

The Significance of Food Assurance Schemes in the UK, Requirements for Food Safety and Their Credibility, Part 1

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Abstract: This research examines the significance of Assured Food Standards (AFS) in the UK. The main aim of this research is to make clear the requirements that food assurance schemes have to fulfil in order to ensure adequate food safety, consumers' trust and transparency of the schemes.

The Assured Foods Standards (AFS) schemes have the following usefulness: First, all schemes within AFS are inspected by an independent inspection body. Every step in the whole food chain from farming, processing, storage, transporting to packing is inspected by independent inspectors. Second, the AFS schemes and inspection bodies are accredited by UKAS. UKAS accredits that an inspection body is truly independent from any influence from the food assurance schemes or farmers and that independent inspectors are sufficiently experienced. Third, many AFS schemes require "strongly recommended levels" in food safety and animal health, which are much higher than the legal minimum. Fourth, concerning traceability, some schemes (beef, milk and dairy, pigs, and chicken schemes) have traceability systems in feedstuffs, medical treatment records, and cattle and flock movements. These schemes require detailed record-keeping procedures for traceability systems.

The AFS schemes, however, need to be improved in the following points: First, the AFS must explain at what points their standards exceed the legal minimum, Second, some AFS schemes do not explain their traceability requirements in detail.

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* This issue includes only the Introduction and Sections 1 through 6. The part 2 will be printed in the next issue, 'Ritsumeikan Social Science Review' Vol. 42. No. 2.

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Introduction

This research examines the significance of Assured Food Standards (AFS), which is the biggest food assurance scheme in the UK. The main aim of this research is to make clear the requirements that food assurance schemes have to fulfil in order to ensure adequate food safety, consumers' trust and transparency of the schemes. In the UK, a variety of food assurance schemes cover 85% of UK production in the milk, eggs, chicken, pig, and combinable crop sectors. More than 65% of beef and lamb and horticultural products are covered by food assurance schemes. Generally, food assurance schemes, except for organic schemes¹⁾, set out their own standards in food safety, environmental protection, and animal welfare. Member farmers and producers in assurance schemes declare that their food conforms to scheme standards.

Assured Food Standards involves the largest number of farmers and producers in the UK. AFS is also referred to as Red Tractor, because it uses a "Red Tractor" logo on its produce. This paper analyses how AFS secures food safety and consumer-side credibility. The consideration focuses on the following points: First, the main structure of AFS will be analysed. How does AFS ensure independent inspections? How does AFS supervise each of the assurance schemes within its umbrella? Second, the role of third party inspections and accreditation by United Kingdom Accreditation Service (UKAS) will be examined. UKAS is a governmental accreditation organisation responsible for auditing inspection bodies.

1. The Headings for Discussion

This research examines Assured Food Standards from the viewpoints of the following headings.²⁾

- a) Independent inspections: In order to increase AFS credibility among consumers and in order to avoid unsupported claims, a food assurance scheme should be inspected by an independent third party inspection body. Is each assurance scheme regularly inspected? Is the inspection body accredited by an international standard for product certification?
- b) The independence of an organising board: Is the organising board independent from related food businesses, such as farmers, food processors, and retailers? Does the organising board consist of representatives from all stakeholders in the whole food chain, including consumer representatives?
- c) The quality of inspections: Do inspectors have suitable expertise to carry out inspections? Are annual inspections carried out? Are unannounced or random inspections carried out? How many inspection bodies are there?
- d) Levels of standards in food safety, animal welfare, and environmental considerations: This

paper will examine whether AFS has standards that exceed the legal minimum and what kind of benefits they provide. Do the food assurance schemes under AFS provide clear consumer information on how their levels exceed the legal minimum?

- e) Traceability systems: Do food assurance schemes under the AFS have traceability systems? What are the requirements for traceability systems? Do they have requirements for not only minimum traceability systems but also internal traceability systems in the whole food chain?
- f) Control of logos, preventing false labelling and retailers' brand control: The research will examine the role of the AFS in preventing false use of logos and false claims on foods. This paper will analyse the relationship between assurance scheme logos and retailers' own logos.
- g) Clear consumer communication: Do the food assurance schemes provide consumers with clear information on their standards and farming practices? Do they disclose information based on evidence?

2. Farm Assurance Schemes and the Launch of AFS

'Due Diligence' of Food Safety Act and Retailers' Pressure

Various farm assurance schemes have developed in the UK since 1990. The development of farm assurance schemes was closely connected to the fact that The Food Safety Act came into force in 1990. The Act required food businesses to exercise "due diligence." The "due diligence" provision of the Act stipulated that all food businesses should take responsibility for selling safe food and for taking all reasonable precautions over food safety of their products, including the raw material supply chain (Kirk-Wilson, 2002, para 5).

Since the Act came into force, major retailers started their individual brand control schemes on farm products. In this paper, I will refer to retailers' own brand control schemes as "retailer brand control" schemes. Through retailer brand control schemes, the major retailers began to select farmers who could supply foods with adequate food safety. Farmers were faced with some pressure due to retailer brand control schemes. In addition, in the late 1990s, "retailers demanded that UK fresh products should come from farm assurance schemes." Major retailers were concerned about the credibility of food quality. Major retailers chose farm products that came from farmers' assurance schemes. As a result, farmers faced pressures from retailers. Since then, many farmers began to develop their own farm assurance schemes (Kirk-Wilson, 2002, para. 5).

Various farm assurance schemes caused consumer confusion

By the late 1990's, many farms and food companies had developed their own food assurance schemes. Farms set their own standards and carried out their own inspections. In those days, food inspections were carried out by farmers or producers themselves. By the end of the 1990's, almost all food production sectors in the UK had a variety of food assurance schemes. It was estimated that thousands of producers and processors participated

in food assurance schemes (Kirk-Wilson, 2002).

As a result of it, a wide variety of “farm assured” claims and logos flooded the market. This resulted in confusion among consumers, because each scheme had different levels of food safety standards and different assurance procedures. In addition, consumers also wanted one easily recognisable symbol. A nationally agreed scheme was needed not only by consumers but also by retailers and producers (Kirk-Wilson, 2002). This was the main background to the launching of Assured Food Standards. Therefore, the original aim of AFS was to integrate a wide variety of food assurance schemes (Food Standards Agency, 2002a).

The launch of Red Tractor and Assured Food Standards

In June 2000, the National Farmers’ Union of England and Wales (NFU) and the Meat Livestock Commission (MLC) launched the Assured Food Standards (AFS) scheme, on the recommendation of the Prime Minister. At the same time, the NFU launched the “Red Tractor” logo for the AFS scheme. The first aim of the AFS was to unite various farm assurance schemes under the single logo of the Red Tractor and to provide a definitive symbol of assurance that food had been farmed and produced with independent inspections (Assured Food Standards, 2005a). Since then, Red Tractor has continued to unite farmers and agricultural producers in the British food chain.



Figure1: The Red Tractor logo

by Assured Food Standards, <http://www.redtractor.org.uk>

3. The Structure of Assured Food Standards

AFS as an umbrella body of individual schemes

AFS is a non-profit making company. AFS ensures that food is produced in accordance with AFS standards in food safety, animal welfare, and the environmental practices. AFS is an umbrella body, administering several assurance schemes under the Red Tractor logo. To date, over 78,000 farmers and growers have joined AFS. Most of the farmers in AFS sell their products to one of 350 Red Tractor processors and packers, which are licensed to use the Red Tractor logo (Assured Food Standards, 2005a, 2005b).

AFS aims to unite different food standards under the single logo of Red Tractor. AFS is committed to harmonise different standards. To this end, “AFS represents a broad spectrum of individual assurance schemes” (Assured Food Standards, 2005a). The Red Tractor logo can

only be applied to food that has been produced, packed, stored and transported according to AFS standards (Assured Food Standards, 2005a, 2005b). In addition, AFS aims to promote greater participation in Red Tractor schemes and encourage the development of new standards in sectors not yet covered by the logo.

UK food assurance schemes have been estimated to include about 78,000 members. In 2001, a wide variety of food assurance schemes covered over 85% of production of milk, eggs, chicken, pork, and combinable crop sectors and over 65% of beef, lamb and horticultural produce. Most of these schemes were within Assured Food Standards, except for Lion Eggs and UKASTA feed schemes (Assured Food Standards, 2002a).

Assurance schemes within AFS

At present there are six main fields of standards: Pigs, Cattle and sheep, Chickens, Dairy, Fruits and vegetables, Harvestable crops. Eleven schemes are now recognised by AFS as eligible to use the Red Tractor logo. Under the AFS umbrella, six standards are wholly-owned subsidiaries by AFS, while five standards enjoy separate yet equivalent status to wholly-owned schemes. Therefore, AFS is an umbrella body which consists of individual schemes and the standards of Assured Food Standards consist of eleven kinds of individual standards within the umbrella. At present, Assured Food Standards does not have any scheme for imported food. If a food business in an EU member state wants to use the Red Tractor logo, it has to satisfy AFS licence conditions, including the rules on independent auditing and whole-chain traceability (Assured Food Standards, 2005d).

AFS standards are set up by considering a broad range of practices in the food chain. For example, there are standards for how vegetables should be grown, standards for how animals should be raised, standards establishing how animals are to be handled during transport. In addition, there are standards for bulk grain storage, standards for abattoirs and food factories, standards for food processing, standards for labelling, and standards for other

Table 1: The AFS schemes

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| <p>AFS schemes (wholly-owned subsidiary)</p> <ul style="list-style-type: none"> Assured British Meat (ABM): for cattle and sheep Assured British Pigs (ABP): for pigs National Dairy Farm Assured Scheme (DFAS): for milk and dairy products Assured Chicken Production (ACP): for chickens Assured Combinable Crops Scheme (ACCS): for harvestable crop Assured Produce (AP): for fruit, vegetables and salads |
| <p>AFS schemes (Separate finance)</p> <ul style="list-style-type: none"> Farm Assured Welsh Livestock, Northern Ireland Farm Quality Assurance Scheme Quality Meat Scotland Genesis Quality Assurance Soil Association Farm (for organic foods) |

critical steps in the food chain. All the standards of AFS are openly available on the AFS website, and consumers can access these standards (Assured Food Standards, 2005a).

Independent schemes

In the UK food industry, there are still many non-AFS schemes. For example, Lion Quality Scheme (eggs), UFAS/FEMAS- UKASTA food Assurance and Feed Material Assurance Schemes, Danish Bacon, Freedom Foods, Organic Bodies, and LEAF-Linking Environment and Farming are major independent schemes. Therefore, several schemes are still operating independently outside of AFS schemes.

Organising board of AFS

Assured Food Standards (AFS) is an independent organisation that manages the Red Tractor logo. AFS represents the interests of National Farmer's Union, Ulster Farmers' Union, the Meat and Livestock Commission, Dairy UK, and the British Retail Consortium. DEFRA and the Food and Drink Federation are included as observers in the scheme.

Assured Food Standards is run by an independent Chairman. The Board of Directors consists of producers in the six main commodity sectors. In addition, the Board of Directors consists of academics and professionals of veterinary science, animal welfare, trading standards and environmental protection. The board also includes representatives of retailers, processors, and consumer organisations (Assured Food Standards, 2005c).

The administrative costs for AFS are covered by assured fees and licence payments from member farmers and producers. In addition, AFS has a grant from DEFRA to finance further Red Tractor development. AFS is managed mainly on the basis of membership fees. Farmers and producers can participate in AFS voluntarily. This is a voluntary membership. Therefore, the organizing board is independent from farmers or producers.

AFS confirms independent inspections

According to a consumer survey by the National Consumer Council, consumers strongly demand that food assurance schemes should be truly independent from the marketing activities of farmers, producers and retailers. Consumers want a reliable scheme with independent inspections. Consumers need reassurance that farmers have truly produced food in accordance with a set of agreed standards of good agriculture practice. Consumers demand that food should be checked by independent inspectors in every step of farming, such as animal feed, housing, animal movements, and animal health, including animal welfare and environmental care. Therefore, it is an important base for consumers' trust that food assurance schemes are inspected by independent third party inspectors (National Consumer Council, 2003).

Assured Food Standards ensure that food has been produced in accordance with strict standards and that food has been checked by independent inspectors in every step in the food chain from farm to pack. Assured Food Standards supervises each scheme within its umbrella that has an independent inspection system. AFS requires that all schemes under the

umbrella should be monitored by third party inspections, with regard to every farming practice including food, farms and food process factories (Assured Food Standards, 2005b).

At present, all schemes within AFS are inspected by independent inspection bodies, such as EFSIS, CMI, PAI, and National Britannia. These are independent third party organisations which carry out inspections and monitoring, and provide certification of farming practices and production practices by farmers and producers. For example, Assured Chicken Production sets a standard for procedures of independent third party inspections. Its certification system requires examination of the product, the production process, the production environment and assessment of the quality management system (Assured Chicken Production, 2005, 'Poultry standards 2004-2005,' p. 2).

In addition, all schemes under the umbrella have to be accredited against EN45011 by the United Kingdom Accreditation Service (UKAS). All schemes within Assured Food Standards must operate according to the international standards for product certification EN 45011. The accreditation to EN45011 means that a food assurance scheme is rigorously inspected by an independent inspection body and that inspections are properly carried out by experienced inspectors (Kirk-Wilson, 2002).

4. Level of Standards

AFS ensures the legal minimum

This section analyses levels of standards within Assured Food Standards. Except for the Soil Association, which is an organic scheme, all food assurance schemes within Assured Food Standards are voluntary schemes. In EU countries, organic farming, organic food production, and organic labelling should be subject to EU legislation. In the UK, organic farming, organic production and labelling must conform to the UK Register of Organic Food Standards (UKROFS).

In contrast, non-organic food assurance schemes under Assured Food Standards are voluntary schemes. Therefore, it is important for these assurance schemes to explain clearly on what points food assurance schemes exceed the legal minimum, and what benefits they provide in food safety. Consumer organizations have demanded clarification as to what degree AFS standards are higher than the legal minimum. The National Consumer Council demanded that food assurance schemes should provide better food quality than that stipulated by the law (National Consumer Council, 2003).

Generally, many food assurance schemes within the Assured Food Standards provide greater benefits, which exceed the legal minimum. First, Assured Food Standards aims to ensure that all food producers under its umbrella provide benefits exceeding the legal minimum in food safety, animal welfare and environmental control. Assured Food Standards aims to ensure for consumers the minimum standards for good practices in on-farm activity and food safety. Second, AFS aims to raise the overall level of food standards in each food sector. In the next section, I will summarise the benefits in food quality and food safety which AFS schemes provide.

The Food Standards Agency required that assurance schemes should publish data on their benefits in food safety, animal welfare, and environmental arrangements that they carried out. Good practices which exceed the legal minimum should be disclosed and the information should be available to consumers (Food Standards Agency, 2002a). The Food Standards Agency strongly recommends that any specific claim of improvements should be based on evidence, for example on food safety or quality. "There should be a cross-reference to supporting scientific evidence with independent expert evaluation." If schemes claim to deliver improvements in farm practices, schemes should publish evidence and data on the food safety, animal welfare and environmental improvement which they have carried out (Food Standards Agency, 2002a). The agency recommends that assurance schemes should collect data on measurable improvements and make it available regularly to consumers (Food Standards Agency, 2002a).

The standards of Assured British Meat (ABM)

Assured British Meat is the meat, beef and lamb scheme.

- a) Feed requirements are above the legal minimum. This scheme permits only the use of compound feeds that are themselves assured under the UFAS feed scheme.
- b) The residency period was increased from 90 to 180 days for cattle, and from 60 to 90 days for sheep.
- c) The ABM has a Transport Scheme that aims to ensure the safe and compassionate transport of animals according to strict standards. It sets detailed requirements concerning driver training, the suitability of transport vehicles, the need for appropriate space allowances for stock being transported, and adequate feed, bedding and ventilation. The standards of the ABM Transport Scheme are above the existing legal requirements. All stock sold as "farm assured" must be transported using a producer's own vehicle which is inspected as part of the in-farm inspection, or, they should be transported by an ABM-registered hauler (Assured British Meat, 2005b, Newsletter).
- d) ABM offers inspection choices through two independent certification bodies, CMi Certification and EFSIS-FABBL. The membership farmers in the ABM schemes can choose either of these inspection services (Assured British Meat, 2005a, Newsletter).
- e) There are price differentials between foods with Assured British Meat assurance and non-farm assured stock through English auction markets. Cattle that are assured by Assured British Meat are worth £38.41 more, per animal, than non-assured cattle. The assured lamb is worth £1.14 per animal more than non-assured lamb. The non-farm assured stock is traded at a discount that amounts to some £ 3.17 million over a year (Assured British Meat, 2005b, Newsletter). This means the market, including retailers, evaluates foods with Assured British Meat assurance more highly than non assured produce.

The standards of Assured British Pigs (ABP)

The pig scheme known as Assured British Pigs emphasises independent inspections according to the standards in terms of food safety, whole chain traceability and animal

welfare.

- a) ABP standards require qualified veterinary visits and veterinary health plan. ABP requires monitoring of antibiotic residues and the use of veterinary medicines.
- b) ABP ensures salmonella control. Producers are required to buy pigs only from salmonella free sources. Vehicles must be kept clean. Pest control is required. Producers must avoid mixing pigs. Personal hygiene is required. Concerning feed hygiene, fermented liquid feed and acidified water are necessary.
- c) Traceability: The scheme provides traceability throughout the whole pig meat production chain from animal feed manufacture to meat processing and distribution. By using the ABP database, all licensed processors, cutting plants and pack-houses are subject to traceability audits (Assured British Pigs, 2004, Newsletter). Given an ABP registration number, surname, or trading name and address, the scheme confirms certification status, registration number, expiry date and scope of certification to the abattoir (Assured British Pigs, 2005b, Scheme Operating Procedures, clause 34). Producers must retain written records of the source, breed type, and use of all breeding stock and semen (Assured British Pigs, 2005a, The Certification Standard, clause 3.4). The ingredient composition of all feed shall be recorded and traceable to source (Assured British Pigs, 2005a, the Certification Standard, clause 4.5). The producers must record the type, quantity, and date of delivery of all feed.
- d) Animal Welfare: Producers must conform to the DEFRA Code of Recommendations for the Welfare of Livestock. Farmers must care for their animals according to the Five Freedoms Welfare Code. The code requires the following: Providing fresh water and diet to maintain full health; providing an appropriate shelter and a comfortable resting area; preventing disease or giving rapid diagnosis and treatment; providing sufficient space and proper facilities; ensuring conditions which avoid mental suffering. These good practices in animal welfare have an important bearing on improving food safety, because these practices are closely connected to food safety. For example, providing appropriate shelter has the implication of improving animal health and thereby reducing disease. Assured British Pigs requires producers to follow rules that prohibit the use of electric goads, sticks and pipes when handling stock.
- e) ABP has integrated the British Pig Executive's ZAP Salmonella Scheme into the ABP standards. This requires salmonella control procedures including a salmonella sampling project.
- f) Producers have to conform to requirements regarding housing and space.
- g) Concerning feed, compound feed should be sourced from a feed mill which is certified under the UKASTA Feed Assurance Scheme, or, the compound feed must be certified according to the UKASTA Feed Assurance Scheme. Producers must not use antibiotic growth promoters (Assured British Pigs, 2005a, The Certification Standard, clause 4.5.14). Feed requirements are maintained above the legal minimum. This scheme permits only the use of compound feeds that are themselves assured under the UFAS feed scheme.

- h) Transportation requirements: Pigs must be transported according to the ABP Livestock Transport Scheme.
- i) ABP appoints three certification bodies, which provide independent inspection services.

The standards of National Dairy Farm Assured Scheme (NDFAS)

The National Dairy Farm Assured Scheme (NDFAS) was established in 1997. It covers hygiene and food safety, housing and facilities, plant and equipment, feedstuffs and water, and herd health. The scheme was developed to address the concerns of all parties concerned in the milk supply chain. The scheme provides reassurance for retailers and consumers that standards are achieved. The scheme provides confidence about the production methods, food safety and quality of milk. The scheme places increased emphasis on keeping of accurate and meaningful records on animal health and welfare (National Dairy Farm Assured Scheme, 2005a, "Executive Summary").

- a) All compounds, blends and straights are purchased from accredited suppliers of the UKASTA Feed Assurance Scheme (UFAS). Farmers must keep delivery documents for all purchased feed. All dry foods are to be handled and stored in accordance with DEFRA Codes of practice.
- b) Concerning the assurance of herd health and welfare, farmers are required to create a Herd Health Plan for each individual farm. This is a written document of a plan for preventive healthcare and protocols. The Herd Health Plan works as a recording system to monitor herd health and welfare. The Herd Health Plan should be certificated by the British Cattle Veterinary Association. The herd health plan protocol must include infectious disease and vaccination plan, parasite control plan and other detailed requirements. The Herd Health Plan must be reviewed annually. The farm must maintain detailed records for the occurrence of all health and welfare conditions (National Dairy Farm Assured Scheme, 2005b, "Herd Health").
- c) Concerning medicines, detailed pharmaceutical records for all treatments and medicines administered must be kept available for a period of at least three years for all medicines, and for five years for Prescription-Only Medicines. Pharmaceutical records must include identity each of medicine, identification of the animal, and length of withdrawal periods for milk and meat and other information (National Dairy Farm Assured Scheme, 2005b, "Herd Health").
- d) Regarding traceability, the farm must be registered with the British Cattle Movement Service.

The standards of Assured Chicken Production (ACP)

This poultry scheme covers 90-95% of the UK broiler market on over 1700 farms (Kirk-Wilson, 2002). Assured Chicken Production aims to set standards for the nutrition and welfare of poultry and to verify farmers' compliance with these standards. In addition, it aims to increase the standards of food safety and environmental considerations.

- a) Producers or farmers should be aware of the standards of the DEFRA Codes of Good

Agricultural Practice for Protection of Soil, Air, and Water.

- b) Although antibiotic growth promoters are legal, feedstuffs must not include antibiotic growth promoters (Assured Chicken Production, 2004, Newsletter, p. 3). Feedstuffs do not contain Meat and Bone meal or Poultry By-products Meal. Feedstuffs can not contain tallow. Compound feed is to be sourced from a mill with certified membership of UFAS. Samples of each delivery of food are retained for three months (Assured Chicken Production, 2005a, Poultry Standards, 4.12).
- c) Producers need to satisfy a guidance on stocking density and free range which is defined in detail.
- d) Producers are required to have total traceability systems for the whole life of the bird up to the processing point. These standards require detailed record-keeping and clear documentation of the following: Records of feeding stuffs purchased – date, description including ingredients, quantity, supplier, batch code for additives; Records of any tests conducted on purchased feeding stuffs; Details of storage; Date fed (Assured Chicken Production, 2004, Newsletter, p. 3).
- e) The standards require stringent salmonella control. Parent poultry flocks must have salmonella vaccination. Salmonella monitoring of broilers, pre-slaughter, is compulsorily required. Breeder replacement flocks must be monitored for salmonella. Testing must be undertaken in a government-authorised laboratory. Compulsory vaccination against salmonella and monitoring for salmonella are very important aspects of Assured Chicken Production. Concerning breeder replacement flocks, full records of all salmonella tests for flocks must be kept so that producers can be traced.
- f) All units must retain the services of an experienced poultry veterinary surgeon. Evidence should show that the veterinary surgeon provides regular advice on the health, hygiene and welfare of the birds. Producers must have a written plan for poultry health and welfare covering most poultry diseases.
- g) Producers must carry out an investigation to establish the cause if mortality exceeds 0.3% (previously 0.5%) in a 24 hour period (Assured Chicken Production, 2004, Newsletter, p. 2).
- h) Feed requirements are above the legal minimum. Assured Chicken Production permits only the use of compound feeds that are themselves assured under the UFAS feed scheme.
- i) Concerning the quality of independent inspections, at least one week notice is given of any routine site assessment. The routine surveillance is based on an annual assessment cycle including an in-built random assessment element. If serious non-conformance is found in relation to key inputs (feed, medicines and vaccines), it will result in exclusion from the membership (Assured Chicken Production, 2005a, Poultry Standards).
- j) Assured Chicken Production appoints two organisations as independent certifiers (Assured Chicken Production, 2005b, Newsletter).

The standards of Assured Combinable Crops Scheme (ACCS)

- a) Since the ACCS crops scheme was established, over 20,000 registrations have been certified.
- b) Assured Combinable Crops standards are above minimum legal requirements. The standards include suitable practices concerning soil, water, and the safe use of pesticides. These standards apply to DEFRA Codes.
- c) The standards require the control of salmonella. The members should comply with the DEFRA Code on Salmonella (COP COS storage of Animal Feedstuffs PB2202).
- d) The standards are based on the Integrated Crop Management (ICM) which has been developed with LEAF (Linking the Environment and Farming).
- e) The application of HACCP is required.
- f) Assured Combinable Crops emphasises the minimum usage of fertilizers and pesticides, which is much stricter than the legal minimum amounts. In order to control crop-spray use and minimise residues, the schemes have introduced new practical programmes. The most significant programme among them is the National Sprayer Testing Scheme (NSTS), which requires all sprayers to be tested. NSTS was created by the industry to provide one test procedure across the UK. The standards require that all sprayers used on farms with over 50 ha of combinable crops and sugar beet must have a valid test certificate. Sprayer tests must be carried out annually. This is because Assured Food Standards and supply contracts are increasingly requiring clear evidence that machinery is tested. "Failure to provide evidence of an up to date certificate for sprayers leads to a Critical Non-Conformance against the standards" (Assured Combinable Crops Scheme, 2005c, Newsletter).
- g) The standards require three-year records of pesticide and fertiliser applications (Assured Combinable Crops Scheme, 2005b, Standards 2004–2005, 2.10). All operators of spraying equipment must be registered with National Register Operators (NROSO) (ibid. 2.18). Crop sprayers must be calibrated and maintained at the beginning of the season and re-calibrated during the season (ibid. 2.14). All equipment must be calibrated and recorded (ibid. 3.0).
- h) Concerning fertiliser, Assured Combinable Crops requires its member farmers to comply with DEFRA's fertiliser recommendations for Agricultural and Horticultural Crops (RB209). Members must undertake soil analysis for major nutrients at least every four to five years to help optimise fertiliser applications (ibid. 5.8).
- i) Concerning storage, storage records should include details of buildings, records of pest control, action taken against contamination, weekly records of temperature and grain conditions, and operator skills. Farmers have to monitor moisture content as well as the temperature of stored grain on a weekly basis (Assured Combinable Crops Scheme, 2005c, Newsletter).
- j) Concerning independent inspections, currently farmers can choose a certification body from four certification bodies.

The standards of Assured Produce Scheme Standards (AP)

This is a horticulture scheme. In 1997, independent inspection systems were introduced.

- a) The scheme standards highlight pest control, disease and crop management systems for each specific crop. The standards are based on “Integrated Crop Management (ICM)” techniques, which are the AP’s code. ICM requires good horticultural practices with emphasis on reducing whenever possible the use of pesticides, optimum use of fertilisers and improved production of the environment. The scheme standards exceed legal minimum requirements.
- b) The AP’s standards require detailed information on each crop and field relating to the use of pesticides. Members have a statutory requirement to keep records of pesticide applications for at least three years.
- c) Concerning fertiliser, it is strongly recommended that nutrient applications fall within the limits contained in the DEFRA fertiliser recommendations.
- d) The standards require environmental controls for the managed use of water and fertilisers.
- e) The scheme uses a HACCP approach to identify critical control points for each stage of crop production and encourages members to produce a documented HACCP for their local circumstances. The HACCP technique is based on detailed procedures written in the ‘AP Generic Protocol Guidance Notes.’
- f) Every member of the scheme has to be verified at least once every three years. Verifications take place 12 months of the year.
- g) Chemical fumigation of soil should be avoided whenever possible. Where chemical soil fumigants are used, written justification should be documented and should be recorded about location, date, active ingredient, dose, method of application (Assured Produce, 2004, Generic Crop Protocol Standards, 4.3).
- h) Concerning the use or production of products derived from genetic modification, suppliers must inform “all potential customers.” The use of GMO cultivars must be agreed with “individual customers prior to planting” (ibid. 5.5.1).
- i) Concerning traceability, members must ensure that traceability is possible through their production process. All Assured Produce Registered Products must be traceable to the registered farm where they have been grown (Assured Produce, 2003, “Generic Crop Protocol Standards,” p. 13). An ‘Audit-trail’ should be in place to enable individual produce batches to be traced from initial receipt of seed, through production, harvesting, packing, storage to the final point of sale to the consumer (Assured Produce, 2004, Generic Protocol Guidance Notes 2004/2005, 2.1.1).

The standards in Soil Association Farm Assured (SAFA)

In the UK, over 4000 farmers and companies are certified by the Soil Association. The Soil Association has gained the biggest market share in organic foods in the UK. Over 80% of organic products in the UK are certified by the Soil Association (Soil Association, 2005, “Why Certify with US”). In general, Soil Association has gained credibility as an organic food label

among consumers and retailers.

- a) Soil Association is the only certification body in the UK owned by a charity, which aims to promote the benefits of organic farming and food to consumers. Any financial surplus gained by the certification of Soil Association is used by the Soil Association Charity in order to help the charity work for organic farming. Financial surplus does not go into profits for the shareholders (Soil Association, 2005, "Why Certify with US").
- b) EU regulation 2092/91 came into force in 1993. The EU regulation 2092/91 sets out the inputs and practices for organic farming, and the inspection system that must be carried out. This regulation also applies to processing and ingredients in organic foods. All food sold as organic in the EU countries must originate from growers and processors who are registered with an approved certification body and are regularly inspected.
- c) The UK regulation on organic foods is based on the EU regulation 2092/91. The UK regulation on organic foods is known as the DEFRA Compendium of UK Organic Standards. The Soil Association standards meet the legal minimum of the DEFRA Compendium. In addition, Soil Association standards are higher than the DEFRA Compendium in many areas. Particularly, the standards exceed the DEFRA Compendium with regard to animal welfare, such as poultry standards, and input allowed in organic crop production. The Soil Association has developed standards for areas not covered in the DEFRA Compendium, such as conservation, aquaculture and health products.
- d) The Soil Association provides the seed user with full traceability right back to the field. Soil Association certification requires that farmers be annually visited by an inspector. Soil Association provides the Soil Association Farm Assurance Scheme, which is a farm assurance scheme in the Soil Association. This is because some buyers request farm assurance in addition to organic certification.

5. UKAS Accreditation to Ensure Independent Inspections

UKAS accredits food assurance schemes

United Kingdom Accreditation Service (UKAS) officially assesses and accredits organizations which provide certification, inspections, testing and calibration services. UKAS is the only accreditation body recognised by the UK government. Accreditation by UKAS is the principal indicator for independence of a food assurance scheme. If a food assurance scheme gains an accreditation to EN45011 with UKAS, it means that the food assurance scheme has been properly inspected by independent inspectors.

UKAS assesses whether a food assurance scheme is rigorously inspected by an independent inspection body, and whether inspectors are properly trained and sufficiently experienced. Through these procedures, it can be verified that a food assurance scheme is checked by independent inspectors. UKAS accreditation is essential to verify that the food assurance scheme has a system of independent inspections (Kirk-Wilson, 2002).

UKAS → Accreditation → Food assurance scheme

UKAS accredits inspection bodies

On the other hand, concerning on-farm activities and food safety, inspection of a food assurance scheme by an independent inspection body assures the credibility of food assurance schemes. However, in order to verify credibility of the food assurance scheme, the inspection body should be truly independent from any influence from the food assurance scheme and farmers. UKAS assesses whether an inspection body is truly independent from any interests of a food assurance scheme, farmers and producers.

UKAS → Accreditation → Inspection body

Through this procedure, UKAS accredits that a food assurance scheme achieves independence from farmers, producers and other relevant stakeholders. UKAS accredits that a food assurance scheme is competent, and that a food assurance scheme can continue to deliver independent operations. UKAS accreditation means that the assurance scheme is rigorously inspected by an independent third party certification body.

In the UK, only UKAS can accredit the independence and competence of food assurance schemes and inspection bodies (certification bodies). UKAS assesses not only the independence of food assurance schemes but also the independence of inspection bodies which provide inspections and certification services concerning farming practices. In this sense, UKAS has significant responsibilities in ensuring the minimum quality of independence and competence in food assurance schemes. In order to make clear the role of UKAS accreditation, it is necessary to understand the relationship between UKAS, food assurance schemes, and inspection bodies. The relationships between UKAS, assurance schemes, and inspection bodies are as follows:



International standard EN45011

In order to gain UKAS accreditation, a certification body or inspection body and a food assurance scheme must fully comply with international standards EN 45011. EN45011 is general requirements for bodies operating product certification systems (European Cooperation for Accreditation, 1999). Therefore, UKAS requires not only food assurance schemes but also inspection bodies to operate in line with EN45011. EN45011 accreditation is the principal indicator to verify that the food assurance scheme is independent from producers and other stakeholders (Kirk-Wilson, 2002). The Food Standards Agency strongly recommends that in order to gain credibility with consumers on food assurance schemes, all food assurance schemes should obtain UKAS EN45011 accreditation (Food Standards Agency, 2002a).

6. Improving Inspections and the Frequency of Inspections

Competition between inspection bodies

In order to increase credibility among consumers, it is important to improve the quality of inspections. How many inspection bodies are appointed by each food assurance scheme? Is there competition between the inspection bodies that are appointed? If a food assurance scheme appoints only one independent inspection body, this means there is no competition between inspection bodies. It leads to a risk that the inspection body might not maintain its inspections rigorously or a risk of collusion between the inspection body and the food assurance scheme. If the food assurance scheme appoints two or more inspection bodies, this would prevent the possibility of collusion. When there is competition between two or more inspection bodies, the quality of inspections and the independence of inspection bodies would be better maintained (Kirk-Wilson, 2002).

Therefore, the Food Standards Agency recommended that food assurance schemes should appoint more than one independent inspection body. The Agency recommends that Assured Food Standards (AFS) should encourage this approach among the assurance schemes within its umbrella. For example, the Assured Combinable Crops Scheme (ACCS) appoints four inspection bodies for inspection services. Currently the membership farmer can choose one of four certification bodies. The names of the four inspection bodies are opened on the ACCS website. Assured Chicken Production appoints two organisations as independent certifiers (Assured Chicken Production, 2005b, Newsletter). Assured British Pigs appoints three certification bodies. Assured British Meat (ABM) offers inspection choices through two independent certification bodies, CMi Certification and EFSIS-FABBL. The membership farmers in the Assured British Meat schemes can choose either of these inspection services (Assured British Meat, 2005a, Newsletter).

The frequency of inspection

Generally schemes within Assured Food Standards are committed to an annual assessment. However, some inspections are made once in eighteen months, and some schemes are committed to inspections every two years. The Food Standards Agency strongly recommends that some schemes increase their regularity and frequency of inspections (Food Standards Agency, 2002a, 2002c).

For example, the Assured British Pigs scheme requires member farms to be re-inspected annually. In the Assured Combinable Crops Scheme, farmers should be assessed once in every crop cycle, prior to harvest, with a minimum of six months and a maximum eighteen months between assessments (Assured Combinable Crops Scheme, 2005b, Standards 2004-2005, p. 1). In Assured Produce, member farms normally have to undertake a minimum of one internal audit per annum, but certifications are valid for a maximum of eighteen months. The internal audit must be documented and recorded (Assured Produce, 2004, General Crop Protocol Standards, 2.5.1). Assured Chicken Production requires that a routine surveillance is based on an annual assessment cycle.

In National Dairy Farm Assured Scheme, the milk purchasers are responsible for organising farm assessments. Therefore, the milk purchasers inspect farmers. However, there is no clear explanation about how often farm assessment is to be carried out by the milk purchasers. In addition, random audits are very few. Only one random audit of a farm is carried out for every 500 producers in every twelve months (National Dairy Farm Assured Scheme, 2005c, 'Responsibilities within the Auditing Process').

Most inspections are announced. Although many assurance schemes provide random visits, unannounced monitoring and random visits are infrequent, and random visits are not regularly undertaken. The Food Standards Agency recommends that if assurance schemes often were to carry out random visits and unannounced monitoring, their credibility would be further increased (Kirk-Wilson, 2002, Food Standards Agency, 2002a).

※ The Part 2 will be continued in the next issue.

Notes

- 1) UK organic farming, organic production and labelling must conform to the UK Register of Organic Food Standards (UKROFS). All organic schemes are subject to EU standards, which are obligatory.
- 2) This research is largely based on the report "Review of Food Assurance Schemes – Report to the Food Standards Agency by Ruth Kirk-Wilson" (Kirk-Wilson, 2002). This review provided a wide-ranging review on food assurance schemes in the UK. It made clear the problems and required improvements in UK food assurance schemes, in terms of food safety, responsibility to consumers, transparency and independence of food assurance schemes. The review examined 18 food assurance schemes including the Assured Food Standards. It covers UK's major food assurance schemes in different kinds of food sectors.

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