An industry viewpoint on the role of farm assurance in delivering food safety to the consumer: The case of the dairy sector of England and Wales

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ABSTRACT

Food safety, alongside food quality, remains a primary concern of both consumers and those along the whole food supply chain, leading to regulation by government alongside private third party certification. Much has been written about the value of these systems primarily from the perception of the consumer. This paper reports on a study that examined industry perceptions on the regulatory and assurance systems within the dairy sector of England and Wales. It found that the primary producer found value in both systems, although from a food hygiene focus regulation was seen to be more rigorous. Other stakeholders along the dairy food supply chain saw the assurance scheme as more rigorous. All stakeholders recognised the need to reduce duplication in delivering food safety through combining key elements of both systems with the added potential for better communication of both food safety and quality to the final consumer.

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Introduction

Rising global incomes and assured food supplies, at least within developed economies, have led to consumers demanding 'to know how food is produced and be assured of its safety and quality' (Fulponi, 2006, p. 2; also Papadopoulos et al., 2012). Food safety is one of many desirable food product attributes and can be defined as assurance that food will not cause harm when prepared and eaten. Food safety is associated with food hygiene whereby all conditions and measures necessary to ensure the safety of food at all stages of the food chain are met (Orriss, 1999). Valeeva et al. (2007) emphasise the importance of improving food safety throughout the entire food chain with individual chain participants increasingly looking for assurances of the safety of the products supplied from preceding participants in that chain (Henson and Holt, 2000; Valeeva et al., 2004, 2005). Linked to this is the broader issue of guaranteeing food quality which encompasses both food safety and other quality aspects which the consumer may desire (Noordhuizen and Metz, 2005).

The question then arises as to how to inform consumers and those within the supply chain of the safety and quality of the food in question, particularly when these attributes are not always easy to detect. Two broad approaches have evolved as discussed in detail below, one voluntary and led by the food industry through assurance schemes, the other based on legislation designed to protect consumers and public health. Both operate in parallel in the UK dairy sector, each involving routine visits to and inspections of farms and hence considerable cost to the industry and government. In an era when government is being challenged to be more efficient and, where appropriate, to reduce and simplify the regulatory 'burden' on industry (Peck et al., 2012), it is relevant to explore whether elements of the two approaches can be combined to provide effective and efficient assurance of food safety.

This has led to a wide range of food safety control systems, including direct regulation in the form of standards and inspection, and various forms of certification by third parties (Henson and Caswell, 1999; Rouviere and Caswell, 2012). Third party certification, also referred to as assurance, is a response to consumer concerns regarding the nature of food production (Morris and Young, 2000) primarily as a result of both the disconnection of consumers from modern food production (Eden et al., 2008a, 2008b) and also recent food scares which 'have contributed to a decline in the public's confidence of regulatory agencies to deal with these food and agricultural safety issues' (Fulponi, 2006, p. 2; also Papadopoulos et al., 2012) and undermined trust in the safety of food (see, for examples, Houghton et al., 2008). This failure of (government) regulation to provide credible signals (Cope et al., 2010; Northern, 2001) has augmented the need for other forms of assurance (see for example, Holleran et al., 1999; Morris and Young, 2000; Northern, 2001; Noordhuizen and Metz, 2005; Trienekens and Zuurbier, 2008;

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Valeeva et al., 2006, 2007). Voluntary assurance, alongside regulation, has thus been established to guarantee to consumers that food is safe (Gellynck et al., 2006; Mensah and Julien, 2011) and third party certification bodies play an important role in food safety reinforcing the regulatory position (Tanner, 2000). As with food safety, it is not easy to define and detect quality throughout the sometimes long and complex food supply chain (Morris and Young, 2000). Nevertheless, private food safety and quality standards, driven by both regulatory requirements and consumer concerns about food safety (Henson and Reardon, 2005), are important in maintaining and improving reputation (Fulponi, 2006) with the emphasis not only on safety, but also linked to the quality and the traceability of food production (Trienekens and Zuurbier, 2008).

Food safety is an issue for which regulatory authorities in almost any country adopt a formal responsibility (Jouve, 1998; Mossel, 1995). Internationally, the Codex Alimentarius is a collection of recognised standards, codes of practice, guidelines and other recommendations relating to foods, food production and food safety (Hatanaka et al., 2005) developed and maintained by a Commission established by the Food and Agriculture Organization and the World Health Organization.

Within Europe, the 1989 Official Control of Foodstuffs Directive provided for consistent food inspection procedures and standards across European Union (EU) Member States (Mossel, 1995). This Directive was implemented across the whole of the United Kingdom (UK) through the 1990 Food Safety Act. The 2002 General Food Law Regulation and subsequent EU Hygiene Regulations have replaced these directives and outline the principles and obligations covering all stages of food production and distribution, emphasising the need to monitor farms for food safety and public health, encompassing the production process as well as the food product itself. The regulations were implemented by the devolved administrations within the UK through the separate national 2006 Food Hygiene Regulations. The overriding policy within Europe was to prioritise consumer protection. The requirements within this legislation include the need for food businesses to take a structured approach to food hygiene based upon Hazard Analysis Critical Control Points (HACCP) principles. Although HACCP principles are not yet required for farms, the regulations indicate they are likely to be required in the future. Within the UK the responsibility for the implementation of the hygiene legislation has been assigned to the Food Standards Agency (FSA) which has responsibility for consumer protection along with other food related interests.

Since the 1990 Food Safety Act, the product liability for food products in the UK has hinged on the concept of and ability to demonstrate 'due diligence' (Henson and Caswell, 1999; Morris and Young, 2000; Northern, 2001). 'Suppliers must demonstrate that they have done all that is reasonably possible to ensure that the food that they handle and any food obtained from upstream suppliers conforms with statutory food safety standards' (Henson and Holt, 2000, p. 409; also Karipidis et al., 2009). In order to prove that they have exercised 'due diligence', companies use private quality control based predominantly on third party certification (Henson and Caswell, 1999) to mitigate against commercial risk (Henson and Reardon, 2005; Karipidis et al., 2009). Third party certification reflects the broader shift from public to private governance (Albermeier et al., 2009; Fares and Rouviere, 2010; Hatanaka et al., 2005). Its appeal is based upon 'independence, objectivity and transparency in an attempt to increase trust and legitimacy among ... customers and to limit liability' (Hatanaka et al., 2005, p. 355) and it is crucial for providing information to stakeholders regarding attributes that concern them alongside an effective enforcement mechanism.

The assurance schemes in place vary, covering a combination of both objective assessment and subjective judgement. A key feature is achieving certification based upon published standards which require or encourage desirable, and simultaneously ban undesirable, practices. To achieve this there is a process of verification. 'Verification processes are argued to make food supply chains legible, traceable, and perhaps less risky' (Guthman, 2004, p. 512). Verification can be first party through self-auditing, second party through checking by a trade association or similar body closely related to the manufacturer/retailer, or third party through checking by a body independent of the manufacturer/retailer. Third party verification is generally considered to be the strongest and least susceptible to conflicts of interest (Eden et al., 2008b; Hatanaka et al., 2005; Jahn et al., 2005) as third parties themselves are checked by an accreditation body. In the UK this is through the UK Accreditation Service (UKAS) to the EN45011 standard on behalf of UK government.

The schemes, implemented in response to consumer, retailer and industry concerns, are designed to convey food safety based upon a set of standards and inspection regime. However, they may also convey other attributes demanded by consumers, such as origin, animal welfare, production method, environmental benefit (Henson and Caswell, 1999) and to some extent private standards have evolved to differentiate products to gain a marketing advantage (Henson and Reardon, 2005). It is thus not surprising that a large number of schemes are maintained by or coordinated in partnership with the large retail food chains. For producers who supply a retailer, Henson and Caswell (1999) and Henson and Northern (1998) suggest that the schemes are seen as a vehicle for building trust and reputation around the visible symbol of a brand name and label to make the standards seem credible to consumers, and as conveying welfare and other attributes, rather than addressing concerns about food safety *per se*. Governments set minimum quality standards, global retailers set a higher quality to maintain reputation, customer loyalty, and to cut across national boundaries and, in doing so, the retailer is translating consumer demands and expectations back up the food chain to suppliers through imposing quality and safety management standards in terms of both food production and distribution processes (Fulponi, 2006; Herzfeld et al., 2011; Northern, 2001). An element of this is on efficiency gains with both price and purchase itself being dependent on predefined quality specifications with limited room for negotiation (Gellynck et al., 2006). The domination of the UK retail food market by a relatively small number of supermarket chains has allowed this to happen; with relatively few alternatives for suppliers of food, supermarkets can impose requirements very effectively (Northern, 2001). For farming businesses, industry led assurance schemes, in collaboration with the retail sector, have been in place since the early 1990s in the UK (Henson and Caswell, 1999). Their basis is a set of written standards developed by the farming community, retailers and other interested parties. The standards are national in scope and tend to be species or product specific to meet processor and/or retailer requirements. The emphasis is on consistency of production practices, encompassing management systems and husbandry techniques (Morris and Young, 2000) and they share two common features, a reliance on documentation of production processes and practices and third party auditing and certification (Holleran et al., 1999).

The National Consumer Council (2001, p.24) has criticised assurance schemes for 'failing to offer any more than the legal minimum by way of production standards', a criticism echoed by others (e.g. Morris and Young, 2004). A further criticism is that the standards in place are not necessarily communicated to the final consumer (Northern, 2001). Although research by the FSA suggests that the majority of consumers are aware of and understand assurance (Food Standards Agency, 2006), Eden et al. (2008a, 2008b) found that there is limited awareness and understanding. According to Eden et al. (2008b) consumers assume that the legal minimum should be the role of government and that all food is