

## Consumer perception and communication on welfare in organic laying hen farming

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### Abstract

*A major reason for increased societal popularity of organic production systems is the growing general discontent with intensive farming practices. However, urbanization leads to limited knowledge of farming and farm animal welfare. Consumers believe organic farming leads to better animal welfare, although most health and welfare issues seen in conventional systems are also found in organic poultry systems. The majority of consumers do not translate attitude and good intention into action, the actual purchase of organic products. Understanding this intention-behaviour gap may lead to increased sales of organic products. Effective communication and education can create trust, added additional values and credibility, and may lead to structured perceptions, convictions, values, norms, knowledge and interests and lead to better understanding of organic farming and farm animal welfare. Merchandising strategies can reduce barriers the consumer may encounter at the moment of decision making.*

### Organic egg production

Besides environmental awareness of farmers, the growing general discontent of consumers with conventional intensive farming practices is a major reason for increased societal popularity of organic production systems (Zeltner and Maurer, 2009). This growth of increased societal popularity can also be seen in organic egg production. Organic egg production generally accounts only for a relatively low proportion of overall egg production, but has substantially increased in the last years and already gained considerable significance in some European countries. For instance, between 1997 and 2004 organic poultry productions in Belgium showed 76,8% growth, thereby being one of the fastest growing organic sectors in the EU (Oliver et al., 2009; Pyfferoen et al., 2011). Still only 5,4% of all laying hen farms in Belgium were registered as organic laying hen farm in 2004. Halfway 2011 this number had more than doubled, listing 13,8% of all registered farms as organic. Nevertheless, only 2,4% of all registered hen places were registered as organic egg production (Pyfferoen et al., 2011). Organic egg production standards require free range systems of non beak-trimmed birds that allow outdoor access and lower stocking densities, preferential use of preventive measures against diseases and alternative treatment methods, and from 2012 onwards a 100% organic diet. These guidelines may be beneficial for various aspects of the welfare of the hens, on the other hand it may also expose the birds to various stressors or risks that may aggravate certain welfare problems (Zeltner and Maurer, 2009). Hen welfare is influenced by multiple animal-based factors such as disease, pest and parasite load, skeletal and foot health, inappropriate behaviour, stress, affective states, and genetics (Lay et al., 2011). Hen welfare is also influenced by environment-based factors such as management and housing system (e.g. group size, litter area, perch availability, nest availability and feeding) (Shimmura et al., 2011). Berg (2002) concluded in a review that most of the health and welfare issues seen in conventional free-range and loose housed systems are also found in organic poultry systems. The outdoor access exposes the birds to an increased risk of viral, bacterial and parasitic infections that not only pose a threat to the health and welfare of the birds, but may also be a zoonotic danger for food safety (e.g. *Campylobacter spp.* and *Salmonella spp.*) (Kijlstra and Eijck, 2006). Uneven and infrequent use of the outdoor pasture indicates that the environment provided is often not preferred habitat (Dawkins et al., 2003). For example, birds may not feel safe in the unroofed area of the outdoor pasture. Cover, trees, hedges and other structuring elements may increase use of the outdoor pasture and reduce mortality due to predation as well as decrease risk of feather pecking behaviour (Bestman and Wagenaar, 2003). Beak trimming is not allowed in organic farming and

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therefore feather pecking remains a severe problem on organic laying hen farms (Berg, 2002; Bestman and Wagenaar, 2003; Nicol et al., 2003).

### **Consumer concern and product perception**

Consumers are concerned about animal welfare and farming standards as they often equate good animal welfare standards with high food quality standards (Harper and Henson, 2001). Evidence for increased interest in good animal welfare standards is the increasing demand for 'animal friendly' products, such as free-range eggs. Consequently, society shows an increase of product awareness in decision making when buying food products as consumers. For the livestock production sector this growing awareness is based on natural, ecological and socio-cultural aspects and perceptions when considering buying livestock products (Vanhonacker et al., 2008). Besides the important role of environmental issues and animal welfare, also creating more affinity towards organic products by social issues such as supporting local farmers and societal initiatives contribute to additional value and closer connection to organic products (Zander and Hamm, 2008). Consumers general perception of organic farming consists of the assumption that this farming practice should enhance food safety, be sustainable with low environmental impact, offers outdoor access for the animals and contributes to better animal welfare (Crandall et al., 2009; Hermansen, 2003). Te Velde et al. (2002) describes how generally perceptions are formed and influenced by convictions (opinions about the way things are), values (how things should be), norms (how things should be treated according to the values), knowledge (formed by what is known, experiences, facts, stories, and impressions) and interests (economic, social, moral, health). However, the consumers' knowledge of farming in general and the circumstances in which livestock are reared is much more limited due to urbanization and increasing dissociation from the farming practices. (Te Velde et al., 2002) This leads to vague concepts and perceptions of organic farming and farm animal welfare, and are strongly influenced by biased media coverage (Vanhonacker et al., 2008). The lack of belief in the ability of the consumer to make a difference when choosing for organic product is another barrier to buy organic products (Harper and Henson, 2001). Although most consumers claim to be concerned about animal welfare, the vast majority does not translate this opinion in actually consequently buying organic or animal-friendly products. Carrington et al. (2010) describes how from 30% of the consumers state they intent to purchase ethical products (e.g. organic products) only 3% actually do buy ethically. This is also known as the intention-behaviour gap (Vermeir and Verbeke 2006).

### **Consumer behavioural control and intention - behaviour**

The theory of planned behaviour (TPB) is an accepted concept or theory that describes how behaviour can be predicted through conceptualizing, measuring and identifying factors that determine behaviour and intention (Ajzen 1991; Vermeir and Verbeke 2008). This concept may explain why consumers with a specific mind set (e.g. I want to buy organic products because they offer better animal welfare) do or do not follow through with their intentions at the actual moment of purchase. The intention-behaviour gap is influenced by several factors that are also found in the TPB. Disparity between purchase intention and actual behaviour can be explained by i. implementation intentions, ii. actual behavioural control (ABC), and iii. situational context (Carrington et al. 2010). A consumers attitude does not necessarily lead to intentions. In its turn the purchase intentions does not automatically translate into purchase behaviour. The implementation intention specifies the plan to put this intention into action and is developed prior to the actual behaviour of purchase. When attitude is translated into intention, the purchase-intention and actual buying behaviour is influenced by environmental factors. These environmental factors are the individuals' interactions with the physical and social environment. The actual behavioural control is influenced by internal and external factors to either facilitate or inhibit the ability to perform the intended behaviour. The situational context explains how the consumer actual behaviour is under influence of encounters with an environment with external influencing factors. Such external factors can be unpredictable situations (e.g. sales of non-organic products), temporarily situations (e.g. product sold out), a moment in time, or a physical and social environment (e.g. the shopping mall). These factors may either facilitate or block the translation of intentions into behaviour (Carrington et al. 2010).

### **Consumer communication**

When consumers trust the story behind organic farming and embrace the holistic approach of organic farming, the willingness to pay more will become stronger. This trust can be created by good communication strategies. The extent to which consumers believe that their personal efforts contribute to their ethical intention is defined as the perceived consumer effectiveness (Vermeir and Verbeke 2006). The TPB can provide a framework for conceptualizing and identifying factors that determine behaviour and behavioural intention. Thereby creating the opportunity to a systematic approach for information campaign development and communication strategies (Vermeir and Verbeke 2006). High credibility and reliability of organic farming can be formed by proof and certification of bodies such as consumer organizations, environmental organizations and certification of the organic producers and its products. Knowledge of the different consumer groups and profiling the consumers may provide tools on who and how to inform and convince the consumer (Vanhonacker and Verbeke, 2009; Zander and Hamm, 2008). Communicating strategies about animal welfare to construct a representative perception of organic farming should take into account the consumers' limited knowledge of farming. Therefore scientific definitions and research based findings should be translated in popular definitions (definable, recognizable, and explicit) when communicated to the public. Communication in an educational way will support constructive public debates (Vanhonacker et al., 2012). Effective communication and education, trust, additional values and credibility may reduce the earlier mentioned vagueness on which current perceptions, convictions, values, norms, knowledge and interests are based on and lead to better understanding of organic farming and farm animal welfare.

## **Discussion**

Kijlstra et al. (2009) reviewed how information about organic food production is provided to the general public by both governmental bodies and nongovernmental organizations (NGO's). However, NGO's tend not to address public health problems and animal welfare issues associated with outdoor organic food production, either by not mentioning the issue or by disputing its validity. This emphasizes that honest and trustworthy communication may create ethically minded attitudes that might be translated into intentions. The formation of trust, added additional values and credibility, and structured perceptions, convictions, values, norms, knowledge and interests can lead to better understanding of organic farming and farm animal welfare. Understanding the TPB may decrease the intention-behaviour gap. Negative influences of the SC are often unforeseen and therefore difficult to shield off from consumers. However, well tactical merchandising strategies might decrease some of the influences.

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