quality rather than price to consumers (the industry and farmers are expected to absorb most or all increased costs of production or processing), and the increasing prominence of secondary attributes (e.g., production and exchange processes) in consumer demand (Thompson, 2001).

Second, greater exploration into the roles that science can play in informing animal welfare standards is needed. Can meaningful standards be built by combining veterinary health and production-based indicators as well as more qualitative and subjective indicators based on mental health, well-being, and human emotion? What are the policy implications of such a distinction? Which of the groups that are implicated in the animal industries sector would have interests that benefit from or are disadvantaged by different uses of science? As noted above, appeals to science as the basis for animal welfare standards are virtually ubiquitous, even if the appeal is implicit in some cases. Yet there does not appear to be a consensus on the underlying logic of this basis, and no studies indicate how alternative ways of using science in standard setting or enforcement would affect production practices or animal welfare itself.

Last, what could be the roles of government in constructing and unifying such standards and product claims vs. purely private-sector claims? Should the federal government act preemptively or nonpreemptively, or should the federal government leave this area to

diverse state actions? Under any of those options, should government establish a guideline or minimum standard, or should government establish an absolute standard (e.g., the organic label)? Which of the groups that are implicated in the animal industries sector would have interests that benefit from or are disadvantaged by the different roles of government? This final set of questions frames an important set of challenges for scientists, interest groups, and producers alike.

The structure of international trade agreements suggests difficulty in the desire of governments to impose baseline animal welfare standards. To pass the WTO review, a regulation must pass 3 tests—a legitimate purpose, a feasible and effective method, and the least trade disrupting. Any proposed regulation would have to satisfy those 3 criteria. Potentially the most difficult one with animal welfare standards is the first: What legitimate interest does one country have in the welfare of farm animals in another country? Those baseline standards can create a social environment that encourages retailers to impose stricter guidelines of welfare quality on their producers to compete for consumers, which may have the impact of pushing scientific indicators to the side in favor of images that merely play to the emotions of consumers while also escaping the confines of international trade imperatives, which demand sound scientific bases for public standards that restrict free trade and access to markets.

The uncertainty associated with evolving standards can produce economic challenges for producers. Uncertainty exists even when standards are voluntary, because as the above discussion demonstrates, access to markets and to some contracting opportunities can be contingent on the ability to meet standards established by trade associations, retailers, or foreign entities. Some standards, such as animal housing, would require major physical changes to facilities. For example, Smithfield Foods Inc. recently imposed a ban on the use of gestation crates by their producers (Kaufman, 2007). Although the ban offers producers 10 yr to become compliant, planning for facilities construction demonstrates the added economic risk to producers that the introduction of these new standards can create. What is more, such standards have the potential to trigger the need for adjustments in genetics, if, for example, breeds used in current settings were behaviorally inappropriate for group housing. Most standards will cause the need for adjustments in record keeping and husbandry, creating the need for follow-on adjustments in employee training and evaluation.

As stated before, these diverse elements of standards create both problems and opportunities. Diversity in standards embodied in products that are available through the marketplace allows some segments of consumers to have a direct voice in determining which values they would like to see applied in standards development. However, conflicting claims can undercut public confidence in the ability of science to inform standards development and improve animal welfare. Al-

though there may be no perfect solution to this problem, previous research on other food-system controversies indicates 2 important ways to increase general understanding and minimize the damage that conflicting claims may do to public trust in animal agriculture. The first is a need for transparency in the way that science is used in the development of standards. Second is an acknowledgment of what science can and cannot do to resolve controversial questions (Kunkel et al., 1998; Thompson, 1999, 2003). The accomplishment of these 2 goals can be fostered by greater emphasis in the animal sciences on developing ways to classify and report exactly *how* (e.g., advisory panel vs. citations to published work) and, to the extent possible, *which* (e.g., what studies are applied) science is used (if any) in developing the standards for product claims about animal welfare.

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