

Assessment and comparison of third party assurance schemes in the food sector: *Towards a* common framework Final report for the Food Standards Agency CR2435 R2 V8 © Crown Copyright October 2013

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Assessment and comparison of third party assurance schemes in the food sector: *Towards a* common framework Final report for the Food Standards Agency

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Glossary

Accreditation Body: An organisation normally operating at a national or international level and approved by government to assess and accredit Approval Bodies against relevant national or international standards e.g. EN45011¹. The United Kingdom Accreditation Service is an Accreditation Body. UKAS is the sole national accreditation body in the UK recognised by government to assess, against internationally agreed standards, organisations that provide certification, testing, inspection and calibration services.

Approval Body: An organisation offering an approval service for those seeking to demonstrate conformance with the standard. This body may be termed a Certification Body or an Inspection Body depending on the methods and approach taken to the approval process. It may be separate from the Standard Setting Body.

Assessment: Used within this document to mean the work undertaken to assess the food business against the requirements of the standard.

Assurance Scheme: A scheme for assessing and approving food businesses against a defined standard. Those food businesses achieving approvalqunder an assurance scheme may be considered to be operating at a particular level or have achieved a certain statusq These schemes are referred to as Certification Schemes in some sectors but are called assessment schemes in this report.

Audit: EC regulation 882.2004 (p20) states % udit means a systematic and independent examination to determine whether activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives+.

Audit is generally based around questioning personnel, reference to documents, observations and challenging the systems in place to establish whether the criteria within the standard are being met consistently. This includes examination of records. Inspection is an element of audit e.g. undertaking a test of the traceability provision within a food business.

Certification: The issue of a certificate to demonstrate that the food business has achieved all the requirements of the standard. The certification decision is made by a suitably qualified and authorised person (or persons) who is independent of the person undertaking the assessment of the food business but may be employed by the same Approval Body.

Competent Authorities: EC regulation 882.2004 (p20) states "competent authority "means the central authority of a Member State competent for the organisation of official controls or any other authority to which that competence has been conferred+. The authorities that are responsible for national enforcement arrangements at central and local levels as well as other authorities that have responsibility for monitoring and enforcing the law (i.e. carrying out official controls). The central authorities are the Food Standards Agency, Defra and the devolved Agriculture Departments and their agencies (e.g. Food Standards Agency Operations Group (formerly the Meat Hygiene Service), the Veterinary Medicines Directorate, the Chemicals Regulation Directorate of Health and Safety

¹ This European Standard specifies general requirements that a third-party operating a product certification system needs to comply with if it is to be recognized as competent and reliable.

Executive, and the Animal Health Dairy Hygiene Inspectors (formerly the Dairy Hygiene Inspectorate). At the local level, much of the enforcement of feed and food law is carried out by Environmental Health and Trading Standards Services in local authorities. This includes port health authorities which have specific responsibilities in relation to import controls.

Enforcement authority: % inforcement authority+means the authority which, by virtue of regulation 5 of the Food Hygiene Regulations 2006 (as amended), is responsible for executing and enforcing the Hygiene Regulations.

Food business: A <u>tood</u> businessqmeans any undertaking, whether for profit or not and whether public or private, carrying out any of the activities related to any stage of production, processing and distribution of food.

Food business operator: A <u>food business operator</u> means the natural or legal persons responsible for ensuring that the requirements of food law are met within the food business under their control.

Food, feed and animal welfare assurance scheme: The term scheme is used to refer to the product certification schemes to check that members are meeting specific standards included in this review.

Inspection: EC regulation 882.2004 (p20²) states **%** aspection means the examination of any aspect of feed, food, animal health and animal welfare in order to verify that such aspect (s) comply with the legal requirements of feed and food law and animal health and animal welfare rules.+

Inspection is generally based on observation at a moment in time and is specific to stated characteristics e.g. whether a surface is clean.

Sampling for analysis: Sampling for analysisqmeans taking feed or food or any other substance (including from the environment) relevant to the production, processing and distribution of feed or food or to the health of animals, in order to verify through analysis compliance with feed or food law or animal health rules.

Standard: The ISO³ defines standards as % standard is a document that provides requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose+.

Standard Setting Body: A group of qualified individuals, possibly an organisation, with representatives from stakeholders and who define the criteria required within the standard and the requirements for organisations that will assess businesses against the standard. The standard setting body ‰wns+the standard.

The Agency: This is the Food Standards Agency.

² Regulation (EC) No 882/2004 of the European Parliament and of the council. <u>http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2004R0882:20060525:EN:PDF</u>

³ http://www.iso.org/iso/home/standards.htm. Downloaded October 2013.

Key findings

This evaluation has identified that many third party assurance schemes meet the researchersqcriteria for the Agency to consider advising enforcement organisations to take them into account when scheduling inspections. Whilst there are some common aspects of the assessment process that could be explored further, and some schemes may have specific issues, as a whole the assessment processes are well designed.

- Broadly speaking most schemes have well established approaches to developing standards, conducting assessments of businesses and clear requirements regarding the competence of assessors;
- Many approval organisations are UKAS accredited and adopt appropriate standards for certification (approval) bodies.

Therefore, the study concluded that the Agency could consider increasing the number of schemes to be taken account of in setting the frequency of inspections by local authorities and other enforcement organisations.

However, the study identified a range of issues that indicated that the Agency may need to further consider the role of these schemes and the process for recognising them (for sake of taking them into account in setting inspection frequencies and alternative interventions), especially if the number of recognised schemes is significantly increased.

Most third party assurance schemes have been developed in response to demands from supermarkets for independent verification rather than to perform the functions associated with inspections and other interventions by regulators. Some of the functions of regulatory inspections may not be covered by the typical third party assurance process. These issues do not indicate that the schemes are flawed but they do indicate potential limits to their role as an alternative to inspection by local authorities and other enforcement organisations. The issues include:

- Many assessment bodies do not provide advice to food businesses on solutions to their specific conformance problems by their approval organisation as they think that this conflicts with the requirements of EN45011⁴;
- Many of the schemes do not have systems for communicating news of common safety or hygiene problems (found during assessments) across an industry;
- The approval bodies do not carry out tests of food samples or seek to use the results of food surveillance or local authority and other enforcement organisation inspection results to check the outcomes of their schemes or to detect emerging problems, although Agency surveillance results have been used for this purpose in a few cases.

⁴Information provided by UKAS indicates that whilst it is acceptable for approval bodies to provide generic advice and guidance to organisations that they assess, it would not be acceptable for an assessor to propose a specific solution and explain how it could be used in the organisation they are auditing. Assessors can clarify the requirements of the standards but should not give prescriptive advice or consultancy as part of an assessment. This does not preclude normal exchange of information with the clients and other interested parties. The approval body can also provide training, providing that it is confined to the provision of generic information that is freely available in the public domain; i.e. the trainer should not provide company-specific solutions.

The current data sharing agreement with Assured Food Standards allows local authorities and other enforcement organisations to check the approved status of food businesses. However, the arrangement does not require that assessors advise enforcers in the event that the assessor finds serious non-conformance representing a serious or imminent risk to public or animal health that has not already been rectified by the assessed business. In the event of a reduced frequency of inspection and there being no requirement for assessors to report to local authorities and other enforcement organisations unresolved imminent risks at a food business, the ability of local authorities and other enforcement organisations to detect and act on these risks could be reduced.

The Agency has to date reviewed third party assurance schemes on an ad hoc basis. It is noted that whilst third party assurance schemes have been developed by the private sector for the sake of satisfying industry needs, if the schemes are to be taken into account when deciding on inspection frequencies by local authorities and other enforcement organisations, then the schemes also need to satisfy Agency requirements.

Feedback from the Agency indicated that it does not have a declared or formalised process for reviewing schemes for the sake of considering them for earned recognition or to monitor their subsequent performance. The potential need for a defined process for approving and monitoring third party assurance schemes was reinforced by the finding that there was little objective evidence regarding the level of food borne disease at approved businesses, other than Agency surveillance results for some food products. Previous reviews of schemes have focused on their content and process, with few considering their outcomes in respect of contamination and food borne disease. Agency surveillance data, whilst reporting declines in some pathogens, do not report a clear link between the introduction of third party assessment schemes and these trends.

Therefore, the researchers outlined some options for how the Agency or a joint Agencysector committee could further develop and operate an ongoing process for recognising schemes and reviewing their ongoing status with respect to scheduling of inspections.

Finally, most schemes apply to primary production, processing and distribution, with limited application to import, catering, retail and hospitality activities. Also, schemes were not identified for the production of some products, such as spices and nuts. Thus, there was scope for broadening the application of third party certification schemes.

Executive summary

Food third party assurance schemes are voluntary schemes which verify, through regular independent assessments, that organisations are meeting stated standards. They arose in the 1990¢ in response to retailers need for verifiable and independent audit and certification of the food business¢ ability to produce safe consistent products, in part to demonstrate due diligence in their procurement and fulfilment of the Food Safety Act 1990.

The August 2010 update of the Agency simplification plan stated that:

We will consider the role of third party assurance schemes, including our understanding of their potential to reduce the burden of inspection, as part of the review of the Code of Practice, which is currently under way+⁵.

Whilst regulators cannot give up their enforcement role, they can direct resources on the basis of risk. As the Agency says⁶, &ssurance schemes can provide information that contributes to the determination of risk-based frequency inspection regimes...+. If an organisation is part of a third party assurance scheme, this may provide grounds for reduced inspection or different types of intervention.

A number of schemes, as listed in the findings below, have already been included by the Agency in a list of those which regulatory services may wish to take account of when planning inspections, such as the Assured Food Standards. The Agency has published some advice (Kirk-Wilson, 2008), in the context of ensuring meeting consumersqlabelling needs, for the design of third party assurance schemes. This includes %tandard setting boards with a strong independent element+, % hazard-based approach to health and safety standard setting+, %ensure that inspections are carried out by a certification body which is independent from the standard-setting body+and %monitor scheme outputs to substantiate claims+.

The Agency wished to look more widely at the scope for recognition of membership of third party assurance schemes. Whilst the aforementioned list of assurance schemes cover the primary production of many commodities, this work aimed to explore the application of these schemes to other commodities and parts of the <u>farm</u> to forkqchain such as catering, processing and retail.

This work aimed to provide the Agency with an extensive list of schemes operating in the food sector with focus on non primary production, a set of criteria against which to evaluate them with respect to earning recognition and an evaluation of each of these schemes. The work will enable the Agency to progress its thinking regarding the role of third party assurance in reducing the burden of inspection by enabling it to 1) identify existing schemes that meet the criteria and 2) advise on issues for further consideration.

The ultimate question was whether there was evidence that the schemes are sufficiently developed or clearly have the potential for them to be taken into account in setting the frequency of inspections and the design of alternative interventions by local authorities and other enforcement and whether this would be on a large enough scale to offer significant advantages in the UK. As part of this, the researchers aimed to highlight schemes that,

⁵ http://www.food.gov.uk/multimedia/pdfs/stakeholderactionaug2010.pdf

⁶ <u>http://www.food.gov.uk/science/research/choiceandstandardsresearch/enf-research/fs245006/#.UI0PQhC1ulE</u>. Downloaded November 2010

with further development, appear to have the potential to offer value and what processes they need to develop.

Method

An extensive list of schemes was identified by completing an internet search for schemes and relevant documentation and studies; contact (by phone and letter) associations and direct contact with the organisations running schemes and certification organisations (if need be) to acquire scheme information. Documentation (including standards) was collated that described the schemes, their requirements and any outcome evaluations; additionally a questionnaire was issued to each scheme, as per section 7.

Schemes were shortlisted using the following criteria; operating in UK; cover food safety and hygiene (including those schemes that also reference animal health and welfare or animal feed assurance) and operated by a third party (an organisation that is not owned or part of the assessed organisation or its customers).

A draft set of criteria was developed (shown in section 6) and the Agency consulted to review and agree these criteria. The criteria were developed solely for the sake of enabling the researchers to evaluate third party assurance schemes in respect of recognising them within inspection frequencies and alternative interventions and do not necessarily represent current FSA opinion or policy. The schemes should, at a minimum, assure conformance with relevant food safety and hygiene law. In instances where schemes are applied to operations involving livestock it was also required that animal health and welfare requirements were included as a minimum before these schemes might be considered in inspection frequencies and alternative interventions. Some of these criteria were regarded by the researchers as <code>%essential+</code>, whilst others were regarded as <code>%mportant+</code>. For example, it was considered essential that the scheme requires application of suitable food hygiene and safety procedures by assured firms whilst it was <code>%mportant+</code> the standards setting committee has an independent chair.

Each scheme was rated using the following scale:

- 0) Does not address criteria
- 1) Partly fulfils criteria
- 2) Totally fulfils criteria
- 3) Exceeds criteria

A commentary on each scheme was provided, highlighting features that do not meet the criteria. Overall results were summarised by mapping schemes out across food products and along the food chain (as per section 2.1). Within this any gaps in schemes were indicated for certain sectors or foodstuffs, and whether there were common weaknesses in schemes such as food sampling procedures.

Finally, a rapid search for evaluations of assurance schemes was completed and evidence sought from the scheme operators in our questionnaire. Any cited studies were included in the review. A synthesis of the evidence was provided (see section 3) regarding the extent to which there is evidence that third party assurance schemes have been associated with food law compliance and reduced incident rates.

Findings

A number of schemes have already been listed by the Agency, including the family of standards managed by Assured Food Standards, for consideration when planning inspections. There was also an ongoing consultation⁷ on taking account of Assured Dairy Farms in setting the frequency of inspections. The findings of this evaluation do not confound this. These include AFS standards, Quality Meat Scotland (QMS), Farm Assured Welsh Livestock (FAWL), Northern Ireland Beef/Lamb Farm Quality Assured Scheme (NIBLFQAS), National Dairy Farm Assured Scheme and the Genesis Quality Assurance (GQA) standard.

This evaluation would suggest that consideration could also be given to giving recognition to the following standards/schemes that were included in the research (in no particular order):

Scheme Owner	Standard	
Generic Schemes		
British Retail Consortium (BRC)	Global Food Standard v5	
FSSC	FSSC 22000	
Synergy Global Standardisation Services	Synergy 22000	
IFS	International Food Standard v5	
STS Solutions	Small & Regional Certification Scheme	
	Code of Practice and Technical Standard for Food Processors and Suppliers to the Public Sector v3	
	Code of Practice and Technical Standard for Food processors and Suppliers to the non Public Sector (2007).	
SALSA	SALSA	
	SALSA + SCA Standard	
NSF-CMi	Đue Diligenceq. Manufacturing Standards	
	Due DiligenceqWhole, storage and distribution	
Feed		
AIC	Universal Feed Assurance Scheme (UFAS), Trade Assurance Scheme for Combinable Crops (TASCC), Feed Materials Assurance Scheme (FEMAS), Fertiliser Industry Assurance Scheme (FIAS).	

Table 1: Additional schemes that could be considered for recognition by the Agency

⁷ http://www.food.gov.uk/multimedia/pdfs/consultationresponse/consultrespfarminsp.pdf

Scheme Owner	Standard	
The Grain and Feed Trade Association	The GAFTA Trade Assurance Scheme (GTAS)	
GMP+FAS	GMP+ Feed Assurance Scheme	
Farm Assurance Schemes		
Scottish Quality	Farm Assurance	
GlobalG.A.P.	Integrated Farm Assurance (all scopes)	
	Compound Feed Manufacturing Standard,	
	Plant Propagation Material standards	
Meat Processing		
Scottish Quality	Wild Venison	
Guild of Q Butchers	Guild of Q Butchers Standard	
British Meat Processors Association	British Quality Assured Pork	
English Beef & Lamb Executive (EBLEX)	(EBLEX) Quality Standard Mark*	
British Meat Processors Association (BMPA)	British Quality Assured Pork (also Sausage, Bacon and Ham standards)	
National Association of Catering Butchers (NACB)	Standard for Catering Butchers	
Eggs		
British Egg Industry Council	British Lion Egg	
Sandwiches		
British Sandwich Association (BSA)	British Sandwich Association Accreditation scheme	
Malt Processing		
Maltsters' Association of Great Britain	The Assured UK Malt Technical Standard	

*The EBLEX and BMPA schemes rely on other assurance schemes for specific elements of the supply chain. As such it is not by itself a standard but a way of assuring against a family of standards.

The Seafish Responsible Fishing Scheme and the Food Certification Ltd assessment against Integrated Aquaculture Assurance standards were identified at the end of this review. A preliminary review of them suggested they could also be considered for earned recognition.

A fundamental issue is whether the Agency needs a higher level of evidence about the outcome of the schemes (in respect of standards of food safety and hygiene) before

widening the scope and extent of earned recognition, as well as to maintain earned recognition status of schemes already recognised. In the absence of independent outcome evaluations, it was recommended that the Agency considers:

- Either collating the results of inspections completed by local authorities and other enforcement organisations of approved and unapproved businesses and analyse these to verify the level of food hygiene achieved by approved and unapproved businesses. This would help verify the outcome of schemes and fulfil a purposive &urveillance+of these businesses and associated schemes;
- Or, requiring the standards setting bodies or standards setting bodies fund a comparable % urveillance+process completed by other independent assessors.
- And asking that standards setting bodies or UKAS compare (within each standard and type of food business) certification refusal rates and non-conformance rates between accreditation bodies to monitor for signs of anomalous variations in assessment results and practices.

It can be noted that the review of UK feed assurance recommended the development by AIC of Critical Performance Indicators (Dean, 2008, p29) and that these indicators be developed on an industry basis to assess the performance of scheme adherents (as a whole) over time.

The single most important area for further research was considered to be securing independent evidence of the outcomes of assurance schemes with respect to levels of compliance, contamination and disease.

1 INTRODUCTION

1.1 Background

Food third party assurance schemes are voluntary schemes which verify, through regular independent assessments, that organisations are meeting stated standards. They arose in the 1990¢ in response to retailers need for verifiable and independent audit and assurance that suppliers were capable of consistently producing products in accordance with specified requirements, in part to demonstrate due diligence in their procurement and fulfilment of the Food Safety Act 1990. Retailers used to carry out their own assessment of suppliers but favoured the move to the use of third party schemes as these would be paid for by the supplier, rather than the retailer. A model of ‰ackward integration+was adopted by supermarkets with collaboration between all stages of the food chain. Typically a standard setting organisation creates a set of requirements which approval organisations assess businesses against.

Another notable development comprised the implementation of animal feed assurance schemes, such as those cited by Agricultural Industries Confederation (UFAS, TASCC, FEMAS and FIAS). The first AIC schemes were developed in the 1990¢ in response to consumer and legislative pressure arising from the recognition of Bovine spongiform encephalopathy (BSE) in cattle and increases in other pathogens such as *Salmonella*. The Universal Feed Assurance Scheme was developed to cover compound feed mill and merchants that produce and sell animal feed materials and compound feeds and Feed Materials Assurance Scheme covers the area of feed material production. The decline in BSE has been attributed to the ban on meat and bone meal (Sala et al 2009), which these schemes helped to implement.

A review of 3rd party assurance schemes was commissioned by the Agency in 2002 (Kirk-Wilson, 2002) with an update in 2008 (Kirk-Wilson, 2008). The 2002 review covered the Assured Food Standards Schemes (AFS- also known by its Red Tractor logo) that focused on production (farmers). Whilst noting that the schemes were at different levels of development the report concluded that the schemes deliver increased inspection on farms, aim to improve standards over time and advocated their further development. In addition the 2002 Commission on Farming and Food⁸ stated that assurance schemes were a useful means of industry self regulation. It recommended that AFS review the composition of the organization to ensure its independence and that other schemes are %ationalised+ behind the Red Tractor mark so that they all had equivalent standards. Indeed, the 2002 Commission on Farming and Food for England recommended that the Red Tractor scheme) become the baseline standard for all fresh food produced in England. Selected features of the AFS scheme were drawn upon to form Agency guidance on the design of assurance schemes, noting that the Agency added other points arising from their own review of these schemes in 2002.

The 2008 review found that schemes had made progress towards converging on the Agency¢ requirements⁹. Many schemes have been integrated into AFS, which is now owned by a consortium of National Farmers Union, Meat and Livestock Commission, Dairy UK and the British Retail Consortium.

⁸ The Policy Commission on the Future of Farming and Food was set up by the Prime Minister in August 2001, and its remit covered England. The report was a major contribution to a new strategy for sustainable, diverse, modern and adaptable farming, fully integrated with the rest of the food chain and taking into account the needs of the environment and rural economy. <u>http://www.defra.gov.uk/foodfarm/policy/sustainfarmfood/policycom.htm</u>

⁹ http://www.food.gov.uk/foodindustry/guidancenotes/labelregsguidance/foodassureguidance

The August 2010 update of the Agency simplification plan stated that:

We will consider the role of third party assurance schemes, including our understanding of their potential to reduce the burden of inspection, as part of the review of the Code of Practice, which is currently under way+¹⁰.

Whilst regulators cannot give up their enforcement role, they can direct resources on the basis of risk. As the Agency says, surance schemes can provide information that contributes to the determination of risk-based frequency inspection regimes and some can address official controls+. If an organisation is part of a third party assurance scheme, this may provide grounds for reduced inspection.

A number of schemes have already (in 2009) been included by the Local Authorities Coordinators of Regulatory Services (LACORS . now called Local Government Regulation) in a list which local authorities and other enforcement bodies may wish to take account of when planning inspections¹¹. These include:

- The Red Tractor Scheme and its modules covering:
 - Assured British Meat (ABM)
 - Assured British Pigs (ABP)
 - Assured Chicken Production (ACP)
 - Assured Dairy Farms¹²
 - Assured Combinable Crops Scheme (ACCS)
 - Assured Produce (AP)
- Genesis Quality Assurance (GQA)
- Quality Meat Scotland (QMS)
- Farm Assured Welsh Livestock (FAWL)

• Northern Ireland Beef/Lamb Farm Quality Assured Scheme (NIBLFQAS) Scottish Quality Cereals (SQC) has also been assessed as meeting the requirements of the legislation and an information exchange mechanism developed with the FSA Scotland. Also Annex V of the Feed Law Enforcement Code of Practice (Great Britain)¹³ which states (p85) that membership and compliance with the requirements of Feed Assurance Schemes+will mafluence the officerc judgement+of confidence in management.

It has been reported (Kirk-Wilson, 2008) that the AFS schemes alone now cover 65% to 90% of home production in the main commodities such as milk, chicken, pig, cereal, oilseed and pulse crop sectors, and over 65% for beef and lamb and horticultural produce.

The Agency has published some advice for the design of third party assurance schemes¹⁴. The advice includes having a &tandard setting board with a strong independent element+, & hazard-based approach to health and safety standard setting+, &nsure that inspections are carried out by a certification body which is independent from the standard-setting body+ and monitor scheme outputs to substantiate claims+.

¹⁰ http://www.food.gov.uk/multimedia/pdfs/stakeholderactionaug2010.pdf

¹¹ Memorandum of Understanding on liaison and information sharing between Assured Food Standards (AFS) and Local Authority co-ordinator of regulatory services (LACORS). January 2009. Unpublished.

¹² The Agency is consulting on recognition of Dairy Farm Assured at the time of reporting.

¹³ http://www.food.gov.uk/multimedia/pdfs/feedcodeofpractice.pdf

¹⁴ http://www.food.gov.uk/foodindustry/guidancenotes/labelregsguidance/foodassureguidance

The Agency wished to look more widely at the scope for recognition of membership of third party assurance schemes. Whilst the aforementioned list of assurance schemes cover the primary production of many commodities, this work aimed to explore the application of these schemes to other commodities and parts of the <u>farm</u> to forkqchain such as catering, processing and retail. As any schemes including an inspection of livestock also needed to consider animal health and welfare, this review also evaluated whether the schemes considered these points.

The Agency¢ June 2009 stakeholder event¹⁵ noted that whilst the Food Law Code of Practice allows membership of an accredited primary production assurance scheme to inform inspection frequency, it was questioned as to whether such factors were given enough weight in the risk rating system of Annex 5 to impact on inspection frequency of businesses from other parts of the food chain.

However, there may be gaps in the scope of standards or weaknesses in the assessment process. This raises the issue of determining which schemes can & arn recognition¹⁶+and the criteria required to be met, such as having UKAS¹⁷ accredited certification organisations and covering legislative food hygiene and animal welfare requirements. In addition, to enable a reduced inspection frequency based on risk, the results of audits may need to be shared with the regulator, raising the issue of data sharing and confidentiality.

This work aimed to provide the Agency with an extensive list of schemes operating in the UK food sector, a set of criteria against which to evaluate them with respect to earning recognition and an evaluation of these schemes. The work will enable the Agency to further develop policy regarding the role of third party assurance in reducing the burden of inspection by enabling it to 1) identify existing schemes that meet the criteria and 2) advise on issues for further consideration.

The ultimate question is whether there is evidence that the schemes are sufficiently developed or clearly have the potential to enable a reduction in inspection frequency or adoption of alternative interventions by local authorities and other enforcement bodies and whether this would be on a large enough scale to offer significant advantages in the UK. As part of this work, the researchers aimed to highlight schemes that may require further development but appear to have the potential to offer value and details of the aspects of their schemes requiring development.

1.2 Method

1.2.1 Identify schemes and acquire scheme summaries

Schemes were identified by:

- 1) Completing an internet search for schemes and relevant documentation and studies;
- Contacting (by phone and letter) associations such as the Food and Drink Federation, British Retail Consortium, British Hospitality Association, Nationwide Catering Association, National Farmers Union, Association of Catering Excellence,

¹⁵ http://www.food.gov.uk/multimedia/pdfs/stakeholderevent090626.pdf

¹⁶ Earned recognition is used here to refer to taking account of the approved status of a business when a regulator decides how frequent to inspect the business.

¹⁷ UKAS is a non-profit-distributing private company, limited by guarantee. It is the sole national accreditation body recognised by government to assess, against internationally agreed standards, organisations that provide certification, testing, inspection and calibration services. Accreditation by UKAS means that evaluators i.e. testing and calibration laboratories, certification and inspection bodies have been assessed against internationally recognised standards to demonstrate their competence, impartiality and performance capability. <u>http://www.ukas.com/about-accreditation/What_is_Accreditation/What_is_Accreditation.asp</u>

Chilled Food Association, Hospital Caterers Association, British Sandwich Association, National Association of Care Catering, Genesis QA and asking them to list known food assurance schemes;

- Directly contacting the organisations running schemes and certification organisations to acquire scheme information, such as copies of their standards;
- 4) Checking information on scheme websites, such as what information is provided for consumers and meaning of logos.
- 5) Consulting Agency staff.

The researchers collated documentation (especially standards) describing the schemes, their requirements and any outcome evaluations and issued a questionnaire to each scheme, as per section 7. The results for the questionnaire are summarised in section 9.4.

Short listing criteria

The criteria for including schemes in the review included requirements that the schemes:

- Operate in UK;
- Cover food safety and hygiene (including those schemes that also reference, in addition, animal health and welfare or animal feed assurance)
- Are operated by a third party (an organisation that is not owned or part of the assessed organisation or its customers).

Charter and trade association schemes that are analogous to certification schemes were included.

The following types of schemes were excluded from the full evaluation:

- Those that *only* cover animal welfare, organic status, quality, non-GMO, provenance . *without* also covering food safety and hygiene;
- In house schemes run by retailers on their suppliers (which by our definition are not third party).

The researchers excluded the following schemes from further evaluation based on these criteria, i.e. they address issues such as organic status and quality rather than food hygiene:

- 1. Freedom Foods . (animal welfare only);
- 2. Soil Association- (organic status only);
- 3. The Guild of Conservation Grade Producers (not food safety and hygiene)
- British Soft Drinks Association Fruit Juice Quality Control Scheme (authenticity only);
- 5. Cert ID Non-GMO Standard (GMO only)
- 6. Cert ID EU Regulatory Compliance Standard (GMO only)
- 7. Livestock Driver Competency Scheme . not an assurance scheme;
- 8. Game Shoot Standards Assurance Scheme (only shooting standards);
- 9. Scottish Organic Producers Association (SOPA)
- 10. Superior Quality Shetland Salmon (SQSS) . (only quality).
- 11. Tescos Natures Choice and other Tesco standards;
- 12. Marks and SpencersqFarm Assurance.

13. British Retail Consortium Global Standard for packaging and packaging materials (which covers the manufacture of food packaging rather than food processing itself).

The Linking Environment And Farming (LEAF) Marque was also evaluated although it subsequently was found to be an %add on+to farm assurance rather than aimed at food hygiene itself.

The International Air Transport Association (IATA) Catering Quality Assurance program (ICQA) said that their standard was in the being revised and advised that it should not be included in this review.

SAI Global, in addition to assessing against other standards, is also a standard setting body for the European Food Safety Inspection Service (EFSIS):

- EFSIS Gold;
- EFSIS Safe & Legal; and
- EFSIS Standard for Catering Establishments.

However, SAI Global stated that the EFSIS distribution standard has not been updated for seven years and that they were % hasing out+the other three EFSIS standards. SAI Global instead focuses on assessing business against other standards. Therefore, the EFSIS standards were not further evaluated in this study.

No information was received from FAMI-QS for the Quality and Safety System for Specialty Feed Ingredients and their Mixtures (FAMI-QS) to enable a full review of the European quality management standard for feed additives and premixture.

In addition, the European Pet Food Industry Federation (FEDIAF) was not identified within the timescale of this evaluation.

Shortlisted schemes are shown in Table 9. It should be noted that, although the aim was to include a representative and extensive range of schemes in the review, the research work did not necessarily identify every scheme and did not intend to have comprehensive coverage of every scheme.

1.2.2 Define evaluation criteria

A draft set of criteria (shown in section 6) was developed and the Agency was consulted to review and agree these criteria. An extensive set of criteria were developed which covered previous Agency research and advice and Commission of the European Union publication and to ensure this evaluation was comprehensive, as elaborated below.

Rationale for criteria

These criteria were developed solely for the sake of enabling the researchers to evaluate third party assurance schemes and do not necessarily represent current FSA opinion or policy.

The researchersqcriteria needed to address whether the Food Standards Agency, local authorities and other enforcement bodies can give recognition to food businesses that have third party assurance within local authoritiesqand other enforcement organisationsq risk based inspection programmes. Therefore, the scheme should, at a minimum, assure conformance with relevant food safety and hygiene law. In instances where schemes are applied to operations involving livestock it was also required that animal health and welfare requirements were included as a minimum before these schemes might be considered to influence a change in the intervention approach or frequency. At the same time in the

opinion of the researchers, for the FSA to give recognition to the schemes, they should adopt principles of effective enforcement, including:

- Transparency;
- Consistency (across assessments) in requirements and decision making;
- Proportionate in what they require (risk based);
- Accountable . allowing firms to appeal decisions and hold the approval body % account+.

For the FSA, local authorities and other enforcement organisations to take account of these schemes in setting inspections frequencies and related decisions on their resources, schemes should be:

- Sustainable . by being self funding;
- Independent;
- Demonstrably meet high standards of governance.

For the FSA to be able to take account of approved status of businesses the local authorities and other enforcement bodies need to know which businesses have been approved, whose approval has lapsed (especially due to non-conformity) and whether any major non-conformance that poses an imminent serious risk has been detected.

Finally it should be noted that the 2002 Commission on Farming and Food¹⁸ recommended that the Red Tractor scheme should become the baseline standard for all fresh food produced in England. Therefore, the researchers also took account of their recommendations when developing the evaluation criteria noted here.

Regulations, standards and other sources of criteria

The evaluation criteria were developed by reference to:

- The Food Safety Act (1990);
- The Food Hygiene Regulations (2006);
- Accreditation to EN45011;
- Regulation (EC) No. 882/2004 on Official Feed and Food Controls;
- Regulation (EC) No. 852/2004 on the Hygiene of Foodstuffs;
- Regulation (EC) No. 853/2004 on Specific Hygiene Rules for Products of Animal Origin;
- The Feed (Hygiene and Enforcement) (England) Regulations 2005 and associated Feed Law Enforcement Code of Practice (Great Britain);
- Review of the criteria applied in the Defra study % critique of assurance schemes+¹⁹, which focused on environmental management and animal welfare, and to a lesser extent food safety;
- Review of the criteria applied in the 2002 FSA study Review of food assurance schemes+.²⁰

¹⁸ Commission on Farming and Food, 2002. <u>http://www.defra.gov.uk/foodfarm/policy/sustainfarmfood/policycom.htm</u>

¹⁹ A critique of assurance schemes. K Lewis, J Tzilivakis, D Warner, A Green and A Coles. May 2008. Report for Defra.

²⁰ Review of food assurance schemes. Ruth Kirk Patrick. June 2002. Report for the FSA

- Food Law Code of Practice²¹:
- Global Food Safety Initiative guidance on schemes;
- Reviewed previous research and opinions about assurance schemes in other sectors, such as Fair Trade, Freedom Foods, organic produce (Soil Association) and environmental stewardship (LEAF Marque);
- Reviewed previous Agency research and reviews in this area, including its July 2002 position statement²²;
- Authorisation conditions for self assurance schemes in other sectors, including building control self certification schemes for competent persons (which have a set of official authorisation conditions stipulated by the Department for Communities and Local Government);
- Commission of the European Communities guidance on the operation of voluntary certification schemes for agricultural products²³

The Commission of the European Communities developed the latter guidelines based on comments from stakeholders. The guidelines aimed to avoid consumer confusion, increase transparency, ensure compliance with EU internal market rules and reduce administrative burden on farmers. The guidelines cover:

- Rules related to the operation of the scheme, e.g. internal EU market;
- Rules related to content of the scheme . such as the need to cite and be consistent with specific legislation;
- Rules regarding conformity assessment, particularly that certification bodies having EN 45011/ISO 65 or ISO 17021 accreditation and should be an independent body;
- Scheme development, such as having a supervisory structure including all concerned stakeholders, requirements developed by technical experts, have a continuous development process and all requirements to be published;
- All claims of scheme benefits to be stated and substantiated;
- Inspections should have documented procedures, inspection frequency should take account of previous inspection results, inherent risks posed by products and processes, should be at short notice or unannounced, and have procedures for dealing with non-compliance including criteria for withdrawal of the certificate and reporting to the official enforcement body.
- Inspectors should be impartial, qualified and competent, and have relevant sector knowledge.

These guidelines are very similar to those previously noted by the Food Standards Agency.

Overview of criteria

The criteria covered:

1. Approach to setting standards;

²¹ http://www.food.gov.uk/multimedia/pdfs/codeofpracticeeng.pdf

²² <u>http://www.food.gov.uk/multimedia/pdfs/fsaposition.pdf</u>

²³ Commission of the European Communities (2010). EU Best practice guidelines for the operation of voluntary certification schemes relating to agricultural products and foodstuffs. Official Journal of the European Union , 16.12.2010, C 341/5 <u>http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:341:0005:0011:EN:PDF</u>

- 2. Standards setting body
- 3. Scope of standard
- 4. Approval Bodies
- 5. Assessor authorisation
- 6. Assessment process
- 7. Responding to non-conformances
- 8. Communicating with Local Authority or other relevant enforcement authority
- 9. Information provided to consumers about the scheme

The criteria are shown in Appendix A at section 6.

Essential versus important criteria

Some of these criteria may be regarded as sessential+, whilst others may be regarded as sential+. For example:

- It is essential that the schemes require application of suitable food hygiene and safety procedures by assured firms;
- It is % mportant+that the standards setting committee has an independent chair.

It is suggested by the researchers that the following criteria are essential:

- Scope of standard . criteria 19 and 20 which cover:
 - The standard should incorporate legislative requirements as a minimum and those from industry Codes of Practice and;
 - Animal health and welfare requirements should be included where appropriate and relevant (producers, distribution and abattoirs) and also be based on (as a minimum) a recognised code of practice and legislative requirements.
- Assessor Authorisation . criteria 26 and 27 which cover competence requirements for assessors and selection procedures;
- Assessment process . criteria 28 to 35 covering the frequency of assessment, unannounced visits, onsite assessment methods
- Responding to non-conformances, criteria 36 specifically guidance regarding the action to be taken for each type and severity of non-conformance.

Whilst Communicating with Local Authorities and other relevant enforcement bodies+is essential for implementing earned recognition, this can be viewed as an essential implementation issue once a scheme has been shortlisted for earned recognition.

These criteria are suggested to be essential as they relate to the reliability and validity of the standard and the assessment process. For example, if the standard does not adequately cover food hygiene, it would appear inappropriate to award it recognition irrespective of whether the standard setting process meets the criteria. On the other hand, if the scope of the standard and the assessment process are appropriate, it would appear inappropriate to withhold recognition due to the scheme not satisfying criteria regarding how the standard was developed.

The researchers would suggest that the extent and manner in which schemes should achieve the important criteria would be the matter of FSA-scheme discussions but could be a consideration in the extent to which earned recognition is awarded to approved businesses. For example, the extent to which inspection frequencies are modified could be related to the degree of confidence placed in the schemes, indicated by the extent to which they satisfy the important criteria.

1.2.3 Compare schemes against criteria

Each scheme was rated against each criterion. The rating used the following scale:

- 0) Does not address criteria
- 1) Partly fulfils criteria
- 2) Totally fulfils criteria
- 3) Exceeds criteria

A commentary was provided on each scheme; highlighting features that do not meet the criteria (see sections 0, 2.3.6 and 9.5). Overall results were summarised by mapping schemes out across food products and along the food chain (as per section 2.1). Within this an indication was given as to whether there are gaps in schemes for certain sectors or foodstuffs, and whether there are common weaknesses in schemes.

1.2.4 Review evidence on outcomes of schemes, especially food law compliance

This was a rapid review of published studies, limited to evidence regarding the outcomes of schemes in respect of compliance. The following were completed:

- A rapid internet search for evaluations of third party food assurance schemes using key words;
- A key word search selected online journal databases, namely Emeraldinsight, ScienceDirect, Elsevier, Ingentaconnect, Institute of Food Science & Technology and selected journals:
 - British Food Journal;
 - Food Control;
 - International Journal of Food Science & Technology;
 - Journal of Food Science;
 - International Journal of Food Microbiology.
- A search the UKOP which covers over 2000 public bodies;
- A search of the Food Standards Agency website.

Key words used for the search are shown in Table 2.

Table 2: Key words used for rapid evidence search

"Evaluation AND food AND assurance	"Evaluation AND farm AND assurance
scheme"	scheme"
"Evaluation AND food safety AND	
assurance scheme"	farm assurance AND research
	food safety management certification AND
"Evaluating food assurance schemes"	research
"Evaluation AND food safety scheme"	food safety certification AND research
Evaluation of food safety scheme	food safety assurance AND research
Evaluation AND food safety certification	food safety standards AND research
	Evaluating food assurance schemes AND
Evaluation of food safety assurance scheme	food safety
Assured British Meat AND evaluation	food safety scheme evaluation

Assured Chicken Production AND	
evaluation	food safety AND assurance schemes
"Farm Assured British Beef AND evaluation"	food assurance schemes
Farm Assured British Beef AND evaluation	food assurance scheme AND evaluation
evaluation AND food certification	Mannings, L.,Baines,R.N +food safety
evaluation AND food safety AND	Mannings, L.,Baines,R.N +assurance
certification*	schemes
evaluation AND food* safety AND	Kathy A. Lewis*, Andrew Green, John
certification scheme*	Tzilivakis and Douglas J. Warner
evaluation AND food* AND certification	"Evaluated Food safety AND assurance
scheme*	schemes"
	Evaluated Food safety AND assurance
"Food safety AND assurance schemes"	schemes

Very few studies were found regarding the impact of farm assurance schemes on compliance or conformance to food hygiene standards. Evidence was sought from the scheme operators in our questionnaire. Any cited studies were included in the review, as noted in section 10.

Inclusion criteria included studies from 1990 onwards (most were after 2000), from UK, Europe, North America, Australia and New Zealand, relating to third party farm assurance and evaluation on outcomes with respect to food safety, hygiene or animal welfare.

A rapid critical review of the evidence was completed using an adapted set of weight of evidence criteria cited by the Government Social Science Unit, i.e. the Maryland scale. This scale grades studies that evaluate interventions in respect of their robustness, such as whether they report before and after measures and have control groups. These were adapted (see Table 5) to cover qualitative and survey based studies in addition to evaluations.

A synthesis of the evidence (see section 3) was provided regarding the extent to which there is evidence that third party assurance schemes have been associated with food law compliance and reduced incident rates.

2 EVALUATION OF SCHEMES

2.1 Introduction

This section of the report first maps the number of schemes found in this study against sectors and products and then summarises the evaluation of the schemes both generally and one by one. Appendix B provides brief summaries of standards, Appendix C maps the standards against food hygiene and animal welfare legislation and Appendix D notes where schemes do not fully meet the evaluation criteria.

2.2 Mapping of standards by product and sector

The number of % tandards+is shown by type of product in Table 3 and by sector in Figure 1. The number of schemes per sector includes each of the standards produced by, for example, AFS. Each standard was counted separately, such as AFS is modules, giving 66 standards in total. It was found that:

- The vast majority of the schemes focus on livestock feeds, primary production, processing and transport, with few schemes specific to catering, hospitality or retail;
- Whilst no schemes were exclusively designed for slaughter and cutting operations, many of the generic standards cover these activities;
- The product specific schemes do cover the main categories of food such as meat, arable produce and eggs;
- Product specific schemes could not be identified for some categories of food stuffs such as spices, nuts, seafood²⁴, fats and oils, sweeteners, importers of produce (excepting schemes operated in countries of origin);
- Fifteen standards schemes are not product specific . which are mainly adopted for primary production and processing rather than catering or retail.

The low level of assurance in catering and retail is consistent with the conclusion of Monaghan et al (2008) who found that no supplier mentioned the application of assurance schemes to products such as salads used in fast food meals.

Figure 1 presents the number of standards for each part of the food chain, split roughly into feed/fertiliser, primary production, processing and retail. It is not presented per product because the product specific schemes are focused on primary production and the generic schemes cover processing and distribution of all products. Whilst generic standards may potentially cover any food production activity, feedback from scheme operators indicated they tend to implemented mostly by processors. The generic standards also have requirements for slaughter activities. The distribution and storage standards are generic across products and parts of the food chain. The size of each box in Figure 1 roughly represents the number of standards in that area. As noted above, standards focus on production and processing rather than catering and retail activities.

Fish production and processing

The initial search did not identify any UK standards specifically covering fish production and processing. A brief double check was completed to identify schemes that cover fish. Two other schemes were identified and are as discussed below. Whilst these schemes

²⁴ BAP standards (owned by the Global Aquaculture Alliance) do cover seafood but are not necessarily applicable to UK products. A BAP standard for farmed salmon has been developed and is at final draft stage (January 2011) and may be pertinent to the UK.

were not assessed in full, an initial review suggested that they too could be considered with respect to earned recognition.

Seafish Responsible Fishing Scheme

The Sea Fish Industry Authority Responsible Fishing Scheme was identified after the completion of the evaluation. This scheme does cover food hygiene. It cites good practice guidance aligned to the Food Safety (Fishery Products & Live Shellfish) (Hygiene) Regulations 1998 and covers fish hygiene onboard vessels, during landing and when on display. Environmental Health Officers are responsible for enforcement of Food Safety (Fishery Products & Live Shellfish) (Hygiene) Regulations 1998 with the Agency as the competent authority for these regulations. Responsible Fishing Scheme has 602 registered vessels at the time of reporting who have been audited by Seafish and awarded a certificate. The scheme also covers sustainable fishing practices.

The Sea Fish Industry Authority (Seafish) was established under the Fisheries Act 1981 and is funded from a statutory levy on all fish, shellfish and seafood products landed, imported or cultivated in the UK.

Food Certification Ltd (FCI)

Food Certification (Scotland) Ltd is an UKAS accredited third party certification body with EN45011 that certificates aquaculture, fisheries and seafood products. It assesses against the Integrated Aquaculture Assurance standard that are available for farmed salmonid and shrimp production. FCI is also accredited and approved by the BRC to provide certification of fish and seafood related products, noting that BRC Global Standard for Food Safety is typically applied to processors rather than producers.

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Table 3: Number of standards by product

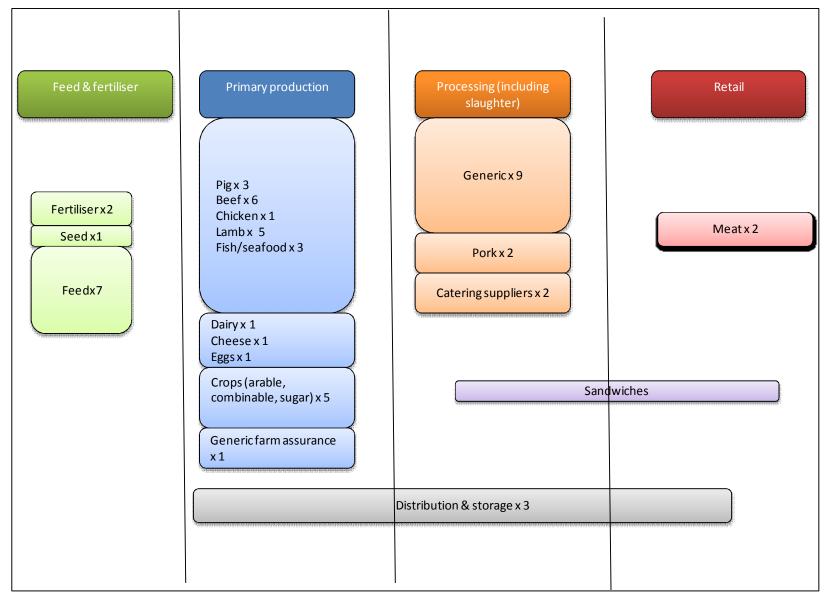
Product(s)	Name of schemes	Number of standards	Product(s)	Name of standards	Number of schemes
Generic	 BRC Global Standard Food Safety; IFS Food Version 5; IFS Logistics Synergy 22000; ISO 22000; Food Safety System Certification 22000 (FS22000) GLOBALG.A.P Integrated Farm Assurance STS Solutions x 6: Code of Practice 2008 Small and Regional; Code of Practice 2007 Public Sector (current revision 2010 with UKAS for approval); Code of Practice (Non Public Sector); 	16	Feed	 Universal Feed Assurance Scheme (UFAS), Feed Materials Assurance Scheme (FEMAS), The GAFTA Trade Assurance Scheme (GTAS) GLOBALG.A.P Compound Feed Manufacturing Standard, Assured Land Based (Mobile Feed Mixing and Processing) Contractor scheme. FAMI-QS European quality management standard for feed additives and premixture quality system. GMP+ Feed Assurance Scheme (GMP+ FSA) 	7
	 Code of Practice 2009 Healthcare & Catering; Code of Practice 2009 Catering Multiple Sites; Code of Practice 2009 Catering Safe And Local Supplier Approval (SALSA) NSF . Cmi. Wholesaling, Storage & Distribution NSF-Cmi Due Diligence Standard . Food 		Pig	 Red Tractor Assured British Pigs Genesis QA (Pig Farm Assurance); British Meat Processors Association x 4: British Quality Assured Pork Charter Quality British Bacon; Charter Quality British Ham British Quality Assured Pork Sausage 	6

R2 V8 FCA

Product(s)	Name of schemes	Number of standards	Product(s)	Name of standards	Number of schemes
Fertiliser	Biofertiliser Certification Scheme (PAS110 and ADQP)	2	Dairy	Red Tractor Farms Assurance (Assured Dairy Farms)	1
	Fertiliser Industry Assurance Scheme (FIAS).		Cheese	SALSA plus SCA (Specialist Cheesemaker Association)	1
Seeds	AssuredLand Based (Mobile seed Processing) Contractor scheme.	1	Eggs	British Lion Quality eggs	1
Malt	The Assured UK Malt Technical Standard	1	Sugar beet	 Genesis QA (Crops and sugar beat) 	1
Beef	 Northern Ireland Beef and Lamb Farm Quality Assurance Scheme Farm Assured Welsh Livestock Quality Meat Scotland Farm Assurance Red Tractor Assured British Meat 	6	Combinable crops	 Scottish Quality Farm Assured Combinable Crops (SQC) Red Tractor Assured combinable crops scheme Trade Assurance Scheme for Combinable Crops (TASCC). 	3
	EBLEX Quality Standard SchemeGenesis QA (Beef and Lamb)		Fresh produce	Red Tractor Farms Assurance (Assured Produce)	1
Lamb	Northern Ireland Beef and Lamb Farm Quality Assurance Scheme	5	Plants	GLOBALG.A.P, Plant Propagation Material standards	1
	 Farm Assured Welsh Livestock Red Tractor Assured British Meat EBLEX Quality Standard Scheme Genesis QA (Beef and Lamb) 		Seafood/ Fish	 BAP (6 species specific) Sea Fish Industry Authority Responsible Fishing Scheme Food Certification (Scotland) Ltd 	3
Chicken	Red Tractor Assured Chicken Production	1	Sandwiches	British Sandwich Association Accreditation Scheme	1
Venison	Scottish Quality Wild Venison	1	Organic	Organic Farmers & Growers	3
Meat (all)	 National Association of Catering Butchers Q Guild Hygiene and Quality Audit 	2	production	Standards Welsh Organic Scheme Leaf Marque Standard Version 9 	
Livestock	Livestock Transport Approval	1	Agricultural operations	Assured Land Based (Agricultural Operations) Contractor scheme.	1

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Figure 1: Standards per part of the food chain



2.3 Evaluation of schemes

In many cases one organisation offered more than one standard. Whilst each standard was compared to the legislation, the evaluation was completed per scheme. This enabled the evaluation to consider the process of designing and updating standards, the assessment process and associated points such as provision of information to consumers, as well as the content of the standards.

2.3.1 Positive points

Some key positive findings are noted below. The full results for the questionnaire are given in section 9.4.

Assessment bodies

The schemes do tend to have clear requirements regarding the competence of assessors. Some key findings from the evaluation include:

- 83% of schemes require that approval bodies have EN45011 or equivalent.
- 81% require a minimum number of years experience, 69% require auditors to complete a certificated course in auditing, 83% require a minimum number of audits to be completed with another auditor prior to being & gigned off+and 67% must complete a minimum number of audits each year to maintain their authorisation.

Assessment process

The schemes do tend to have well established approaches to conducting assessments of businesses. Some key findings from the evaluation include

- All schemes require that site visits include visual inspection, assessment of paper work and for assessment results to be documented, with 94% also observing activities, 78% assessing knowledge of managers/staff, 75% require food businesses to advise them of any enforcement action or complaint against them, 69%²⁵ review use of food sample results completed for assessed businesses and 89% using checklists.
- 78% provide written guidance on action to be taken by assessment bodies for each type and severity of non-conformance, 94% grade non-conformance and provide examples of these, 72% denote key aspects of standards and 97% state the time period for corrective action and consequences of failing to comply.
- Verification of correction of non-conformance is by site visits, documentary evidence, with 56% also accepting third party letters such as veterinarian letters.
- 97% stated they had an appeals process for businesses to appeal against loss of their approved status.

Alignment of standards to food hygiene regulations

Twenty two organisations (excluding those previously recognised by the Agency) have issued (at least 29) standards that were assessed as adequately covering food safety and hygiene regulations (a rating of 2 on our scale of 0 to 3). 83% of the respondents stated they use a HACCP approach to developing the standard and regularly check it is up to date. Many of the standards covering primary production (farming) of meat or other animal products also cover animal health and welfare. The generic food safety management standards tend to be applied to processing and do not cover animal health and welfare.

²⁵ Excluding respondents who said this was not applicable to their scheme and blank responses.

Composition of the standards setting bodies

Standards setting bodies are made up of qualified persons and have a wide range of representation;

- 75% of standard setting bodies had an independent chair.
- Most (86%) include retailers or processors, 81% include the assured organisations and 53% include consumers. Regulators were represented at only 42% of standard setting bodies, which was an area that could be given further consideration.

Short notice and unannounced visits

It was noted that:

- 56% of the respondents noted that they do carry out a few (<20% of visits) short notice visits, 8% some (21% to 40%) and 9% more than this;
- 46% of schemes also stating they carry out a few (<20% of visits) or some (21% to 40% of visits) unannounced visits.

Thus, there was a moderate level of unannounced and short notice visits.

2.3.2 Points that could require further consideration.

Some findings that may require further consideration are noted below and discussed further at section 4.

Risk based assessment frequencies

89% of respondents stated that they complete assessments of business at a fixed interval (which is a common practice for assessment of management standards and consistent with previous Agency advice) rather than a variable frequency based on some form of risk assessment. 64% stated a frequency of one every 12 months, 9% every 18 months and others stated every 6 months or 12 to 18 months depending on the product.

However, whilst this does not match the risk based approach to setting inspection frequencies, it does not mean that recognition cannot be earned for an annual assessment. In addition, whilst the risk based inspection guidance in Food Law Code of Practice gives frequencies of 6 months, 12 months and less, most are C risk businesses with 18 month frequencies. Therefore, most schemes will assess business at a frequency similar to that applied by local authorities and other enforcement organisations.

Four schemes stated that they increase the frequency of assessment for businesses found to have conformance problems, such as increasing the frequency to six months, or from 18 months to 12 months. This is similar to the assessment of management competence and compliance in the hygiene rating schemes applied by inspectors. Thus, some schemes do have an element of performance based risk assessment+when setting assessment frequencies.

Using food sample test results to verify product standards

Many standards cite an expectation that sampling and testing is undertaken by the food business as a means of verifying that product standards have been met. 50% of the survey respondents stated that they review the results of food sample test results completed by or for third parties. If you exclude respondents that said this was not applicable to their scheme and none responses, this rose to 69%. Thus, some schemes did not make use of food sample test results.

Feedback indicated that assessors consider the businesses test results to evaluate whether the business is undertaking sampling and testing and whether the organisation

doing the testing can be relied upon (e.g. is the laboratory part of an assurance scheme e.g. ISO17025) and whether the food business evaluates the results and acts on them appropriately to determine whether the business is effectively self regulating or merely going through the motions.

The schemes:

- Do not include testing of food samples by the approval organisation;
- Do not use the results of food sample tests (completed by or for businesses) to monitor and verify the product standards achieved by members as a whole, such as recording and tracking food sample test results for members as a whole over a period of years.

It was clear from the rapid review of outcome evidence in section 3 of this report that the impact of some schemes has been assessed by use of Agency surveillance results in a number of cases. Also, feedback from one major scheme indicated that they took account of previous surveillance results in setting the standard. However, the conduct of surveillance is in most cases completed by the Agency rather than the standards setting bodies, and does not necessarily cover all of the standards.

Communicating about serious or imminent risks

Only 28% of the schemes said they advise enforcers in the event the assessor finds serious non-conformances representing an imminent risk to public or animal health that has not already been rectified by the assessed business.

Few (39%) schemes stated that they had an effective process to alert businesses to failings which could be found in other food businesses.

Potential commercial pressures

It was noted that:

- 58% of approval bodies stated that they are financed by the businesses they assess, through fees, and are mostly profit making private enterprises;
- At least about half being trade associations/councils or not for profit organisations such as a commission;
- Seven (20%) said they are funded by membership fees (some respondents did not answer this question).

The observation that the majority of approval organisations are funded by the assessed organisations raises the issue of potential conflict of interest or competitive pressures on assessors, i.e. do they encounter pressure to grant approval to retain customers? The issue of commercial pressures is discussed further at section 4.1.4.

Independence of assessors

In five cases the standard is developed and assessments are completed by the same body, including:

- SALSA;
- STS Solutions; STS Certification Scheme (Small & Regional), Code of Practice and Technical Standard for Food Processors and Suppliers to the Public Sector v3 (September 2007) and Code of Practice and Technical Standard for Food processors and Suppliers to the non Public Sector (2007);
- Organic Farmers and Growers;

- British Sandwich Association . where an audit from the BSA is a condition of BSA membership;
- NSF-CMI²⁶ Due DiligenceqScheme.

It may be noted though that:

- All SALSA Auditors must have been accepted by the IFST Register of Professional Food Auditors and Mentors (RPFAM);
- NSF-CMi Certification is accredited by the United Kingdom Accreditation Service (UKAS) to EN45011 and provides assessment of many standards such as the AFS family of standards.

In all other cases assessment is reported to be completed by a separate organisation, usually a UKAS accredited approval organisation.

Reporting of assessment results and evidence for claims made by standards

Whilst most schemes provide information on the scope of the scheme and its requirements on their website, few (17%) report assessment results such as the proportion of assessments with non-conformance or cite evidence of claimed food safety benefits (42%).

The first four points are typical to standard setting and assessment processes. They are highlighted here in the context of reducing the frequency of inspection due to the conduct of assessments. That is, the schemes do not necessarily carry out some of the functions included within enforcersqinspection processes, such as checking food samples, alerting businesses to common safety issues. Obviously inspectors are not paid by businesses whilst assessors are. Whilst this does not necessarily create potential conflicts of interest for assessors, it does raise the issue of competitive pressures on approval organisations.

Very few of the schemes (excepting those previously recognised by the Agency) have arrangements for communicating with local authorities or other enforcement organisation, with the exception of Assured Food Standards. The absence of a data sharing agreement with the Agency does not in itself comprise a deficiency but does prevent local authorities and other enforcement organisations from implementing earned recognition.

2.3.3 Average rating by sector

Figure 2 provides the average overall score for schemes in each sector. Overall the average score for schemes by sector is between 1 and 2, with no clear pattern between the sectors. It was considered more meaningful therefore to consider the results per scheme.

²⁶ Standard setting body is a Technical Advisory Committee of stakeholders, specifiers and independents. Audits are conducted by NSF-Cmi Ltd. Certification is awarded by NSF-Cmi Certification Ltd.

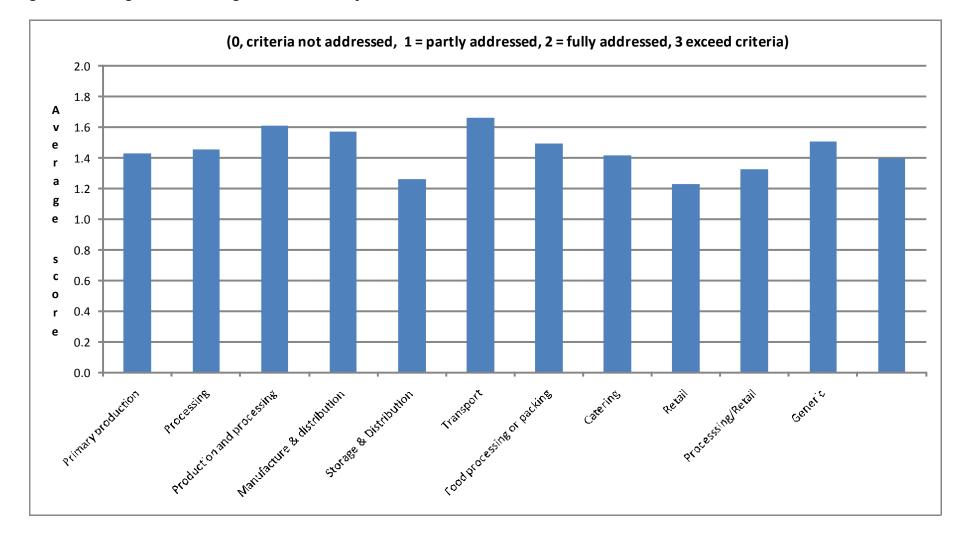


Figure 2: Average overall ratings for schemes by sector

2.3.4 Number of essential and important criteria totally fulfilled per scheme

Table 4 summarises the number of Essential and Important criteria totally fulfilled or exceeded by each scheme. In most cases the evaluation was based on the questionnaire responses provided by respondents. The assessment of whether the standards addressed food hygiene and animal health/welfare regulations was determined by the researchers comparing the standards against the regulations. This comparison of schemes against the criteria is shown in section 9.2.

In some cases respondents did not answer all points on the questionnaire. Where possible the researchers verified and fill in answers by checking the information provided on the websites of schemes. The number of Important criteria that could not be evaluated is shown in brackets in the right hand column of Table 4. With the exceptions of FAMI-QS and Genesis QA, all Essential criteria could be assessed for the schemes.

Those standards that were assessed as not covering food hygiene regulations are grouped together and were not recommended to be considered for recognition in setting food hygiene inspection frequencies.

The ISO 22000 standard was assessed as meeting 7 of the essential criteria and 20 of the Important criteria when considered in isolation of pre-requisite standards. As ISO 22000 is applied with pre-requisites (as discussed further in section 2.3.6) this was not considered to be significant.

In many cases standards did not address animal health or welfare. This is noted as (AW) in the table. In most cases animal welfare was not relevant to the activity, such as crop production.

The Essential criteria that were not fully met are discussed further at section 2.3.6 and the Important criteria are discussed at section 9.5.

Scheme Owner	Essential criteria out of 11	Important criteria out of 35
British Retail Consortium - Global Food Standard v5	10 (AW)	20
FSSC - FSSC 22000	10 (AW)	24
Synergy 22000	11	27
IFS - International Food Standard v5	10 (AW)	26 (2)
STS Solutions - Small & Regional Certification Scheme; Code of Practice and Technical Standard for Food processors and Suppliers to the non Public Sector (2007). Code of Practice and Technical Standard for Food Processors and Suppliers to the Public Sector v3	10 (AW)	21 (1)
SALSA - SALSA + SCA Standard and SALSA	10 (AW)	24 (1)
NSF-CMi - Đue DiligenceqStandard	9 (AW)	13 (2)
AIC - Universal Feed Assurance Scheme (UFAS), Trade Assurance Scheme for Combinable Crops	9 (AW)	23

Table 4: Number of essential and important criteria totally fulfilled per standard

Scheme Owner	Essential criteria out of 11	Important criteria out of 35
(TASCC), Feed Materials Assurance Scheme (FEMAS), Fertiliser Industry Assurance Scheme (FIAS).		
The Grain and Feed Trade Association - The GAFTA Trade Assurance Scheme (GTAS)	9 (AW)	24
FAMI- QS	4 ²⁷ (AW)	19 ²⁸ (11)
GMP+FAS - GMP+ Feed Assurance Scheme	10 (AW)	27
GlobalG.A.P Integrated Farm Assurance v3, Compound Feed Manufacturing Standard, Plant Propagation Material standards	9 (AW)	21 (1)
Scottish Quality - Farm Assurance Quality Crops	7 (AW)	23
Scottish Quality - Wild Venison	10	23
Guild of Q Butchers . Guild of Q Butchers Standard	7 (AW)	19
English Beef & Lamb Executive -(EBLEX) Quality Standard Mark*	8	24
British Meat Processors Association - British Quality Assured Pork (also Sausage, Bacon and Ham standards)	9	23 (2)
National Association of Catering Butchers (NACB)	9	21
British Egg Industry Council - British Lion Egg	10	28
British Sandwich Association	8 (AW)	19 (1)
Maltsters' Association of Great Britain - The Assured UK Malt Technical Standard	10 (AW)	20
Best Aquacultural Practices (various standards)	10 ²⁹	29
NSF CMI Wholesale, distribution and storage	9	20
Schemes where the standard did not fully address food hygiene regulations		
Livestock Transport Assurance Scheme	9	18 (8)
Linking Environment & Farming (LEAF)	8	23
Assured Land Based Contractor	5	19 (3)
Welsh Organic Scheme.	10	17
Organic Farmers & Growers Certification	8	20
Biofertiliser Certification Scheme	7	21 (3)

²⁷ A full evaluation of FAMI-QS was not possible as a questionnaire was not completed. The incomplete evaluation was based on a review of information from their website.

 $^{^{\}ensuremath{^{28}}}$ Incomplete response to the questionnaire meant that some criteria could not be assessed.

²⁹ The mapping against UK legislation did note some gaps that would require further consideration.

Scheme Owner	Essential criteria out of 11	Important criteria out of 35
Previously recognised schemes		
Red Tractor . Assured Farm Assurance	9	31
Northern Ireland Beef and Lamb QAS	10	26
Farm Assured Welsh Lamb	10	24
Scottish Quality - Farm Assurance Quality Meat	10	24
Genesis QA	6*	13 (16)

2.3.5 Discussion of previously recognised schemes

As these standards have previously been assessed by the Agency, we did not map them against legislation in this study in section 9.2. We did ask them to complete our questionnaire to provide an update on their processes.

AFS, NIBLFQAS, FAWL, QMS

The Assured Food Standards (AFS) schemes³⁰ were assessed as a whole. Consistent with previous reviews of the AFS and NIBLFQAS schemes they fully satisfied most parts of the Essential Criteria including the scope of the standard (it also covers animal welfare), assessor authorisation (they are managed in accordance with EN45011), their assessment process including responding to non-conformances (with two exceptions) and they have a data sharing process with enforcement organisations. The standards generally cover Traceability & Integrity, Staff & Contractors, Vermin Control, Environmental Protection and Contamination Control, Documents and Procedures, Animal Health & Welfare, Animal Medicines & Biosecurity, Feed & Water, Housing, Shelter and Handling Facilities, Casualty & Fallen Stock, Livestock Transport and other topics specific to the agricultural sector covered in the standard. Approval organisations include SAI-Global, PAI, NIFCC, NSF-CMi, and SFQC who are accredited to EN45011/ISO Guide 65.

The two exceptions were:

- They do not use risk assessment to decide on the frequency of assessments- which is consistent with previous Agency advice on food safety assurance schemes but does not match current Agency guidance for enforcement organisations on risk based inspection;
- There is no procedure to advise enforcers in the event the assessor finds serious non-conformances representing a series or imminent risk to public or animal health that has not already been rectified by the assessed business³¹. Whilst enforcers can assess an online database this does not identify imminent risks or provide information on non-conformances. This is also true for other schemes.

³⁰ Combinable crops, assured produce, chicken, pig, beef and lamb, milk

³¹ Most approval bodies have procedures that the assessor is required to communicate major non-conformance to the approval body. The approval body should ensure that appropriate action is taken and the issue is not left to be resolved after the event. The issue is that enforcers are not currently part of the process and will only see the outcome of the certification decision on an online database, where one exists.

AFS/NIBLFQAS (beef and lamb) also scored well in respect of providing information to consumers (QMS less so), the composition of the standard setting body and the standard setting process. It is also pertinent to note that they both carried out some unannounced and short notice assessments.

It was noted that FAWL (beef and lamb) and QMS (beef and lamb) do not require that assessors to complete a certificated course in auditing, whilst AFS, and NIBLFQAS do not require a relevant degree which resulted in a partly metgrating for assessor qualifications.

Genesis QA

The Genesis QA standards (pig, lamb, beef, dairy, arable & sugar beet) have been granted æquivalenceqto AFS and those meeting satisfactory standards are permitted to use the Red Tractorqlogo. Our review did indicate that the standard covered relevant food safety and hygiene legislation. Product Authentication Inspectorate Ltd (PAI) is their certification partner and is an independent UKAS accredited certification organisation to EN45011/ISO Guide 65. PAI also assess against many other standards such as BRC, ABM Standards for Abattoirs and many others whose assessment processes were assessed as meeting our essential criteria.

2.3.6 Other schemes assessed as potentially meeting Essential criteria

The mapping of the standards against legislation is shown for the other schemes in Appendix C at section 9.

Twenty two of the schemes (at least 29 standards) evaluated here were assessed as partly or fully fulfilling the Essential criteria. Few, if any of the schemes, including previously recognised ones, have risk based inspection frequencies, have a system to advise local authorities or other enforcement organisations of imminent risks or have a data sharing arrangement with local authorities and other enforcement organisations. It was judged by the researchers that these points do not necessarily constitute grounds to withhold earned recognition of the schemes, although data sharing would need to be implemented if local authorities and other enforcement organisations are to take account of approved status when deciding on inspection frequencies.

The overriding principle was that if the standard adequately addressed food safety and hygiene and the process of assessment met essential criteria, it could be considered for earned recognition.

Also, whilst many schemes do not cover animal welfare this does not preclude earned recognition for those parts of the food chain where animal welfare is not applicable.

Generic schemes

A number of schemes are not specific to any one product but lay out requirements for food safety and hygiene generically for food production. These were considered sufficient as they do require compliance with all relevant legislation even if the standard does not list all food hygiene regulations.

British Retail Consortium Global Standard for Food Safety

Food businesses wishing to demonstrate BRC standard conformance require certification from a certification body operating quality systems to EN45011/ISO Guide 65. Where the Certification Body wishes to ±adgeqthe standard with their logo BRC license the use of the standard to third party £ertification Bodiesqwho must be accredited by their national Accreditation Body, i.e. UKAS in the UK. The standard is comprehensive, covering quality and food safety management systems in addition to legal requirements. The standard covers all UK legislative requirements in EC852/2005 but does not specifically address

some of the requirements in EC853/2005. The BRC standards were rated as fully meeting the Essential criteria. The BRC standard fully met 20 of the 35 important criteria.

The only Essential criterion that was not met was regarding animal health and welfare and as such this standard may not support earned recognition for livestock activities. A check of the BRC directory of members indicates that this does include businesses that slaughter animals, with most businesses being processors, manufacturers and packers of food. This standard does not apply to production of food packaging.

ISO22000 2005 (including Synergy 22000 & FSSC 22000)

ISO22000 is an international standard for food safety management systems which may be adopted by any food business. Approval of the food business against the standard is carried out by certification organisations that have been accredited as meeting the requirements of ISO17021 (*Conformity assessment - requirements for bodies providing audit and certification of management systems*) by an accreditation organisation e.g. UKAS. ISO22000 is recognised by the Global Food Safety Initiative and supported by the Confederation of Food & Drink Industries of the European Union.

ISO22000 is supported by a range of other documents as follows:

- ISO 22000:2005 Food safety management systems Requirements for any organization in the food chain.
- ISO 22001 Guidelines on the application of ISO 9001:2000 for the food and drink industry
- ISO/TS 22002- Prerequisite programmes on food safety. Part 1: Food manufacturing
- ISO TS 22003 Food safety management systems Requirements for bodies providing audit and certification of food safety management systems.
- ISO TS 22004 Food safety management systems Guidance on the application of ISO 22000:2005.
- ISO 22005 Traceability in the feed and food chain General principles and basic requirements for system design and implementation.
- ISO 22006 Quality management systems Guidance on the application of ISO 9002:2000 for crop production.

ISO22000 taken in isolation was rated as partly meetingqthe criteria regarding covering relevant food safety and hygiene legislation because it does not specifically/prescriptively cover the legislative requirements although the assessor would be making a judgement as to whether the supporting programmes were adequate in terms of food safety. ISO 22000 states that businesses should select and implement appropriate pre-requisite programmes³². However, the UK approval bodies award certification against a combination of ISO22000 and a 'pre-requisite' standard such as PAS220 or equivalent which covers legislative requirements.

Two specific schemes related to ISO 22000 were included in the research, namely FSSC

³² Prerequisite programme (PRP) are basic conditions and activities that are necessary to maintain a hygienic environment throughout the food chain suitable for the production, handling and provision of safe end products and safe food for human consumption. PRPs are meant to be specific to the product and processes being managed.

22000³³ and Synergy 22000³⁴. It is noted that some of the certification bodies accredited by UKAS for undertaking assessments against elements of ISO22000 offer both ISO22000 and FSSC 22000.

Therefore, the Synergy and FSSC versions of ISO22000 can be considered for earned recognition, whilst it may not be appropriate to consider ISO22000 in isolation of pre-requisite standards.

It should be noted though that ISO 22000 did not fully meet the following Essential criteria:

- Assessment should be supported by a standard checklist or similar that covers food safety and hygiene requirements.
- Guidance should be provided to Approval Bodies regarding the action to be taken for each type and severity of non-conformance (where severity relates to the risk posed to health of the non-conformance).

However, whilst ISO may not stipulate these processes, FSSC 22000 and Synergy 22000 do meet these criteria, i.e. the UK approval bodies have adopted these processes.

It was noted that the ISO22000 does not cover animal health and welfare, an essential criteria. Therefore, with respect to earned recognition, ISO 22000 might be limited to non-livestock activities (i.e. excluding primary animal production). However, it should be noted that:

- FSSC was developed for the certification of food safety systems of food manufacturers and is applied in combination with prerequisite programs on food safety for food manufacturing, BSI PAS 220: 2008;
- Synergy 22000 certification is a set of two complementary standards. ISO 22000 is assessed in combination with prerequisite programmes (PRPs). PRPs are intended to be established, implemented and maintained according to the size and type of the operation and the nature of the products being manufactured and/or handled. The combination of ISO 22000 & PRP 22000 is intended to be applicable to the entire food chain & related activities.

Thus, FSSC and Synergy 22000 both met all relevant essential criteria and 24 and 27 of the Important criteria respectively.

International Featured Standards (IFS)

The IFS standard (operating mainly in Germany and France) fully meets all 10 applicable essential criteria. The only Essential criterion that was not met was regarding animal health and welfare and as such this standard may not support earned recognition for livestock activities. The scheme fully meets 26 of 35 of the important criteria.

Certification to the IFS standard is a requirement within the UK for businesses supplying the major retailers in north west Europe. Those businesses requiring IFS certification frequently also require BRC Global Food Standard certification and the business may carry both certifications to satisfy their customerc requirements

³³ The Netherlands based not for profit Foundation for Food Safety Certification developed FSSC 22000, the ISO 22000 and PAS 220 based certification scheme for certification of food manufacturers. The scheme is recognised by the Global Food Safety Initiative (GFSI).

³⁴ The Synergy 22000 certification scheme is owned by a Swiss company, Synergy Global Standardisation Services SA. The scheme is based on ISO22000:2005 and a Synergy owned document defining pre-requisite programmes that is based on ISO22002-1.

GlobalG.A.P. -Integrated Farm Assurance v3 (March 2008)

The GlobalG.A.P. Integrated Farm Assurance v3qstandards are very comprehensive covering quality management systems in addition to the application of HACCP for the management of food safety. It is intended to cover all forms of primary production including livestock.

The Scheme fully meets 9 of the 11 essential criteria. The exception relates to assessor authorisation, as GlobalG.A.P. reported there to be no requirement for completion of a minimum amount of Continuing Professional Development each year. The standards do however exceed legislative requirements in some respects.

It was noted that the standard does not cover animal health and welfare. Therefore, with respect to earned recognition, it might be limited to non-livestock activities.

The scheme fully meets 21 of 35 of the important criteria.

Information was not provided by GlobalG.A.P. relating to the funding of development and maintenance of the standards (whether this is provided by businesses or their customers) and whether the standards setting committee has an independent chair, which accounts for some but not all of the important criteria not being met.

STS solutions

STS have (and own) three separate standards which are governed by the same set of principles, the standards are:

- STS Certification Scheme (Small & Regional) which covers small local and regional manufacturers and suppliers who supply, or intend to supply food, ingredients and food related items; and
- Code of Practice and Technical Standard for Food Processors and Suppliers to the Public Sector v3 (September 2007) which are standards required of food processors and suppliers that supply, or intend to supply food, ingredients and food related items to the Public Sector, particularly health, education and prisons.
- Code of Practice and Technical Standard for Food processors and Suppliers to the non Public Sector (2007). This standard was not included in the detailed review and as it is similar to the Public Sector variant.

The standards meet all essential criteria applicable to processing activities. The standards did not cover animal health and welfare. Therefore, with respect to earned recognition, it might be limited to processing and manufacture that does not involve livestock activities such as slaughter.

The scheme fully meets 21 of the 35 important criteria.

NSF-CMi 'Due Diligence' Manufacturing Scheme

The NSF-CMi Due DiligenceqScheme fully meets 9 of the 10 applicable essential criteria (animal health and welfare requirements are not applicable to this scheme). The exception relates to Approval Bodies having procedures in place for continuing Professional Development of assessors; NSF-CMi report that assessors do not have to conduct of a minimum number of assessments per annum.

The scheme fully meets 13 of the 35 important criteria. As it does not use a logo, it did not meet these criteria.

NSF-CMi 'Due Diligence' Wholesaling, Storage & Distribution Scheme

The NSF-CMi ±Wholesaling, Storage & DistributionqScheme fully meets 9 of the 10

applicable essential criteria (animal health and welfare requirements are not applicable to this scheme). The exception relates to Approval Bodies having procedures in place for Continuing Professional Development of assessors; NSF-CMi report that assessors do not have to conduct of a minimum number of assessments per annum.

The scheme fully meets 20 of the 35 important criteria.

Safe & Local Supplier Approval (SALSA)

SALSA met all essential criteria except for animal welfare, thereby limiting its application to activities involving livestock. SALSA has two standards, one generic and one for cheese makers that specifies additional requirements to the base standard for cheese production. Most members are small producers covering all forms of products. The standards largely and specifically cover the legal requirements, although some elements of the legislation are implicit within the standard e.g. general reference to the need for adequate temperature control and the need for suitable standards for buildings used to product food. The standards also contain many of the elements of a quality management system.

The SALSA scheme, which its website reports is supported by Defra, Seafish and the Food Standards Agency, was developed to help local and regional food and drink producers. The schemes fully meet all of the applicable essential criteria (animal health and welfare requirements are not applicable to this scheme).

The scheme fully meets 24 of the 35 important criteria.

Product specific schemes

Agriculture Industries Confederation schemes

The Agriculture Industries Confederation (AIC), formerly UKASTA, has four schemes available; FIAS (Fertiliser Industry Assurance Scheme), TASCC (Trade Assurance Scheme for Combinable Crops), FEMAS (Feed Materials Assurance Scheme) and UFAS (Universal Feed Assurance Scheme) and the AIC works with Defra and the FSA in developing the standards. The following findings are a synthesised summary of these four Schemes.

The AIC Schemes fully meet 9 of the 10 applicable essential criteria (animal health and welfare requirements are not applicable to this scheme). No information was provided regarding whether guidance is provided to Approval Bodies regarding the action to be taken for each type and severity of non-conformance.

The scheme fully meets 23 out of the 35 important criteria.

Information was not provided by AIC relating to whether the Approval Bodies are selffunding nor whether there is an effective process for communicating alerts about food safety and hygiene problems to assessors, regulators and businesses.

Additional findings from the review included:

- Feed Materials Assurance Scheme (FEMAS) standard was comprehensive, covering all legislative requirements and the requirements of a quality and food safety management system.
- Trade Assurance Scheme for Combinable Crops (TASCC) combine food/feed safety legal requirements with recognised industry good practice and specific customer requirements to provide confidence in the food/feed chain. Some legislation is implicit.
- Universal Feed Assurance Scheme (UFAS) the compound feed module was comprehensive in the coverage of legislative requirements (EC183/2005 and the

Feedingstuffs (England) Regulations 2005) and additionally requires quality and food safety management systems to be in place.

Grain and Feed Trade Association (Gafta) Trade Assurance Scheme (GTAS)

The Gafta Trade Assurance Scheme (GTAS) is a HACCP based scheme for all companies operating in the international grain and feed trades and was introduced in 2006. It covers each stage in the trading and logistics supply chain from farm in the country of origin to delivery to the final end-user in the country of destination.

The standard does meet nine of the 10 relevant essential criteria (animal welfare is not relevant). Their response indicated that they do not provide guidance to Approval Bodies regarding the action to be taken for each type and severity of non-conformance.

Animal health and welfare is not applicable to the activities covered by this standard.

The scheme fully meets 24 of the 35 important criteria.

GMP+ Feed Assurance Scheme (GMP+ FAS)

The Good Manufacturing Practice \pm MP+ FASqfully met all 10 of the applicable essential criteria (animal health and welfare requirements are not applicable to this scheme).

The scheme fully meets 27 of the 35 important criteria.

Scottish Quality Crops (SQC)

The purpose of the Scheme is to ensure that consumers and the trade have confidence that crops are grown on farms with a high standard of management, especially of farm operations which might affect the wholesomeness or safety of the food produced or the health of the environment and countryside.

The standard focuses on hygienic production through a SQC Generic HACCP Plan which, although the references made to legislation are not current, covers the production of a safe product. Scottish Food Quality Certification (SFQC) is the Approval Body and has EN45011/ISO Guide 65 certification.

Based on information provided by the scheme it does not <u>fully</u> meet all aspects of the essential criteria but it does partly meet the following:

- Criteria for the selection of assessors . They do not require training in auditing.
- Approval Bodies should have procedures in place for: Initial approval of assessors, such as requiring satisfactory conduct of a minimum number of assessments shadowed by an assessment manager; routine evaluation of assessor performance etc;
- The decision to approve a food business should be made by a suitably qualified and experienced individual employed within the Approval Body

Animal health and welfare is not applicable as it applies only to combinable crops.

The scheme meets 23 of the 35 important criteria.

Assured UK Malt

The Assured UK Malt Technical Standard is focused on food safety and quality management systems and specific requirements relating to malt production, and fully meets all 10 applicable essential criteria (animal health and welfare requirements are not applicable to this scheme). Some legal requirements are implicit such as sufficient lighting and facilities for cleaning & disinfecting. It brings together various aspects of new and existing codes of practice making up a set of standards that are unique in the world of malting.

Suppliers are audited by Product Authentication International who is an independent certification company, and who has been accredited by the United Kingdom Accreditation Service (UKAS) as the scheme's recognised Certification Body.

The scheme fully meets 20 out of 35 of the important criteria.

Best Aquaculture Practices (BAP)

The standards and associated schemes are owned by the Global Aquaculture Alliance based in Missouri, USA. Whilst they do not specifically cover the requirements of UK legislation the BAP Seafood Processing Standards are stated to have achieved benchmarking against the GFSI standard in June 2010. Certification is undertaken by the Aquaculture Certification Council using assessors approved by the ACC stated as to ISO Guide 65. They have been benchmarked against the Global Food Safety Initiative which requires accredited approval bodies.

The BAP Standards fully meet 10 of the 11 essential criteria. The only exception relates to the requirement for assessors to undertake a minimum number of assessments per annum, which BAP report is not a requirement for auditors to maintain their authorisation.

The Global Aquaculture Alliance is a US based organisation who owns the BAP (Best Aquaculture Practices) standards. Businesses are certified through their scheme, managed by the ACC (Aquaculture Certification Council) also based in the US. Whilst the scheme met most of the Essential criteria it was uncertain whether all of the BAP standards for aquaculture were all applicable to the UK, in part as the species covered being unlikely to be farmed in UK climatic conditions.

The BAP Feed Mill standard was assessed, in Table 10, as not being aligned to many aspects of UK food hygiene legislation, and so was not recommended for recognition at this time.

The standards fully meet 29 out of the 35 important criteria.

Scottish Quality Wild Venison (SQWW)

Whilst many of the legislative requirements are detailed in the standard, some are not explicit within the text e.g. requirements for toilets and washbasins/changing facilities.

The SQWV Standard fully meets 10 of the 11 essential criteria. The only exception relates to the criteria for the selection of assessors (no degree or equivalent required).

The scheme fully meets 23 of the 35 important criteria.

British Meat Processors Pig meat Standards

The British Meat Processors Pig meat Standards fully meets 9 of the 11 essential criteria. The exceptions relate to the assessment duration being determined by the size, scope and complexity of the food business, and the provision of guidance to Approval Bodies regarding the action to be taken for each type and severity of non-conformance (where severity relates to the risk posed to health of the non-conformance).

The scheme fully meets 23 of the 35 important criteria.

Guild of Q Butchers (GoQB)

The second part of the standard³⁵ covers hygiene standards as a series of mandatory items (including the legislative requirements) and some additional requirements that

³⁵ The first part covers quality standards required of members, covering display, marketing and customer facing requirements.

prescribe the manner in which some aspects of hygiene are to be achieved.

The GoQB Scheme fully meets 7 of the 10 applicable essential criteria (animal health and welfare requirements are not applicable to the activities covered by this scheme). The exceptions relate to the criteria for the selection of assessors (no degree or equivalent required), Assessment duration determined by the size, scope and complexity of the food business and the provision of guidance to Approval Bodies regarding the action to be taken for each type and severity of non-conformance.

The scheme fully meets 19 of the 35 important criteria.

Information was not provided by GoQB relating to whether there is an effective process for communicating alerts about food safety and hygiene problems to assessors, regulators and businesses, nor whether assessors are required to advise the regulatory body of serious non-conformances that have not already been rectified by the assessed business.

National Association of Catering Butchers (NACB)

The standard is comprehensive and requirements are graduated as ±ntryqlevel, ±ommendationqlevel and ±igherqlevel. Legal requirements (EC852/2004, EC853/2004 and The Food Hygiene (England) Regulations 2006) are within ±ntryqlevel with additional requirements relating to quality management systems covered in the ±ommendationqand ±igherqlevels.

The NACB Standard fully meets 9 of the 10 applicable essential criteria (animal health and welfare requirements are not applicable to this scheme). The only exception relates to the requirement for assessors to undertake a minimum number of assessments per annum, which NACB report is not a requirement for auditors to maintain their authorisation.

The scheme fully meets 21 of the 35 important criteria.

Information was not provided by NACB relating to whether there is an effective process for communicating alerts about food safety and hygiene problems to assessors, regulators and businesses, nor whether assessors are required to advise the regulatory body of serious non-conformances that have not already been rectified by the assessed business.

British Sandwich Association (BSA)

The BSA Codes of Practice are comprehensive and cover legislative requirements as well as many of the elements of good practice as they relate to sandwich manufacture and some of the elements of a quality management system.

The BSA Scheme fully meets 8 of the 10 applicable essential criteria (animal health and welfare requirements are not applicable to the activities covered by this scheme). The exceptions relate to the use of a checklist to undertake assessments and the way in which assessment duration is determined. It is worth noting that BSA technical personnel undertake assessments of scheme members.

The scheme fully meets 19 out of the 35 important criteria.

English Beef & Lamb Executive (EBLEX) Quality Standard Mark

The EBLEX scheme relies on other assurance schemes for specific elements of the supply chain and examines the links to ensure assurance throughout the chain before allowing the use of the EBLEX Quality Standard Mark. As such it is not by itself a standard but a way of assuring against a family of standards, including Red Tractorqstandards.

The EBLEX Scheme fully meets 8 of the 11 essential criteria. The exceptions relate to the criteria for the selection of assessors and elements included within the assessment process. EBLEX report that they use independent assessors approved by Defra and that

assessments do not consider the safety knowledge of food business staff or take account of official controllers (inspectors) reports. Also, ELBEX does not specifically cover all food hygiene requirements, not fully meeting this criterion, but does require businesses to have AFS accreditation.

The scheme fully meets 24 of the 35 important criteria.

British Meat Processors Association (BMPA)

The BMPA scheme provides processors of meat products with a set of standards associated with processing and quality criteria for British Pork, Pork Sausage, Cooked Ham and Bacon. Approval to these standards additionally requires processors to be certificated to the BRC standard as a £oreq BMPA met 9 of the 11 essential criteria, not fully meeting assessment duration determined by size, scope and complexity of the food business, and guidance on action to take for each type and severity of non-conformance. It fully met 23 of the 35 Important criteria.

The EBLEX and BMPA schemes are included here because they do require conformance with suitable food hygiene standards. It should be noted that these are in fact standards assessed by other schemes, specifically Assured Food Standards.

2.3.7 Schemes that were assessed as not being specific to food hygiene

The following schemes were assessed as not (and were not designed to) sufficiently addressing food safety and hygiene regulations to earn recognition:

Livestock Transport Assurance Scheme (Defra)

The standard does not map directly onto hygiene legislation but refers to all relevant legislative requirements.

• Linking Environment & Farming (LEAF)

The scheme does not specifically cover areas relating to food safety although this is implicit in the standard.

Assured Land Based Contractor

The standards are not specifically food focused but centre on handling pesticides, feed additives and veterinary medicines, environmental protection and health and safety although protection of foodstuffs is implicit through the requirements within the standards.

• Welsh Organic Scheme.

The standards do not specifically focus on hygiene requirements although all legislative requirements are expected to be met. It met all other Essential criteria.

• Organic Farmers & Growers Certification

The standard does not make more than passing reference to hygiene related legislation and the focus for the standards is in relation to organic foods.

• Biofertiliser Certification Scheme

Whilst the standard is comprehensive and well written and there is clearly a link between biofertiliser products and public health, the PAS 110 standard does not specifically relate to hygiene requirements.

3 EVIDENCE REGARDING OUTCOMES OF SCHEMES

3.1 Introduction

A rapid search was completed for evaluations of third party assurance schemes in respect of the standards of food safety and hygiene that they achieve, ideally using measures such as microbiological results, frequency of safety recalls and compliance with food safety and hygiene regulations. We also asked the schemes to provide copies of any evaluations they had completed and key performance indicators such as the number of minor and major non-conformances.

Due to the small number of articles, our search for evidence included evaluations of assurance schemes in relation to animal health and welfare and environmental performance as well as food safety and hygiene. The search covered the UK, North America, Europe, Australia and New Zealand. We included any relevant article but, as noted below, scored the weight of evidence. The scale drew on the Maryland scale cited by HM Governments Social Research unit. ³⁶ The review focused on work since 1990 to cover the period when the uptake of assurance schemes were developed and adopted by food businesses.

It was considered important to note that this evaluation did not expect 100% conformance amongst approved members. Indeed, we would doubt the validity of any scheme that reported 100% conformance. Evidence that schemes were detecting, reporting and rectifying non-conformance was interpreted positively.

Methodological quality level	Maryland scale of scientific methods ³⁷	Extensions for this review for qualitative reviews & surveys
1	Observed correlation between an intervention and outcomes at a single point in time. A study that only measured the impact of the service using a questionnaire at the end of the intervention would fall into this level.	Subjective review without pre defined criteria or rating system. Surveys (of self reported impact or validity. Comparison of hygiene standards before and after assessment.
2	Temporal sequence between the intervention and the outcome clearly observed; or the presence of a comparison group that cannot be demonstrated to be comparable. A study that measured the outcomes of people who used a service before it was set up and after it finished would fit into this level.	Assessment of content and/or processes that uses defined principles and rating system. Review of trends in hygiene assessments over time and compared against other (unmatched) food businesses.

³⁶ <u>http://www.civilservice.gov.uk/my-civil-service/networks/professional/gsr/resources/gsr-rapid-evidence-assessment-toolkit.aspx</u>

³⁷ http://www.civilservice.gov.uk/my-civil-service/networks/professional/gsr/resources/REA-how-to-resources-for-appraising-studies.aspx

Methodological quality level	Maryland scale of scientific methods ³⁷	Extensions for this review for qualitative reviews & surveys
3	A comparison between two or more comparable units of analysis, one with and one without the intervention. A matched-area design using two locations in the UK would fit into this category if the individuals in the research and the areas themselves were comparable.	Comparison of hygiene standards on assured businesses compared to a sample of un-assured food businesses in another area.
4	Comparison between multiple units with and without the intervention, controlling for other factors or using comparison units that evidence only minor differences. A method such as propensity score matching, that used statistical techniques to ensure that the programme and comparison groups were similar would fall into this category.	Comparison of hygiene standards on assured businesses compared to a statistically <u>matched</u> sample of un-assured food businesses.
5	Random assignment and analysis of comparable units to intervention and control groups. A well conducted Randomised Controlled Trial fits into this category.	Food businesses are randomly assigned to an assessed and a not assessed sample, with analysis of objective outcomes (e.g. microbiological tests) before and after first assessment.

3.2 Overview of findings

3.2.1 Weight of evidence

An evidence table is presented in Appendix E at section 10. Overall with 17 included studies:

- Only two of the reviews scored more than two on the 1 to 5 scale, indicating a low standard of evidence about the impact of these schemes;
- 8 studies comprised qualitative reviews of content, 5 were reviews of trends in assessment scores (with no comparison group), 1 was a comparison of assessment and inspection results, 2 were reviews of industry wide trends in measures such as *Salmonella* in feeds which were not attributed to defined interventions (other than better industry practices) and 1 was a subjective feedback from businesses.
- There was no objective evidence of a reduction in, for example, *Salmonella* in animal feed, being partitioned to each of (for example) supermarket demands, third party assurance schemes, regulator actions and change in industry behaviour.

Thus, previous reviews of schemes have focused on their content and process, with few considering their outcomes in respect of contamination and food borne disease performance.

3.2.2 Studies identifying other factors

In addition, the findings from a number of studies incidentally highlight the need to establish ‰ause and effect+. These studies are noted below in Table 6. Thus, some of these studies raise the question of whether improved food safety practices were demanded by retailers during the period that the assurance schemes developed, making it difficult to unpick the role of the schemes from customer demands. Notwithstanding this uncertainty, it is also possible to argue that the assurance schemes are the means by which suppliers have tried to meet the demands of retailers, meaning there is little differentiation between the role of customers and the role of the schemes. Ideally an evaluation would take account of an array of factors including size of food business, type of market (conventional vs. niche), Agency interventions, any special or additional customer requirements (other than membership of an assurance scheme) as well as membership of an assurance scheme.

The feasibility of assessing the impact of <u>existing</u> assurance schemes is inhibited by the point that %arger+producers who supply major retailers are likely to be assured, whilst smaller growers supplying farmersq other markets and wholesalers may not be assured. Therefore, it would be difficult to isolate any one influence on producer standards. It would be more feasible to assess the impact of assurance in parts of the food chain where assurance schemes are still developing. This would allow more scope for a before and after comparison of performance in businesses with and without assurance.

Table 6: Summary of studies identifying potential factors that could also influence food safety and hygiene standards

- A study of the attitudes of European pig farmers towards animal welfare (Bock and Huik, 2007) found that farmersqmembership of different types of schemes was associated with their selection of markets and attitudes towards animal welfare.
 - Farmers who joined schemes that had basic animal welfare standards or top quality assurance schemes (that contain animal welfare but primarily focus on food safety) were more likely to sell to conventional markets, saw members of schemes as an % antry requirement+ and resisted additional requirements;
 - Farmers who joined schemes with specific animal welfare standards or organic schemes were more likely to sell to niche markets and were motivated to improve animal welfare and accept new requirements. They saw membership as being a means of accessing premium markets and avoiding the need to enlarge establishments by earning more per animal.

Thus, this study suggested that farmers joined schemes for different reasons but in both cases relating to the demands of their customers. This makes it difficult to %unpick+the influence of the schemes from the farmersqresponse to customer demands (which could occur independent of the scheme).

• Hepner, Wilcock and Aung (2004) in their literature review noted that companies who succeed in continual improvement tend to be larger, more likely to export and serve major customers. This again highlights the need to distinguish between the influence of customers, type of food business and membership of assurance schemes when evaluating their impact, i.e. is it membership of the scheme that aids performance or that larger more capable firms become members of schemes?

- Northern (2001) found that larger abattoirs were more likely to sell to large retailers and multiple retailers and at same time were more likely to have third party assurance, than smaller abattoirs;
- Sterns et al. (2001) found that retailers were the driving force in defining quality and requiring suppliers to implement quality assurance systems, possibly due to their market concentration and role as consumer gatekeepers.
- Lindgreen and Hingley (2003) found that Tesco seeks to get assurance of their meat supply chain by their own codes of practice as well as by third party assurance, and that Tesco % trives+to provide higher levels of food safety than the industry or legal norm. They also noted (in 2003) that :
 - Tesco carry out audits of meat suppliers four times per year and operated the Best Beef Scheme.³⁸
 - o That Tesco moved towards a preferred supplier base

This reinforces the difficulty in discerning the impact of third party assurance from retailer demands and auditing.

- Tesco (Natures Choice) and Marks and Spencer (Field to Fork) are mandatory global codes of practice which are an enforced condition of trade (Monaghan J, D Thomas and K Goodburn, 2008). They also reported that, in a study of fruit and vegetable producers that:
 - Producersqcrops are audited between one and five times per growing season (mostly by retailers)
 - The main source of food safety guidance (amongst producers) was retailers in the form of thresholds levels for microbiological testing. Assured Produce Schemes was the least frequent source of advice (remembering that assessors are not meant to provide advice).
- C. Bell in his evaluation of the Agency Foodborne Disease Strategy (2006) noted that (for example) the Agency along with the Madustry+disseminated practical measures to reduce *Campylobacter* levels in poultry, alongside the launch of the Lion Quality mark in 1998, with the Agency running seminars with farmers for instance.

3.2.3 Reviews of assurance schemes

Notwithstanding the low weight of evidence, the key points from previous reviews of assurance schemes were:

- Content reviews such as Kirk-Wilson (2002) have found that previously reviewed schemes do cover appropriate food safety and hygiene requirements and have suitable standards setting and certification processes, such as the AFS suite of schemes, Lion Eggs, AIC (feed), Genesis, SQC, QMFSA, FAWL, NIBL FQAS, ACCS and AP;
- After comparing the inspection and audit procedures of Assured Dairy Standards (which is now an AFS scheme module for dairy farms) and Animal Health Dairy

³⁸Tesco have, at the time of reporting, a dedicated Producer Club manager along with beef standards, and standards covering all forms of livestock products. Some require third party assurance and **%**urther independent spot checks by species qualified auditors working on behalf of Tesco and by the Tesco Agriculture Team+.

Hygiene inspections completed on behalf of the FSA, it was proposed³⁹ % reduce the frequency of official on-farm hygiene inspections ... for those dairy farms which have been assessed by Animal Health Dairy Hygiene as lower risk and which also have Assured Dairy Farm status+ õ + Thus, the assessment process (of AFS schemes) was concluded to be sufficient if different to inspections.

This review did note that First Purchaser sampling results could provide some objective evidence, noting that audits (assessments in our terms) focus on processes and conditions rather than objectively measured outcomes.

- The IFS (IFS, 2010) commissioned a survey in 2009 of 239 approved businesses. The survey asked approved business whether selected measures had improved since being approved. They reported that, as a per cent of respondents:
 - o 17 percent reported a reduction in food recalls than the general market;
 - 27 percent reported a reduction in customer claims/complaints related to food safety and food quality
 - \circ 51 percent reported reduction in regulatory uncertainty; and
 - 40 percent reported a reduction in product error/defect rates.

As a self reported survey with no comparison group this study was rated as low reliability (2).

- Whilst a Defra study (Kilbride 2010) found less non-compliance with animal welfare requirements amongst certified businesses, this could be because farmers who comply with the law are more likely to join a scheme.
- Albersmeier, Schulze, Jahn and Spiller (2009) in their review of certification refusal rates in the German Quality and Safety scheme, found wide variations in refusal rates. They suggested, without objective evidence, that this may reflect the %tress of competition+arising from the need to secure businesses from the approved farms. This %tress+could lead to price competition (and shorter audits) and pressure to award certificates to maintain the business. This study, whilst not proving weak auditing, does highlight the need for objective verification of the outcomes of third party assurance schemes and ongoing monitoring of the %eliability+and %obustness+of such assessments.
- Dean (2008) reported on the number of *Salmonella* positives in pig/ poultry rations and concentrates and active/passive BSE results. Our own review of that data suggests that the number of *Salmonella* positives in pig/ poultry rations and concentrates and active/passive BSE results started to decline prior to launch of the scheme in 1998. *Salmonella* positive in pig/poultry rations and concentrates appear to have declined until 2001 at which they have remained steady (at a lower level than before) until the end of the data in 2006. BSE positives declined from 1993 to 2005 to reach zero. The decline in *Salmonella* was attributed by the report to better feed storage and delivery and that UFAS may reasonably claim a significant proportion of the credit for this..+(p16), but does not present objective evidence to support this assertion. The decline in BSE was attributed to a very high conformance rate with BSE related feed controls complemented by UFAS quality assurance schemes.

³⁹ Food Standards Agency Consultation. Proposal to reduce the frequency of on-farm official inspection in the dairy sector. <u>http://www.food.gov.uk/multimedia/pdfs/consultation/officialinspectdairysecteng.pdf</u> downloaded December 2010.

3.2.4 Non conformance and suspension data

Sixteen organisations provided data on the rate of non-conformances and suspensions of certificates. The rates of non-compliance are shown in Table 7. The schemes names are not presented. The data provided by schemes varies. For example, some distinguish between minor and major non-conformances, whilst others do not.

Before considering the data in Table 7, it is pertinent to note that non-conformance rates may vary due to:

- The age of the scheme. Older schemes may have lower non-conformance rates as businesses have a better understanding of requirements and %poor+businesses may have dropped out;
- Retailers expectations . if key retailers require certification to the scheme this may provide additional incentives to comply;
- Businesses may withdraw from a scheme prior to an audit to avoid being suspended if they consider the requirements excessive or that they may fail.

Therefore, no implications have been drawn here about differences in conformance rates between schemes. In some schemes a major non-conformance leads to suspension whilst in others there is scope to rectify the non-conformance before suspension. Also, whilst some schemes could report Major versus Minor Non-conformances others could not split these. The number of audits has been stated except where this might identify the scheme. The rate of non-conformance is stated for major and minor separately where given by the scheme, but is quoted as an overall rate if the scheme did not provide data for each grade of non-conformance.

The rate of non-conformance reported by schemes is high enough to be credible (noting that we would doubt the validity of zero non-conformance) but, subjectively (in the opinion of the authors of this report), is a reasonable level.

Scheme	Non- conformance (N/C)	Suspension
1.	75% with zero N/C	1% to 2% of audited
	15% one N/C	businesses
	7% 2 or more N/C	
2.	The most common number of N/C per audit was 7, ranging from 1 to 25 per audit	0.15% suspended from about 15,000 sites
3.	An average of 3.3 N/C per audit	1.2% suspended from 6366 audits
4.	An average of 1 minor N/C per three audits and one major per 25 audits, from over 2000 audits	Not stated
5.	Average of 4.2 N/C per audit	None
6.	Not stated	5% suspended
7.	0.006 <u>major</u> N/C per audit from 12000 audits . nearly all sites with major N/C suspended	0.6% suspended
8.	0.46 N/C per audit from 15 audits. No major N/C	None

 Table 7: Reported rates of non-conformance (scheme name withheld here)

Scheme	Non- conformance (N/C)	Suspension
9.	Not stated	20% suspended out of 564 audits
10.	8 minor and 3 major N/C per audit	8% suspended
11.	1.5 minor N/C per audit from over 750 audits and one major every 11 audits (11% of audits with major N/C)	0.8% suspended
12.	0.45 minor N/C per audit from over 10000 audits. 1 in 18 audits have major N/C, all suspended.	5% suspended
13.	7 minor N/C and 3 major N/C per audit from 27 audits	None
14.	1.3 N/C per audit	1% suspended from over 3000 audits
15.	2 N/C per audit	0.59% suspended from over 500 audits
16.	5 minor per audit and 1 major per four audits	Not stated

3.2.5 Agency review of dairy hygiene inspection and assessment results

The Agency (FSA 2010) completed a comparison of the results of inspections completed by Animal Health Dairy Hygiene (AHDH) on behalf of the Agency against the results of assessments completed by Assured Dairy Farms (ADF), the third party assurance scheme. The comparison used past inspection and assessment results from the period January 2004 to May 2008. Two comparisons were completed, namely:

- Whether AHDH and ADF assigned same risk level to a farm?
- Whether the preceding ADF assessment matched the next AHDH inspection result?

The comparison found that:

- 46% of farms had the same assessment from both schemes, 13% of farms were assessed as higher risk by ADF and 41% were assessed as higher risk by AHDH.
- The correspondence of low risk ratings with the next AHDH inspection was as good for ADF as it was for AHDH. That is:
 - $\circ~$ 51% of ADF farms assessed as low risk, were then assessed as low risk by AHDH.
 - 54% of farms assessed as low risk by AHDH were then assessed as low risk at the next AHDH inspection.
- The correspondence of high risk ratings with the next AHDH inspection was lower for ADF, namely:
 - Less than 10% of farms assessed as high risk by ADF were then assessed as high risk by AHDH;
 - 35% of farms were assessed as high risk by AHDH were also assessed as high risk at the next AHDH inspection.

It was concluded that whilst ADF assessments were a reasonable indicator of compliance for low risk farms, it was not a good indicator for high risk farms. The consultation proposed that inspection frequencies should only take account of ADF results for low risk farms. Thus, this comparison provided mixed evidence of the correspondence of assessment and inspection results. The Agency noted that AHDH inspections and ADF visits differed in a number of respects, such as some AHDH being during milking time whilst ADF visits were done at % puiet times+.

3.2.6 Agency surveillance results

Food Standard Agency and European Food Safety Authority food surveillance results do provide some evidence regarding whether trends in infection coincide with the introduction of assurance schemes. Three sets of results are discussed below.

Salmonella Enteritidis infections in eggs

Fearne and Martinez (2005) summarise the chronology of the British Egg Council ±ion Eggqscheme and attribute the decline in *Salmonella Enteritidis* infections to the introduction of the scheme. The number of cases of salmonellosis in humans rose by approximately 170% mostly in the 1990¢ which was attributed to *Salmonella Enteritidis* in chicken. The British Egg Council developed the 1993 Lion Code of Practice and amended this in 1998. The Code of Practice included vaccination, extensive cleaning and flock testing as well as UFAS assured feed. All major retailers were said to require Lion Mark eggs and that 85% of UK egg production was covered by the Code of Practice. The rate of *Salmonella Enteritidis PT4* infections reported by the Health Protection Agency was reported to have declined greatly after 1998, contrary to the previous rise, although *Salmonella Enteritidis non-PT4* rose from 2000 to 2004 in the reported data.

A 2004 report by the FSA summarises changes in *Salmonella* contamination in UK eggs. A total of 4753 samples (mostly boxes) of six eggs were purchased from a representative cross-section of retail outlets throughout the UK and the shell and contents tested for *Salmonella* contamination. The overall UK finding was that 9 samples (0.34%) were contaminated with *Salmonella*, which is equivalent to approximately 1 in every 290 ‰oxes+ of 6 eggs.

In the last major survey, conducted in 1995/96, the eggs were sampled in England only. On this occasion eggs were sampled from all four countries in the UK. If the findings from the current survey are compared on an England only basis then there has been a 3-fold reduction in the level of *Salmonella* contamination since 1995/96 (which reported 0.99% contamination rate) and this is likely to reflect the measures introduced by the UK egg industry to control *Salmonella*.

However, the FSA report also stated that:

- There was no statistically significant difference between the prevalence of Salmonella contamination õ between non-Lion code eggs and Lion code eggs;õ
- However, there was a statistically significant higher prevalence of *Salmonella* contamination of eggs from medium sized retailers* than large retail outlets.
- The second ACMSF report on *Salmonella* in eggs published in 2001 concluded that the reduction in salmonellosis was mainly due to vaccinating hens under the British Egg Industry Council (BEIC) Lion code scheme. However, it noted that some producers who were not under the BEIC Lion code scheme also vaccinated against *Salmonella*.
- Whilst the UK Egg Producers (UKEP) Ltd, aimed at independent egg producers also requires vaccination, a very small fraction of the 2003 samples were UKEP eggs.

Therefore, the FSA concluded that the reduction in infections was % ikely to reflect the measures introduced by the UK egg industry to control *Salmonella*.+(p44). However, it is

difficult to exclusively attribute the changes in production practices to the Lion Egg scheme as opposed to retailer demands and other factors. Whilst this does not disprove the role of the Code of Practice in achieving the changes in egg production, it does raise the question of whether such a scheme would have the same impact if it was to be introduced in the absence of retailer demands and media attention, and whether it was the scheme or the specific retailer demands that accounted for the decline in infections.

Campylobacter and Salmonella contamination of chicken

A UK-wide survey (Food Standards Agency, 2009).was undertaken by the Agency between May 2007 and September 2008 to determine *Campylobacter* and *Salmonella* prevalence on fresh chicken at retail. During the course of the survey 3363 samples were collected, with 3274 being acceptable for testing and microbiological examination using a presence/absence method for the detection of *Campylobacter* and *Salmonella*. *Campylobacter* enumeration tests were conducted on 927 samples, collected between April 2008 and August 2008.

- The prevalence of *Campylobacter* in chicken at retail in the UK was 65.2%, based on the results from both methods combined, for the 927 samples tested.
- The prevalence of *Campylobacter* in whole chicken of UK-origin was 76.1%, based on the results from both methods combined, for the 416 whole UK-origin chicken samples tested.
- Salmonella was found in 207 samples giving a weighted prevalence of 6.6% in 2008. This indicates that Salmonella prevalence had remained low since the 2001 survey which reported a prevalence of 5.7%.

The change in approach taken to determine prevalence in this survey means it is no longer valid to make direct comparisons to the 2005 baseline of 70% (*Campylobacter*).

Bell (2006) in an evaluation of the Agency¢ strategy, noted that *Salmonella* in raw poultry showed a significant decline from 8.4% to 3.9% between 2001 and 2004 from a Wales and Northern Ireland retail poultry survey, with the Lion Mark introduced in 2000, but that there had been no change in *Campylobacter*. It is unclear if these measures are comparable with those made in 2008.

A European Union-wide baseline survey in 2008 by the European Food Safety Authority (EFSA 2010) was carried out at slaughterhouse level to determine the prevalence of *Campylobacter* in broiler batches and of *Campylobacter* and *Salmonella* on broiler carcasses. They found that:

- At Community level the prevalence of *Campylobacter*-colonised broiler batches was 71.2% and that of *Campylobacter*-contaminated broiler carcasses was 75.8%. Member State prevalence varied from 2.0% to 100.0% and from 4.9% to 100.0%, for caecal contents and carcasses, respectively.
- The rate of *Campylobacter*-colonised broiler batches was 75.3% in UK versus 71.2% for EU as a whole, which is not significantly different;
- The rate of *Campylobacter* in broiler carcasses was 86.3% for *Campylobacter* in the UK which was above EU average if you compare lower Confidence Interval for the UK to EU average of 75.8%;
- An estimated Community prevalence of *Salmonella Enteritidis* or *Salmonella Typhimurium*-contaminated broiler carcasses of 3.6%, varying from 0.0% to 9.6% within Member States, after excluding Hungary. The UK rate of 3.6% was the same as EU average.

Thus, some states have significantly lower rates of infection than the UK, with some states reporting *Campylobacter* of less than 10% and 0% for *Salmonella*. The report did not suggest any reasons for the differences in rates of infection between member states. However, it does indicate that UK chicken production has not reduced infection rates below those for the EU as a whole and is higher than in some other EU states.

Denmark was identified as having a low rate of infection. It was separately reported that since 2003 Denmark has had a voluntary strategy for fighting *campylobacter*, with direction from the Ministry of Food, Agriculture and Fisheries 4^0 . Their low rate of infection has been attributed to this strategy. Also, In 1997, the Dutch Product Boards for Livestock, Meat and Eggs implemented monitoring and control programmes in the poultry meat and egg production chains to reduce *Salmonella* and *Campylobacter* contamination of poultry meat, and *S. Enteritidis* and *S. Typhimurium* contamination of laying hens. Giessen et al (2006) reported on trends in *Salmonella* spp. and *Campylobacter spp*. in poultry production flocks in the Netherlands. The prevalence of *Salmonella spp*. in laying-hen flocks has significantly decreased from 21.1% in 1999 to 13.4% in 2002, whilst the prevalence of *Campylobacter spp*. in broiler flocks did not increase nor decrease continuously between 1999 and 2002. Thus, they attributed the decline in *Salmonella* to the 1997 scheme.

In the UK the FSA has recently announced⁴¹ targets agreed with industry to reduce *Campylobacter* in chickens:

%The UK target for reduction of *Campylobacter* is a reduction in the percentage of chickens produced in UK poultry slaughterhouses that have the highest level of contamination, i.e. those with more than 1,000 cfu per gram, from a baseline of 27% in 2008 to 10% by 2015, measured post-chill.+(p2)

It also notes that ‰he new on-farm standards will be implemented throughout the UK by the Red Tractor Farm Assurance Poultry Standards . Broiler and Poussin, in April 2011.+ (p4)

The Red Tractor scheme was launched in 2000 and covers poultry production. Thus, whilst it is the proposed means by which the new targets may be met, the level of infection was similar to EU average and far above some states many years after launch of the scheme.

Salmonella in pigs and ZAP

Fearne and Martinez (2005) also report a decline in *Salmonella* in UK pigs between 2003 and 2004 from 25% to 20.7%. They cite the British Pig Executive Zoonoses Action Planq (ZAP) launched in June 2002, covering 90% of British pigs. ZAP was integrated into the Assured British Pigs, GenesisQA and Specially Selected Scottish Farm Assurance schemes. Farms with excessive levels of *Salmonella* are said to usually have their assured status suspended. They attribute the improvement to the ABP scheme. Fearne and Martinez used data produced by the British Pig Executive.

However:

 The Food Standards Agency state⁴² % 2003, Defra conducted a survey of animals at slaughter in Great Britain to determine the faecal carriage of pathogens, including

⁴⁰ <u>http://www.thepoultrysite.com/poultrynews/14104/danes-focus-on-camplobacter-prevention</u> (Downloaded December 2010)

⁴¹ The Joint Government and Industry target to reduce *Campylobacter* in UK produced chickens by 2015. December 2010 <u>http://www.food.gov.uk/multimedia/pdfs/campytarget.pdf</u> (Downloaded December 2010)

⁴² <u>http://www.food.gov.uk/foodindustry/farmingfood/Salmonellainpigs/</u> (Downloaded December 2010)

Salmonella in pigs. This study was similar in design to a previous abattoir survey conducted in 1999-2000. In the 1999-2000 survey *Salmonella* was isolated from 23% of caecal samples taken from slaughter pigs and from 5.3% of carcasses. No improvement in levels of *Salmonella* was found during the second survey in 2003, with 23.4% of caecal samples testing positive.+

- Davies et al. (2004) reported a Salmonella infection rate of 23% for 1999-2000 in what they said was the first randomized National Survey for faecal carriage of Salmonella in slaughter pigs.
- The FSA report⁴³ in 2006/2007 the Veterinary Laboratory Association organised a UK survey as part of an EU wide survey of pigs in slaughter houses carried out to establish a baseline prevalence of Salmonella under Directive 2003/99/EC and Regulation (EC) No 2160/2003. In the UK 21.8% per cent of lymph nodes, 22. 9% of caecal contents.

Therefore, there is no evidence that the ZAP programme or that the changes in pig production has led to a lower rate of *Salmonella* in pigs in the last decade.

⁴³ http://www.food.gov.uk/multimedia/pdfs/monSalmonellapigs.pdf

4 DISCUSSION AND CONCLUSIONS

This section of the report provides the researchersqdiscussion of the evaluation findings and potential options/implications for the Agency.

4.1 Evaluation of the schemes

4.1.1 Achievement of essential criteria

This evaluation has identified that many schemes meet the essential criteria drafted for this study regarding the alignment of the standards to food hygiene legislation, approval organisations and the approval process, as elaborated below. Whilst there are some common aspects of the assessment process that could be explored further, and some schemes may have specific issues, as a whole the assessment processes are well established.

- Broadly speaking many schemes have well established approaches to developing standards, conducting assessments of businesses and clear requirements regarding the competence of assessors;
- Most approval organisations are UKAS accredited and adopt appropriate standards for accreditation bodies.

4.1.2 Evidence of outcomes of schemes

There was limited evidence about the extent to which these schemes have directly contributed to food product safety. Previous reviews of schemes have qualitatively assessed their requirements and procedures, rather than their outcomes. The data supplied by schemes on rates of non-conformance and suspensions whilst (in the opinion of the researchers) demonstrating that the schemes do identify and act on non-conformance do not provide direct evidence of changes in product standards. The Agency¢ retrospective comparison of AHDH inspection results and ADF assessments reported mixed results on their correlation. Reviews of the Agency¢ surveillance results, whilst showing reductions in pathogens in some food products, could not determine the role of the schemes in achieving these reductions. The reductions in pathogens could have been associated with changes in industry practice as a whole, some of which may have been included in schemes. At the same time, the schemes generally do not collate the results of food sample tests completed by food businesses to monitor and verify the outcomes of standards.

The researchers do not conclude that the lack of direct evidence of the impact of the schemes should necessarily prevent their recognition in setting of inspection frequencies. However, it was concluded that this finding highlights the need to further consider how the impact of schemes, trends in product standards and hygiene standards at food business are verified. The need to monitor outcomes in respect of product safety standards is further discussed in section 4.1.4, with suggestions on further comparisons of inspection and assessment results discussed in section 0.

4.1.3 Discussion of common issues

A series of issues common to all schemes were noted in section 2.3 of this report. These points are further discussed here. In addition to considering these general points, the researchers recommended that the specific issues identified in this evaluation regarding elements of specific schemes are communicated to the respective organisations and explored with them by the Agency if they wish to earn recognition by the Agency.

Third party assurance schemes have been developed in response to demands from supermarkets for independent verification rather than to perform the functions associated

with inspections by regulators. Some of the functions of inspections may not be covered by the typical third party assurance process. These issues do not indicate that the schemes are flawed but they do indicate the limit to their role as an alternative to inspection by local authorities and other enforcement organisations.

Provision of advice to food businesses

Responses from some schemes indicated that they regard the provision of advice to food businesses on solutions to their specific conformance problems by their approval organisation to conflict with the requirements of EN45011/ISO Guide 65.

Information provided by UKAS indicated that whilst it is acceptable for approval bodies to provide generic advice and guidance to organisations that they assess, it would not be acceptable for an assessor to propose a specific solution and explain how it could be used in the organisation they are auditing. Assessors can clarify the requirements of the standards but should not give prescriptive advice or consultancy as part of an assessment. This does not preclude the normal exchange of information with the clients and other interested parties.

The approval body can also provide training, providing that it is confined to the provision of generic information that is freely available in the public domain; i.e. the trainer should not provide company-specific solutions.

It was noted that the Food Law Code of Practice⁴⁴ does include the "provision of targeted education and advice that takes place at food establishments", i.e. inspectors are able to provide specific advice and coaching to food businesses, although these do not constitute "official controls".

As noted above, standards setting and approval bodies have scope to provide training and generic advice to food businesses to help them conform to standards. Therefore, this study concluded that it would be useful to clarify with schemes the potential scope for generic advice, training and explanation of requirements and the extent to which their schemes perform this role.

Communicating news of common safety or hygiene problems (found during assessments) across the industry.

Some of the schemes did not report a process for communicating common safety or hygiene problems across the industry. This raises the issue of **%** hat if+earned recognition leads to a reduction in enforcement visits and an associated reduction in the ability of enforcers to detect and communicate about common problems.

Surveillance of food test results

The schemes do not use the results of food sample tests (completed by or for businesses) to monitor and verify the product standards achieved by members as a whole.

Many standards cite an expectation that sampling and testing is undertaken by the food business as a means of verifying that product standards have been met. Assessors would review the businessesqtest results to evaluate whether the business is undertaking sampling and testing and whether the organisation doing the testing can be relied upon (e.g. is the laboratory part of an assurance scheme e.g. ISO17025) and whether the food business evaluates the results and acts on them appropriately to determine whether the business is effectively self regulating or merely going through the motions.

⁴⁴ <u>http://www.food.gov.uk/multimedia/pdfs/codeofpracticeeng.pdf</u>

It was clear from our rapid review of outcome evidence in section 3 of this report that the impact of some schemes has been assessed by the Agency by use of its food sampling surveillance results. Also, feedback from one major scheme indicated that they took account of previous surveillance results in setting the standard.

However, the conduct of surveillance is in most cases completed by the Agency rather than the standards setting or approval bodies, and does not necessarily cover all of the standards. In the absence of Agency surveillance there was no apparent process for verifying the product standards being achieved. Therefore, this study concluded that the policy for surveillance of food be further considered in the context of earned recognition, particularly the extent to which surveillance is carried out as in a planned manner for the sake of monitoring of the impact of schemes as well as the general purpose of monitoring trends in food standards. This point is further discussed at section 4.1.4.

Risk based inspection frequencies

Most schemes complete assessment of business at a fixed interval, generally once a year, (along with follow up visits for verifying resolution of non-conformances) rather than a variable frequency based on some form of risk assessment. Some schemes include %performance based risk assessment+when setting frequency of assessment, which is similar to part of hygiene rating systems used by inspectors. However, whilst this does not match the risk based approach to inspection, it does not mean that recognition cannot be earned for an annual assessment. In addition, whilst the risk based inspection guidance in Food Law Code of Practice gives frequencies of 6 months, 12 months and less, most are C risk businesses with 18 month frequencies.

Advising enforcers to serious or imminent risks to public health and safety

The current data sharing agreement with AFS allows local authorities and other enforcement organisations to check the approved status of food businesses. Enforcers may note that a business has been suspended by examination of approval databases (where data sharing has been implemented). All schemes include guidance for assessors on their response to major non-conformances, including requiring that the business takes corrective action and suspension of the business if critical standards are not confirmed with. However:

- The arrangement does not require that assessors advise enforcers in the event the assessor finds serious non-conformances representing an imminent risk to public or animal health that has not already been rectified by the assessed business.
- The data sharing arrangement enables local authorities or other enforcement organisations to identify which businesses are approved or not, but this relies on local authorities and other enforcement organisations checking the data and the data does not provide further information on the assessment.
- Only some of the assurance schemes report that they have systems in place to advise local authorities or other enforcement organisations of imminent serious risks or serious and unresolved major non-conformance.

Therefore, the current arrangements do not necessarily alert enforcers (who might not check the status of a business on a regular basis) to serious or imminent risks. In the event of a reduced frequency of inspection and no mechanism for assessors to report unresolved imminent risks at a food business, the capacity for local and other enforcement organisations to detect serious or imminent risks at approved businesses may be reduced.

A comparison can be drawn with (private) Approved Inspectors who can carry out inspections of building works (against building regulations) instead of local authority building control officers. In the event that a client fails to correct a serious non-

conformance with building control regulations, they are expected to refer the building project back to the local authority for enforcement. The Association of Consultant Approved Inspectors state⁴⁵ that *where work* õ contravenes the Building Regulations, a written notice may be issued. If the work is not then remedied within three months, the Approved Inspector will refer the work back to the local authority for them to take action. About 1% of Als' jobs end up being reverted to local authorities for enforcement each year - which is about the same as the percentage of local authority jobs that result in enforcement action.+ It is then a matter for the Local Authority to take enforcement action according to their normal procedures.

Data sharing with local authorities and other enforcement organisations

Only some of the schemes have arrangements for communicating with local authorities or other enforcement organisations. This reflects the point that the issue of earned recognition has yet to be considered for most schemes. This currently limits the ability of local authorities and other enforcement organisations to give recognition to approved businesses.

The arrangements for communicating between approval bodies and local authorities/other enforcement organisations that have been developed with AFS could be further developed (as per the above discussion) and carried across to any other schemes that the Agency judge can earn or have clear potential to earn recognition.

4.1.4 Agency process for schemes to earn and retain recognition

Feedback from the Agency indicated that it has to date reviewed third party assurance schemes on an ad hoc basis.

There are a number of issues that highlight the question of how third party assurance schemes are ‰onsidered+by the Agency for earned recognition. In considering these points it is pertinent to note that schemes have had different starting points and have evolved differently. Whilst some standards have been developed by trade associations with the intent of being assessed by separate accreditation organisations, in other cases organisations have created a standard that they would assess businesses against. Most schemes appear to have evolved in response to sector specific issues and, with the exception of AFS standards, there has not been cross sector liaison between standards setting organisations.

These issues include:

• There is no defined process within or outside of the Agency for % approving+the standard or the standard setting organisation for earned recognition;

At the time of reporting, the Agency is not *systematically* involved in the development and approval of the standards, nor is there any declared system for the Agency to give recognition to a standard. In contrast, in the case of competent persons self certification schemes operated within the field of building control, the Department for Communities and Local Government has a declared and formalised process for approving schemes, requiring periodic reporting from them and evaluating them.

Composition of standard setting body

Many of the standards are developed and are part <code>%wwned+by</code> the industryc trade association. This is not necessarily a problem as it does not mean that standards or

⁴⁵ http://www.approvedinspectors.org.uk/page.asp?id=15

the assessment processes are adversely impacted by any potential conflict of interest, but again raises the issue of having a transparent process by which the Agency reviews standards for the sake of considering earned recognition. In most cases the Agency is not currently represented on the standard setting committee according to the questionnaire responses.

 Whether it is appropriate for the same organisation to set the standard and complete assessments of businesses

This is not necessarily a problem as it does not prove that standards or the assessment processes are adversely impacted by any potential conflict of interest, such as setting a standard in a way that maximises assessment fees rather than prioritising assurance against regulatory standards. It does again highlight the need for some form of independent verification that the standard is suitable for the Agency, local authorities and other enforcement organisations to recognise.

• Sectors with one scheme

In many cases there is a single scheme covering a sector. Having a single scheme may reduce consumer confusion and reduces the potential for competitive pressures on the assessors. However this raises a potential issue of monopoly and again highlights the need for the process of setting the standard and related approval processes to be % werified + by a third party, such as the Agency as well as UKAS, to examine requirements for businesses.

- There is no process within or outside of the Agency for periodically checking whether a standard and its associated approval process (if completed by non-UKAS accredited organisations⁴⁶) should continue to be recognised by local authorities and other enforcement organisations when deciding on inspection frequencies. For example there is no stated process to check whether the standard is still up to date with food hygiene legislation.
- Many of the assessment bodies are directly financed by the businesses they assess, typically through certification fees.

As above, this is not necessarily a problem as it does not prove that assessment processes are adversely impacted by any potential conflict of interest or competitive pressures on assessors. It does though reinforce the need for some form of independent verification (such as UKAS¢ ongoing checks⁴⁷) of the standards achieved by third party assurance, to check and guard against conflicts of interest impairing assessment processes.

Some standard setting and approval bodies are profit making

The standard setting bodies are a mixture of profit making private companies and non profit making associations (such as SALSA) or councils, with most approval bodies being profit making. As above this does not necessarily indicate a problem but again may introduce *potential* competitive pressures. In the case of Competent Persons Self Certification Schemes, Department for Communities and Local Government requires that the lead organisation uses all &urplus+income for the benefit of the members of the scheme.

⁴⁶ In the case of approval bodies accredited by UKAS, UKAS check accreditation on an annual basis by surveillance visits, with a full reassessment every fourth year. The first surveillance visit takes place 6 months after initial accreditation.

⁴⁷ UKAS assesses approval bodies against internationally recognised standards to check their competence, impartiality and performance capability.

Options for Agency review and monitoring of "earned recognition" status of third party assurance schemes

A number of options can be conceived for the Agency, including:

- 1. Do nothing:
- 2. Respond to requests for recognition on an ad hoc basis;
- 3. Formulate a process for assessing requests for recognition and reviewing recognition of schemes

The Do nothingqoption would entail not awarding recognition to third party assurance schemes. Clearly this would have no resource implications for the Agency and assurance schemes would develop and operate in accordance with the market+

The option for responding in an ad hoc manner to requests would entail some commitment of resource by the Agency and would represent a *mesponsive+policy* by the Agency. In the absence of a defined and transparent process for receiving and assessing requests for recognition, this may have the disadvantage of limited transparency and inefficiency. It would also risk, in the absence of defined Agency requirements, schemes submitting requests for recognition which do not meet Agency requirements. The Agency¢ has stated some requirements for third party assessment, but these were designed to ensure the use of logo¢ on food products was transparent and valid rather than to enable recognition within setting inspection frequencies. Finally, without an ongoing process of review, the Agency may not be in a position to identify the need to withdraw recognition of a scheme or an approval body due to, for example, complaints from food businesses.

The third option obviously would entail greater resource demands by the Agency. It is noted that whilst third party assurance schemes have been developed by the private sector for the sake of satisfying industry needs, if the schemes are to be taken into account when deciding on inspection frequencies by local authorities and other enforcement organisations, then the schemes need to satisfy Agency requirements. In addition, by analogy, when the Department for Communities and Local Government sought to extend the range of building regulations through self-certification (where companies self certificate conformance with building regulations instead of a building control inspector) they devised requirements and an evaluation process for approving schemes and for schemes to maintain their approved status.

The third option could include the following:

- The Agency developing an agreed process with the standards setting and approval organisations for the Agency to advise local authorities and other enforcement organisations that named schemes may be taken into account in setting the frequency of inspection. The process may cover:
 - A specification for the information to be submitted by the organisation seeking earned recognition;
 - o Agency requirements for awarding earned recognition;
 - A defined evaluation and consultation process;
 - Announcement of earned recognition is in the form of a formal statement by the Agency, with:
 - A committee or similar form of body assigned the task of handling reviews of schemes for earned recognition, with recording of decisions and reasons for awarding or not awarding recognition.

Some of these have already been applied by the Agency and could be further developed for this purpose.

In order to minimise the process of assessing schemes the Agency could accept accreditation against EN45011 or equivalent as meeting the evaluation criteria regarding approval bodies, assessor authorisation, the assessment process and responding to non-conformance. The alignment of standards against legislation has been evaluated in this report for many standards (as per section 9.2). The Agency could create a questionnaire for scheme operators to complete for other evaluation criteria and if they do not adopt EN45011 or equivalent.

 The creation of an Agency or joint committee to operate this process, such as a joint committee including (for example) the Agency, UKAS and / or, the Society for Food Hygiene and Technology, Chartered Institute of Environmental Health, Institute of Food Science and Technology and Local Government Regulation (previously LACORS).

This body could also have a role in ongoing monitoring of the schemes (with respect to recognising them in setting inspection frequencies), as elaborated below.

- The Agency and/or joint committee being provided with information from the scheme ‰wners+that allows them to judge if they should continue to recognise the scheme and its assessment processes. This could include options such as:
 - Verification of updating in accordance with latest food safety and hygiene legislation;
 - Key performance indicators, such as proportion of businesses that are suspended or have major non-conformances;
 - Results of independent (not done by the approval organisations) spot checks on approved businesses, such as by enforcers;
 - Results of tests of food samples taken from approved businesses, whether this is sharing results completed of tests normally carried out by business or a random sample completed by the standards setting or approval organisations.
- Ongoing monitoring of outcomes of schemes.

It was noted that UKAS carry out % urveillance+checks on the approval organisations as part of the ongoing verification of the assessment process. This does not include checking product standards, comparing non-conformance rates between approval bodies or verifying assessment results by assessing a sample of approved businesses. Thus, UKAS provide assurance of the assessment process rather than verifying the hygiene standards being achieved by food businesses. Therefore, the following options were noted for checking that the schemes continue to assure adequate levels of food hygiene. The Agency could consider:

- Collating the results of inspections (possibly a sample) carried out by local authorities and other enforcement organisations of approved and unapproved businesses to check the proportion that do or do not have major non-compliance with food hygiene and animal welfare regulations. This would help verify the outcome of these schemes and act as a purposive &urveillance+of these businesses and associated schemes.
- Or, requiring the standards setting bodies or approval organisations to fund a comparable monitoring+process completed by other independent auditors to

double check approval results and conformance with food hygiene and animal welfare regulations, for a sample of approved businesses.

• And ask that standards setting bodies or UKAS compare (for businesses within one standard) certification refusal/suspension rates and non-conformance rates between accreditation bodies to monitor for signs of inappropriate variations in assessment practices.

The Agency already carries out food surveillance on an occasional basis for some food products. In some cases the samples have been structured to compare results between products supplied by approved businesses and others. The role of Agency surveillance, its planning and the design of surveillance exercises could be further considered with respect to ongoing assessment of the impact of third party assurance. In the event that taking account of approved businesses in setting inspection frequencies is associated with a reduction in the frequency of enforcement inspections, Agency surveillance could help verify performance in terms of measured levels of pathogens in food stuffs. The role of Agency surveillance could be further developed by, for example, ensuring samples are taken from approved businesses and other businesses, are carried out frequently enough to enable trend analysis and cover the food products in recognised schemes.

In addition, for local authorities and other enforcement organisations to take account of earned recognition in their resource planning, they would benefit from having assurance of the financial security of standards setting and approval organisations, to ensure they can manage the risks arising from scheme financial failure (and closure). This could be in the form of submission of annual financial accounts and number of approved food businesses to the Agency.

It can be noted that the review of UK feed assurance recommended the development by Agricultural Industries Confederation (AIC) of Critical Performance Indicators (Dean, 2008, p29) and that these indicators be developed on an industry basis to assess the performance of scheme adherents (as a whole) over time.

The aforementioned Commission of the European Communities guidelines were not designed to enable schemes to & arn recognition+by regulators and so did not address any particular requirements of regulators. They do note that:

- %Assessment of conformity with baseline requirements through certification schemes does not exempt the official control authorities from their responsibility+ (p9)
- %chemes may not prejudice or aim to replace existing official standards and/or requirements, nor should they purport to substitute for official controls carried out by competent authorities for the purposes of official verification of compliance with official obligatory standards and requirements,+
- Regulation (EC) No 882/2004 does include rules for delegation by competent authorities of official control tasks to independent third parties.
- The procedures for dealing with non-compliance include criteria for reporting (noncompliance) to the official enforcement body.

The working documents underwent a number of iterations, with various drafts available on the internet. An earlier version of the guidelines included the statement Where tasks are delegated to private certification bodies, the official control authorities should establish a formal delegation, supervise the tasks performed by the certification scheme and receive regular reporting+. This statement is not in the version published in the Official Journal of the European Union which focuses on the certification arrangements rather than the

competent authority arrangements for taking account of schemes within the setting of inspection frequencies.

Thus, whilst the document does not address what the competent authority needs to do if they award recognition to self certification within the application of official controls, it does highlight that the competent authority procedures need to be considered.

4.1.5 Coverage of schemes by sector and product

The schemes apply mainly to the feed, primary producer, distribution and processing stages of %arm to fork+. Schemes cover production and processing of meat, eggs, dairy, fruit, vegetables and (generic schemes) fish processing. The product specific production schemes cover most food stuffs except seafood⁴⁸, fats and oils, sweeteners, spices and nuts. The generic schemes are used mostly for processing and generically cover all processing activities.

Two of the third party assurance schemes evaluated here specifically addressed hygiene within catering and retail sectors, namely British Sandwich Association and the Guild of Butchers. Although the generic schemes and SALSA apply to all activities in principle, they are mostly applied to processing. This reflects the point that the main prompt for these schemes was the need for retailers to provide assurance to customers that their products are ‰afe+and that they have applied due diligence. Therefore, the schemes reflect a ‰ackward+strategy of assurance down the food chain. At least one scheme (STS Solution**\$**) focuses on <u>suppliers</u> to public sector caterers such as schools. The implication for the Agency is that giving recognition to business assessed by current schemes will have little impact on inspection activities for the large number of catering, hospitality and retail businesses.

It is difficult to estimate the proportion of food businesses that belong to a third party assurance scheme, due to incomplete data on membership levels and the categories used by the Agency to count premises do not align to the standards. Nonetheless, it was noted that:

- Responses from AFS and other primary production schemes indicated approximately about 70,000 members, which compares to 144,777 farms reported by Defra in England. Thus at least 50% of farms may be member, but probably varying between products. Also the proportion of produce covered by scheme members may differ from the latter proportion if larger farms are more likely to be members.
- The Agricultural Industries Confederation report that they represent 90% of animal feed, 95% of fertiliser, 80% of seed, 90% of grain and oilseeds and 90% of crop protection.
- Data from BRC (3,339 UK sites listed in their directory) and other schemes (including Synergy22000, SALSA and FSSC22000) covering processors indicated *about* 4000 members, although this may include some overseas firms. With 15,516 manufacturers cited by the Agency this means that about 25% of manufacturers could be members. Information was not available to determine UK membership of IFS Food or STS Solutions.
- Responses from schemes indicated no more than about 100 to 200 caterers belong to schemes (although it is uncertain how many belong to generic standards). With

⁴⁸ As previously noted, Responsible Fishing Scheme covers fish hygiene aboard vessels and during landing for commercial sea fishing vessels.

388,221 restaurants and caterers and 132,263 retailers, it was apparent that less than 0.1% of restaurants, caterers and retailers belong to the evaluated schemes.

• There are also 899 importers/exporters reported by the Agency and 8841 wholesale and distribution businesses. It is unknown what proportion of these belongs to a scheme.

Thus overall, assuming about 690,517 food businesses (combining Defra count of farms with Agency count of other food businesses), about 10% belong to a scheme, obviously skewed towards primary production and processing. However, the proportion of produce covered by membership could be higher if larger firms are over represented amongst schemes.

An option here is for the Agency to encourage new standards and assessment schemes to be applied and/or developed for these sectors, based on the criteria developed in this project. Such encouragement could take the form of the Agency alerting schemes to the potential for a reduced frequency of regulatory inspections of approved food businesses.

The Agency has launched the national Food Hygiene Rating Scheme (FHRS) which will apply in particular to retail, restaurant and catering outlets. The recommendations in the October 2010 report of Lord Youngs review of health & safety laws, £ommon Sense Common Safetyd⁹ included [®] pen the delivery of inspections to accredited certification bodies+(p17). An option is to ask any third party assurance scheme in the retail and catering sector to also issue FHRS certificates using the same scoring scheme as local authority environmental health officers (or require this if they wish to earn recognition).

Again, notwithstanding the role of generic schemes such as BRC, an option is to encourage further product specific schemes to be developed for the missing foodstuffs as well as schemes for importers, retailers and catering activities.

4.2 Previously cited schemes

A number of schemes have already been listed by the Agency, for consideration when planning inspections. The findings of this evaluation do not confound this. These include:

- The Red Tractor scheme and its modules:
 - Assured British Meat (ABM)
 - Assured British Pigs (ABP)
 - Assured Chicken Production (ACP)
 - Assured Combinable Crops Scheme (ACCS)
 - Assured Produce (AP)
 - Dairy Farm Assured⁵⁰
- Genesis Quality Assurance (GQA)
- Quality Meat Scotland (QMS)
- Farm Assured Welsh Livestock (FAWL)
- Northern Ireland Beef/Lamb Farm Quality Assured Scheme (NIBLFQAS)

⁴⁹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/60905/402906_CommonSense_acc.pdf (Downloaded December 2010)

⁵⁰ The Agency is consulting on recognition of Dairy Farm Assured at the time of reporting.

Scottish Quality Cereals (SQC) has also been assessed as meeting the requirements of the legislation and an information exchange mechanism developed with the FSA Scotland.

As with all schemes, further consideration could be awarded to the need for risk based assessment frequencies, the use of tests of food samples and communication of imminent risks to local authorities and other enforcement organisations. Consideration could also be given to whether the standard setting organisations and /or the approval organisations could provide further information to approved organisations on points such as common types of non-conformances and how best to improve performance, in the form of (for example) web based advice. Such advice would not be specific to a business but might help fulfil the informal advisory function carried out during inspections.

4.3 Schemes that could be considered for recognition by the Agency

This evaluation would suggest that consideration could be given to giving recognition to the following schemes (in no particular order):

Scheme Owner	Standard
Generic Schemes	
British Retail Consortium	Global Food Standard v5
FSSC	FSSC 22000
Synergy Global Standardisation Services	Synergy 22000
IFS	International Food Standard v5
STS Solutions	Small & Regional Certification Scheme
	Code of Practice and Technical Standard for Food Processors and Suppliers to the Public Sector v3
	Code of Practice and Technical Standard for Food processors and Suppliers to the non Public Sector (2007).
SALSA	SALSA
	SALSA + SCA Standard
NSF-CMi	Đue Diligenceq- Manufacturing Standards
	Due Diligenceq- Wholesale, distribution and storage
Feed	
AIC	Universal Feed Assurance Scheme (UFAS), Trade Assurance Scheme for Combinable Crops (TASCC), Feed Materials Assurance Scheme (FEMAS), Fertiliser Industry Assurance Scheme (FIAS).
The Grain and Feed Trade Association	The GAFTA Trade Assurance Scheme (GTAS)
GMP+FAS	GMP+ Feed Assurance Scheme
Farm Assurance Schemes	
Scottish Quality	Farm Assurance

Table 8: Additional schemes that could be considered for recognition by the Agency

Scheme Owner	Standard
GlobalG.A.P.	Integrated Farm Assurance (all scopes)
	Compound Feed Manufacturing Standard,
	Plant Propagation Material standards
Meat Processing	
Scottish Quality	Wild Venison
Guild of Q Butchers	Guild of Q Butchers Standard
British Meat Processors Association	British Quality Assured Pork
English Beef & Lamb Executive	(EBLEX) Quality Standard Mark*
British Meat Processors Association	British Quality Assured Pork (also Sausage, Bacon and Ham standards)
National Association of Catering Butchers (NACB)	Standard for Catering Butchers
Eggs	
British Egg Industry Council	British Lion Egg
Sandwiches	
British Sandwich Association	British Sandwich Association Accreditation scheme
Malt Processing	
Maltsters' Association of Great Britain	The Assured UK Malt Technical Standard

** The EBLEX and BMPA schemes rely on other assurance schemes for specific elements of the supply chain. As such it is not by itself a standard but a way of assuring against a family of standards.

As the generic schemes (BRC, Synergy22000, IFS, FSSC22000) do not all cover animal health and welfare, this may limit the role of some schemes with respect to primary production and abattoirs, from the perspective of recognising them within inspection frequencies. Therefore, as they currently stand, the generic schemes offer more scope with respect to non-livestock production, processing, transport, retail and catering.

Also, there were some specific issues with many schemes, including ensuring they fully cover relevant food hygiene legislation.

The Seafish Responsible Fishing Scheme and the Food Certification Ltd assessment against Integrated Aquaculture Assurance standard could be evaluated in full with respect to be gaining earned recognition. The Seafish scheme uses good practice guidance that is directly aligned to food hygiene regulations, assessments are completed every 3 years by UKAS accredited auditors, with surveillance visits by Seafish every 18 months.

The Best Aquacultural Practice standards met most of the Essential Criteria and could also be considered however they currently operate primarily in the USA and may have limited application to UK products.

4.4 Schemes not currently recommended for consideration for earned recognition

The following schemes were assessed as not specifically addressing food safety and hygiene enough for the sake of earned recognition or do not constitute third party schemes (e.g. retailers own schemes):

- Livestock Transport Assurance
 Scheme
- Linking Environment & Farming (LEAF)
- Assured Land Based Contractor
- Welsh Organic Scheme
- Organic Farmers & Growers
 Certification
- Biofertiliser Certification Scheme
- Freedom Foods . only covers welfare
- Soil Association- just organic status;
- The Guild of Conservation Grade Producers (not food safety and hygiene)
- British Soft Drinks Association Fruit Juice Quality Control Scheme (authenticity only);

- Cert ID Non-GMO Standard (GMO only)
- Cert ID EU Regulatory Compliance Standard (GMO only)
- Livestock Driver Competency Scheme . not an assurance scheme;
- Game Shoot Standards Assurance Scheme (only shooting standards)
- Scottish Organic Producers Association (SOPA)
- Superior Quality Shetland Salmon (SQSS). just quality.
- Tescos Natures Choice and other Tesco standards;
- Marks and SpencersqFarm Assurance.

4.5 Areas for further research and development

The single most important area for further research was considered to be securing independent evidence of the outcomes of assurance schemes with respect to levels of compliance, contamination and disease. There are practical difficulties in achieving a controlled comparison of compliance rates before and after businesses gain third party approval. These include the fact that many businesses have already joined schemes, businesses that join schemes may differ from non-members and membership of schemes may coincide with other factors such as customer demands. Such before and after comparison may be more feasible for those sectors which currently have lower rates of participation in third party assurance schemes, such as catering.

An option is to repeat the retrospective correlation work completed as part of the consultation on Assured Dairy Farms. As previously noted, the analysis compared inspection and assessment results to determine the degree of correlation. If assessment results align to inspection results, this suggests that third party approval can be taken into account when setting the frequency of inspection and considering interventions. A retrospective comparison should be possible for many schemes, including those in primary production, processing and catering. This would require the scheme operators to share data with the Agency for a number of previous years.

Other points that could benefit from further consideration include:

 The criteria by which the Agency recognises schemes with respect to the setting of inspection frequencies;

- The processes by which the Agency assesses schemes and monitors the performance of schemes;
- How the Agency might align food surveillance to help verify the outcomes of third party certification schemes.

These latter three points could, in the opinion of the researchers, be addressed based on current knowledge and do not necessarily require research.

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6 APPENDIX A: EVALUATION CRITERIA

The rationale for these criteria were stated at section 1.2.2. Criteria 19, 20, 26 to 36 were categorised as Essential.

6.1 Standards setting process

Approach to setting standards

- 1) The standard should be developed by a <u>Standard Setting Bodyqwith demonstrable</u> expertise, experience and professional standing in the sector to which the standard relates e.g. trade associations and include input from stakeholders.
- 2) Standard development and maintenance should not be funded directly by individual food businesses or their customers.
- 3) The standard setting body should adopt a hazard based approach to setting standards, drawing on HACCP or an equivalent risk assessment process that identifies food safety hazards and controls.
- 4) The standard setting body should have consumer representation, such as consumer organisations or individual members of the public, within the standard setting process.
- 5) The Standards Setting and/or Approval Bodies should collect information that enables it to assure that the standards are achieving acceptable standards of food safety and hygiene . <u>such as</u>:
 - Monitoring/ surveillance of (a sample of) food samples (testing) or assess food sample test results from assured business completed by or for third parties (to verify and monitor whether food hygiene standards are achieving acceptable levels of food hygiene);
 - Tracking frequency of major non-conformance that constitute an imminent risk to health;
 - Tracking the frequency of product safety recalls.

Note: Tracking of assessment results alone may not be sufficient to verify that acceptable levels of food safety and hygiene are being achieved by the requirements of the standard.

- 6) The Standards Setting Body should collect and review data at least annually regarding food safety and hygiene standards being achieved by assured businesses. This may be, for example, trends in assessments scores, frequency of product recalls and trends in results of food surveillance/samples.
- 7) Feedback is sought from Assurance Scheme stakeholders to identify potential changes to the standard and associated approval processes.
- 8) The need for amending approval requirements and processes should be reviewed at least annually.
- 9) The standard should be subject to regular review to ensure currency with legislation.

6.2 Control of use of logos

10) There should be procedures in place governing the use of any logos to limit use to those food businesses with current *pp*provedqstatus, such as a licensing scheme.

11) The Standard Setting Body and/or Approval Bodies should be required to monitor the use of logos and take appropriate action when necessary.

6.3 Standards setting body

Standards setting body

- 12) Has UKAS (or equivalent organisations in other countries) accredited any Approval Bodies in respect of this standard?
- 13) The Standard Setting Body should be independent of the organisation(s) undertaking assessment and awarding approval or have independent oversight of its standards setting.
- 14) The governing board should represent the full range of stakeholders. (approved businesses, business clients of approved businesses, consumers, local authorities/other enforcement organisations, approval bodies and welfare interests).
- 15) The standards setting committee should have an independent chair, such as an expert.
- 16) The standard and associated assurance scheme should be fully accessible to food businesses seeking approval.
- 17) Standards Setting Bodies (or approval bodies) should publicly report (on websites) <u>aggregated</u> key performance indicators such as the frequency of assessments and rates of non-conformance.

6.4 Scope of standard

Alignment to legislative requirements

- 18) The standard should state and describe the range of activities covered by the standard.
- 19) The standard should incorporate <u>all</u> legislative requirements as a minimum, those from industry and Agency Codes of Practice.

This should cover management arrangements including:

- Food safety policy;
- Management arrangements and responsibilities;
- Record keeping, <u>e.g.</u> of HACCP, analysis of samples, occurrence of disease (in primary production), staff training etc;
- Internal audit and review processes;
- Serious incident procedures;
- Procedures for corrective action in event of non-conformance.

HACCP (or in the case of primary production a set of food safety management arrangements developed using risk assessment based approach to the identification and control of food safety hazards completed by or used by the standards setting body).

Specific food safety and hygiene requirements covering, where appropriate:

- Food safety and hygiene procedures;
 - Temperature control and the cold chain;
 - Pest control;

- Cleanliness and disinfection of plant, utensils, equipment, floor spaces, surfaces etc;
- Water supply and testing of water supply, e.g. for product cleaning;
- o Contamination risk controls;
- Maintenance requirements, e.g. of temperature controls, storage facilities and ventilation systems;
- Food handling procedures, e.g. product separation;
- Personal hygiene.
- Food treatment, holding and processing requirements, e.g. heating, cooking requirements, hot holding, tise by qmanagement and packaging;
- Checking and acceptance of feed, ingredients and foodstuffs;
- Staff training;
- Supervision of staff;
- Building design and layout;
- Facilities, such as for veterinary inspectors;
- Sampling and analysis, including microbiological criteria as appropriate;
- Labelling;
- Traceability. There should be a process for one up and one down tracing of food. Examples include passport systems for birds and eggs. .

Note: The specific requirements should be appropriate for the type of food hazards covered by the assured businesses, such as primary production versus transport versus processing and retailing.

Note: A documented food *safety management system* is not required by law and so would be an additional requirement if included in a standard, although documentation is required for specific points such as procedures and record keeping.

- 20) Animal health and welfare requirements should be included where appropriate (primary producers, distribution and abattoirs) and also be based on (as a minimum) a recognised code of practice and legislative requirements.
- 21) Food safety and hygiene standards should be compulsory along with animal health and welfare in the case of producers, animal transport and abattoirs.

Transparency

22) The approved business should be required to notify the Approval Body of any major complaints or enforcement about food safety/hygiene brought or pending against it with respect to any issues covered in the Standards.

6.5 Approval Bodies

- 23) The Approval bodies should be independent of the standard setting body and of the assured businesses.
- 24) Approval Bodies should be self-funding.

25) The Approval Body should be accredited to an appropriate international standard e.g. EN45011⁵¹ or ISO/IEC 17021 by an Accreditation Body e.g. UKAS or have equivalent quality management systems and procedures in place for delivering an impartial & professional approval process.

Note: Whilst EN45011 and ISO/IEC 17021 proscribes approval bodies from giving advice, the provision of advice by assessors is not considered to be a problem with respect to schemes gaining earned recognition.

Approval Bodies should have suitable provision for quality management including the following:

- A clearly defined management structure with defined responsibilities for key personnel;
- Systems and procedures should be in place to ensure that:
 - Record the conduct of assessments and their results to enable monitoring and review of certification activities and their outcomes.
 - Assessments are conducted consistently in accordance with defined procedures;
 - Approval decisions are made fairly and on the basis of objective evidence;
 - The approval process is reviewed annually as a minimum to ensure the approval scheme is operating effectively and in accordance with the requirements of the Standard Setting Body. The review and associated actions should be documented.

6.6 Assessor authorisation

- 26) Criteria for the selection of assessors should be defined and should cover:
 - Minimum professional and/or vocational qualifications, such as a relevant degree or NVQ level 4 in agriculture or food technology,
 - An appropriate minimum level of relevant experience in food safety and hygiene;
 - Independent from the business being assessed;
 - Competence requirements, including;
 - Assessment Skills;
 - Assurance scheme operations;
 - Knowledge of relevant legislation and Codes of Practice;
 - Food safety and hygiene (specifically an understanding of HACCP);
 - Knowledge of industry sector.
- 27) Approval Bodies should have procedures in place for:
 - Initial approval of assessors, such as requiring satisfactory conduct of a minimum number of assessments shadowed by an assessment manager;
 - Routine evaluation of assessor performance, such as shadowing one assessment per year;

⁵¹ BS EN 45011:1998; General requirements for bodies operating product certification systems

- Requirement for minimum level of Continuing Professional Development, such as 5 days of relevant training each year;
- Requirement for minimum numbers of assessment to be undertaken per annum, such as 5 per year.

6.7 Assessment process

Assessment frequency

28) The frequency of assessment should be risk based.

For example, frequencies may match those cited in relevant FSA⁵² or other local authority guidance such as six months for very high risk (A) businesses, 12 months for high risk (B), 18 months years for medium (C) risk and 24 months years for low risk (D) businesses (p143).

Unannounced assessments

29) The inspection process should include an appropriate number of short notice (e.g. three days) assessments and possibly unannounced re-visits in the event of verifying correction of major non-conformances.

On site assessment method

- 30) Assessment duration should be determined by the size, scope and complexity of the food business
- 31) Each assessment should, as a minimum, incorporate the legislatively required elements of the standard.
- 32) The assessment process should include:
 - Visual inspection of sites;
 - Observation of operations/activities;
 - Use of questioning techniques to evaluate management and staff knowledge;
 - Examination of records.
- 33) The assessment should be supported by a standard checklist or similar aid that covers pertinent food safety and hygiene requirements.
- 34) All Assessors should keep a comprehensive record of assessment findings. This should include, as a minimum;
 - Date of assessment
 - Name of assessor undertaking the assessment
 - Scope of the assessment
 - Non-conformities identified and categorisation
 - Timescales required for correction of non-conformances
- 35) The decision to approve a food business should be made:
 - By a suitably qualified and experienced individual employed within the Approval Body;

⁵² See Annex 5 of the Food Law Code of Practice June 2008 for an example of a risk based inspection system. <u>http://www.food.gov.uk/multimedia/pdfs/codeofpracticeeng.pdf</u>

• Based on the availability of satisfactory evidence of rectification of non-conformities relating to significant food safety, hygiene, animal health or animal welfare.

6.8 Responding to non-conformance

Matching action to the type and severity of non-conformance

36) Guidance should be provided to Approval Bodies regarding the action to be taken for each type and severity of non-conformance (where severity relates to the risk posed to health of the non-conformance).

Non-conformance may be graded as, for example, Minor or Major. Guidance may state, <u>for example</u>:

- A major non conformance with 'Key Standardsqmay result in withholding or suspending approval until it is corrected;
- Non-conformance with Dther Standardsqshould require corrective action within an agreed timescale.
- The Approval Body reserves the right to withhold certification in the case of a large number of such non-conformances or in the event of the same non-conformance being found on successive assessments.
- In the event that non-conformance is not corrected within time period agreed with the assessor, assured status may be withdrawn.
- If the business has repeatedly (on previous assessments) failed to comply, this may be taken into account when deciding whether or not to suspend or withdraw approved status.

Criteria for suspending approval or removing businesses from the scheme (loss of approval / revoked membership) should be stated.

Typical guidance may be:

- Major non-conformance means that there is little or no evidence that the requirement of a Standard is met.
- Minor non-conformance is recorded when there is evidence that the producer has taken steps to comply but with some gaps.

Verifying correction of non-conformance

37) There should be guidance on what evidence is required by the assessor for verifying that a non-conformance has been corrected.

For example, evidence of correcting non-conformance may include:

- A re-assessment visit;
- Documentary evidence, such as photos;
- Third party letter, such as from a veterinarian.
- 38) The non conformance and verification of correction of the non-conformance should be recorded by the assessment body.

Appeals process

- 39) The business should have the right to appeal in the event of a failure to gain or maintain approved status.
- 40) The Approval Body should have a documented and published process for appeals made by businesses.

Sharing information on conformance problems

41) There should be an effective process for communicating alerts (either from the Agency or from other assessors) about food safety and hygiene problems that might be relevant to a number of food businesses to assessors, local authorities/other enforcement organisations and businesses.

6.9 Communicating with Local Authority or other relevant enforcement organisation

- 42) Assessors should advise the relevant enforcement authority (e.g. local authority) in the event of serious non-conformances representing an imminent risk to public⁵³ or animal health that has not already been rectified by the assessed business.
- 43) Approval Bodies or the Standards Setting Body should have a procedure (developed by agreement between these bodies and the enforcement authorities) for communicating with local authorities or other relevant enforcement authority that a business has been suspended or removed from the scheme (due to nonconformance) should be in place.
- 44) There should be a system in place to notify local authorities and other relevant enforcement authorities of the approved status of businesses.

6.10 Information provided to consumers about the scheme.

- 45) The Standard Setting Body should ensure that information about the Assurance Scheme is made publicly available to allow access to interested parties, such as (on a website) regarding:
 - The products covered by the scheme;
 - What the scheme seeks to achieve and benefits for consumers;
 - Do requirements exceed legal minimum and if so in what way;
 - How the scheme ensures standards are achieved;
 - Scheme arrangements for monitoring delivery of standards;
 - How is non conformance dealt with;
 - Evidence for any claimed food safety benefits;
 - Composition (membership) of standards setting board.

Logo/label

46) The logo (if used) should have a clear consumer message and if one logo covers more than one scheme whether standards are comparable, and state where can consumers find further information.

Consumer feedback

47) There should be a means by which consumers and other interested and affected parties are invited and enabled to provide feedback on the scheme.

⁵³ For example, where food has been produced or distributed where there was a serious risk of cross contamination, insufficient processing temperatures, operating outside of control conditions allowing *Clostridium botulinum* to multiply etc. See Food Law code of practice for more examples of conditions requiring prohibition or detention. http://www.food.gov.uk/multimedia/pdfs/codeofpracticeeng.pdf

7 APPENDIX B: COPY OF QUESTIONNAIRE ISSUED TO SCHEME OPERATORS

ASSESSMENT AND COMPARISON OF THIRD PARTY ASSURANCE SCHEMES IN THE FOOD SECTOR: A COMMON FRAMEWORK

Food Standards Agency commissioned review

The Food Standards Agency acknowledges that third party assurance schemes can usefully contribute to the determination of the frequency and type of risk-based official controls. Both Regulation (EC) 882/2004 on Official Feed and Food Controls and the current Food and Feed Law Codes of Practice acknowledge the value of self-checks and other intelligence. Intelligence derived from conformity to private standards can potentially benefit business and competent authorities by reducing the inspection burden and by enabling the better targeting of inspection. The Food Standards Agency wishes to: identify current third party food and animal feed assurance schemes operating in the UK and assess their fitness for purpose.

Greenstreet Berman has been invited to undertake this research on behalf of the Agency. This questionnaire aims to gather information on how standards are set, the audit process and the governance of the schemes, and should take no longer than about 30 to 60 minutes to complete. Your responses will be used in our review.

Due to the very tight timescales of this project if we are not able to gather information from publically available sources or from responses to this questionnaire then we will not be able to fully evaluate your scheme as part of this research.

Response period

This is a very fast track project. We would be grateful for your response by 19th November. We appreciate this is a very tight time scale. **The questionnaire is mostly tick box and so should not take long to complete.**

What we are asking you to do

We ask that you complete this question by pen or electronically and send it back to us at

Abu Shahriyer - 161 Drury Lane, Covent Garden, London, WC2B 5PN

abu.shahriyer@greenstreet.co.uk

We may have other questions. If we do, we will call you.

Contacts at Greenstreet Berman

If you have any questions about this questionnaire please contact Rachel Smith on 0118 938 7718 (rachel.smith@greenstreet.co.uk) or Abu Shahriyer on 020 3102 2112 (abu.shahriyer@greenstreet.co.uk).

Food Standards Agency contact

If you have any questions for the Food Standards Agency please contact Daniel Lovelle-Díaz on 020 7276 8155 or at daniel.lovelle-diaz@foodstandards.gsi.gov.uk

Write in name of the standard(s) you are reporting on		
Write in contact details of the person to whom we can ask further question	Name Phone no Email	
Name of your organisation		

In all cases please answer the questions with respect to the standard(s) named above.

Standard setting body

Tick one box per question	Yes	No	Do not know or N/A
 Is the standard setting body independent of the organisation(s) undertaking assessment and awarding approval? 			
2. Does the standard setting committee have an independent chair?			
3. Is the standards setting body self funding, such as by fees from approval bodies?			
Please briefly state how the standards funding body is funded:			

Does the standard setting committee include representatives of:	Yes	No	Do not know or N/A
4. Consumers			
5. Regulators			
6. Retailers or processors			
7. The assured organisations			

Approach to setting standard

Tick one box per question	Yes	No	Do not know or N/A
8. Was a hazard (HACCP) approach used to develop the standard(s)?			
9. Is standard development and maintenance funded directly by individual food businesses?			
10.Does the standard setting body collect and review data at least annually regarding food safety and hygiene standard being achieved by assured businesses? This may be, for example, trends in audits scores, frequency of product recalls and trends in results of food surveillance/samples.			
11. Is there a regular check of whether the standard needs to be updated to match changes in regulations, e.g. once a year?			
12.Is feedback sought, e.g. each year, from Assurance Scheme stakeholders to identify potential changes to the standard and associated approval processes?			

Control of use of logo's

Tick one box per question	Yes	No	Do not know or N/A
13. Are there controls regarding the use of any logo you use by assured organisations? Such as a licensing scheme.			

The standard

Tick one box per question	Yes	No	Do not know or N/A
14.Do the standards cite pertinent food safety and hygiene regulations that must be met?			
15.Do the standards refer to or require compliance with a named code of practice(s)?			
16.If the standards refers to a code of practice(s), has this code been developed or approved by the Food Standard Agency or other regulatory body?			
17.Are all of the food safety and hygiene standards compulsory?			
18.Are (where included in the scheme) animal health and welfare standards compulsory?			
19.Do (where included in the scheme) animal health and welfare standards refer to or require compliance with a named code of practice(s)?			
20.Were (where included in the scheme) animal health and welfare codes of practice developed or approved by Defra or other regulatory body?			

Information provided to consumers about the scheme.

Which of the following is provided on websites regarding the scheme	Yes	No	Do not know or N/A
21.Summary data on assessment results, such as the proportion of audits with minor and major non- ⁵⁴ compliances, and the number of organisations where certification was withheld due to non-compliance			
22. The products or activities covered by the scheme			
23. What the scheme seeks to achieve and benefits for consumers			
24.Do requirements of the scheme exceed the legal minimum (and if so in what way)			
25.A list of approved organisations			
26.How the scheme ensures standards are achieved;			
27.Scheme arrangements for monitoring delivery of standards;			
28.Evidence for any claimed food safety benefits;			
29.Composition (membership) of standards setting board.			
30.The logo/label and its meaning			

Approval bodies

Tick one box per question	Yes	No	Do not know or N/A
31.Are all Approval Bodies required by the standard setting organisation to have EN45011 accreditation by United Kingdom Accreditation Services (UKAS) or an equivalent European/International accreditation, such as ISO/IEC 17021:2006?			
32.If they are not required to have EN45011 or equivalent are they required by the Standard Setting body to have comparable quality management systems?			
33.Are Approval Bodies required to record the number audits undertaken and their results?			

Do the requirements for assessors include:	Yes	No	Do not know or N/A
34.A relevant degree, such as in agriculture or food technology?			
35.A minimum number of years experience in agriculture, food processing etc?			
36.Completion of a certificated course in auditing?			
37.Completion of a minimum number of audits accompanied by another auditor prior to being % igned off+.			

⁵⁴ The term compliance was used in the questionnaire. This term was used to refer to conformance with the standard rather than compliance with regulations.

38.Completion of a minimum number of audits per year to maintain their authorisation.		
39.Completion of a minimum amount of Continuing Professional Development each year.		

Please describe the requirements for assessors qualification, training, assessment and CPD here please:

Assessment frequency and process

Tick one box per question	Yes	No	Do not know or N/A
40.Is the frequency of assessments guided by a risk assessment? (For example, audits every 6 months if very high risk, every 12 months if high risk, every 24 months if medium risk and so forth)			
41.Is there a set frequency of assessment such as every 12 months?			
42.If the frequency of assessments varies according to a risk assessment, please state the risk categories and the frequencies for each risk category here			
43.If assessments are completed at a set frequency, such as 12 months, please enter the frequency here.			

44.Please indicate, approximately , what proportion of assessments are unannounced or short notice (3 days or less). We do <u>not</u> expect an exact value.	None	Few (<20%)	Some (21% to 40%)	About half (41% to 59%)	Many (60% to 80%)	Most >80%
Unannounced audits						
Short notice audits						

Do assessments include:	Yes	No	Do not know or N/A
45.Assessment of compliance against all aspects of the standard?			
46. Visual inspection of cleanliness, plant layout, pest control etc?			
47.Observation of activities, such as storage of processed meats?			
48.Assessment of paperwork, such as record keeping?			

49.Assessment of the food safety knowledge of managers and staff?		
50.An assessment of official controllers reports e.g. Environmental Health Practitioners inspection reports or Official Veterinary reports.		
51.The use of checklists?		
52.A documented record of the results of each assessment?		

53.Is there a stated requirement for the assured business to notify the Approval Body of any enforcement action, prosecution or customer complaints about food safety, hygiene, animal health or welfare brought (or likely to be brought) against	No	Do not know or N/A
it?		

54.Do the Approval Bodies review the results of food samples (testing) or	Yes	No	Do not know or N/A
assessment of food sample test results completed by independent or for third			
parties? (Such as for a random sample of assured businesses.)			

Responding to non-compliances

	Yes	No	Do not know or N/A
55.Is written guidance provided to Approval Bodies regarding the action to be			
taken for each type and severity of non-compliance?			

Does the guidance on responding to non compliance include the following:	Yes	No	Do not know or N/A
56.Grading of non-compliance, such as minor versus major.			
57.Definitions and examples of what constitute minor and major non- compliances.			
58.Indication of which parts of the standard are % ey+. where a major non- compliance may result in suspension of approval.			
59. The timescale within which corrective action is needed.			
60.A statement that approval will be with held or withdrawn if a major non- compliance is not corrected within the required time period.			
Please briefly state the criteria for not approving a business:			

What evidence is accepted for correction of a major non-compliance:	Yes	No	Do not
			know or
			N/A

61.Re-visit by the assessor.		
62.Documentary evidence. (Such as photog provided by the business)		
63.Third party letter. (Such as from a veterinarian.)		
64. The timescale within which corrective action is needed for minor and major non-compliances, such as 3 months to prove corrective action has been taken.		

	Yes	No	Do not know or N/A
65.1s there a stated process for the assured business to appeal against the revocation of their approved status, stated within scheme procedures?			

Communicating with Local Authority or other relevant enforcement body (P/F)

	Yes	No	Do not know or N/A
66.Is there a procedure for notifying local authorities or other relevant enforcement bodies which business have been approved, such as a sharing a list every 3 months?			
67.Is there an agreed (with LACORS for example) procedure for regularly communicating with local authorities or other relevant enforcement bodies that a business has lost their approval due to non-compliance?			
Please email us a copy of this agreement?			

Recognition of assured status by local authorities

	Yes	No	Do not know or N/A
68.Do you know of current examples of local authorities or other food safety/hygiene regulators recognising the assured status of organisations (<u>in your scheme</u>) when deciding on the frequency of their inspections of food businesses? i.e. reducing			
the frequency of inspection for approved businesses.			

Audit and non-compliance data

We would ask for aggregate data on the outcome of audits. If you record outcomes in the form of minor and major non-compliance, please complete the following table. Please enter data below.

	2008	2009	2010
Total number of organisations audited			
Number of Minor non-compliances			

Number of Major non-compliances		
Number of certificates with held or suspended due to non-compliance		
Number of organisations withdrawn from scheme voluntarily		

If you do not record audit results in this format, please provides copies of aggregated results in whatever manner you hold them.

We do <u>not</u> want results per assured business, just aggregate results for assured organisations as a whole.

Evaluations of your scheme

	Yes	No	Do not know or N/A
69. Have you had the impact of your scheme on performance been evaluated? Such as a review of product safety recall rates, rates of non-compliance, assessment scores.			

If your scheme has been evaluated we would ask for a copy of the report or a reference to it.

Please offer any additional comments here please.

Thank you very much for your assistance.

Please return this questionnaire to:

Abu Shahriyer - 161 Drury Lane, Covent Garden, London, WC2B 5PN abu.shahriyer@greenstreet.co.uk

Glossary

The following definitions are offered.

Assurance Scheme: A scheme for assessing and approving businesses against a defined standard. Those food businesses achieving *approvalqunder* an assurance scheme may be considered to be operating at a particular level or have achieved a certain *s*tatusq

Standard Setting Body: A group of qualified individuals who represent stakeholders and who define the criteria required within the standard and the requirements for organisations that will assess businesses against the standard.

Approval Body: An organisation offering an approval service for those seeking to demonstrate compliance with the standard. This body may be termed a Certification Body or an Inspection Body depending on the methods and approach taken to the approval process.

Accreditation Body: An organisation normally operating on a national or international level and approved by government to assess and accredit Approval Bodies against relevant national or international standard e.g. EN45011. UKAS is an Accreditation Body.

Inspection: ±valuation for conformity by measuring, observing, testing or gauging the relevant characteristics.q

Inspection is generally based on observation at a moment in time and is specific to stated characteristics e.g. whether a surface is clean

Audit: A systematic and independent examination to determine whether quality/safety activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.q

Audit is generally based around questioning personnel, reference to documents, observations and challenging the systems in place to establish whether the criteria within the standard are being met consistently. This includes examination of records. Inspection is an element of audit e.g. undertaking a test of the traceability provision within a food business.

Certification: The issue of a certificate to demonstrate that the food business has achieved all the requirements of the standard. The certification decision is made by a suitably qualified and authorised person (or persons) who is independent of the person undertaking the assessment of the food business.

Assessment: Used within this document to mean the work undertaken to assess the food business against the requirements of the standard.

8 APPENDIX C: LIST OF SCHEMES CONSIDERED

8.1 List of schemes

Table 9: Shortlisted schemes and standards

Scheme name	Standard setting body or "representative" assessor organisation
Beef & Sheep Standards	Genesis QA
Pig Standards	
Arable & Sugar Beet Standards	
National Association of Catering Butchers	National Association of Catering
3	Butchers
Northern Ireland Beef and Lamb Farm Quality	Livestock and Meat Commission for
Assurance Scheme	Northern Ireland
	British Meat Processors Association
British Quality Assured Pork (also Sausage, Bacon	
and Ham standards)	(BMPA)
BRC Global Standard Food Safety	BRC
Synergy 22000	Synergy Global Standardisation
	Services
IFS Food Version 5	IFS
IFS Logistics	
ISO 22000	International Organization for
	Standardization (ISO)
Code of Practice 2008 Small and Regional	STS Solutions
Code of Practice 2000 Small and Regional	
Code of Practice (Non Public Sector)	
Code of Practice 2009 Healthcare & Catering -	
Multiple Sites - Catering	A suries alternal hashes tries. On a factor stime
Universal Feed Assurance Scheme (UFAS), Trade	Agricultural Industries Confederation
Assurance Scheme for Combinable Crops	(AIC)
(TASCC), Feed Materials Assurance Scheme	
(FEMAS), Fertiliser Industry Assurance Scheme	
(FIAS).	
The GAFTA Trade Assurance Scheme (GTAS)	The Grain and Feed Trade
	Association
Leaf Marque Standard Version 9	Leaf Incorporated (Linking
	Environment and Farming)
Farm Assured Welsh Livestock	Welsh Lamb & Beef Producers Ltd
Quality Meat Scotland Farm Assurance	Quality Meat Scotland
Scottish Quality Farm Assured Combinable Crops (SQC)	Scottish Food Quality Certification Ltd
Welsh Organic Scheme	Welsh Lamb & Beef Producers Ltd
GLOBALG.A.P. Integrated Farm Assurance (all	GLOBALG.A.P.
scopes), Compound Feed Manufacturing	
Standard, Plant Propagation Material standards	
orandara, mani mopagarion material standarus	

Scheme name	Standard setting body or "representative" assessor organisation
Organic Farmers & Growers Standards	Organic Farmers & Growers (Defra controlled)
The Assured UK Malt Technical Standard	Maltsters' Association of Great Britain
Red Tractor Farms Assurance (all variations)	Assured Food Standards
Scottish Quality Wild Venison (SQWV) - Stalking and carcass handling.	SFQC ltd.
Biofertiliser Certification Scheme (PAS110 and ADQP)	Renewable Energy Assurance Limited (REAL)
BAP Seafood, Shrimp, Tilapia, Channel Catfish, Shrimp Hatchery, Feed Mill and Pangasius Farm Standards	Global Aquaculture Alliance
British Lion Quality eggs	British Egg Industry Council
Food Safety System Certification 22000 (FSSC22000)	Food Safety System Certification
Assured Land Based (Mobile seed Processing) Contractor scheme.	National Association of Agricultural Contractors
Assured Land Based (Mobile Feed Mixing and Processing) Contractor scheme.	National Association of Agricultural Contractors
Assured Land Based (Agricultural Operations) Contractor scheme.	National Association of Agricultural Contractors
British Sandwich Association Accreditation Scheme	British Sandwich Association
EBLEX Quality Standard Scheme	EBLEX
Safe And Local Supplier Approval (SALSA) incorporating SALSA plus SCA (Specialist Cheesemaker Association)	SALSA
Q Guild Hygiene and Quality Audit	Q Guild of Butchers
Wholesaling, Storage & Distribution	NSF-Cmi
NSF-Cmi Due Diligence Standard - Food	NSF-Cmi
Livestock Transport Approval	Defra
Feed Safety Assurance	GMP+
EU Feed Additives and Premixtures Quality System . FAMI-QS	FAMI-QS Asbl association

8.2 Scheme Descriptions

8.2.1 Previously recognised product specific schemes

Scheme Name	Genesis QA
Standard/s Used & Current Version	Beef & Sheep Standard (2008-9)
Bodies Undertaking Approval	PAI to EN45011/ISO Guide 65
Scope of Scheme	Beef and Lamb
Scheme Description	

The Genesis QA scheme comprises a range of standards that cover best practice methods of production, animal welfare, traceability, legislation, food safety and environmental issues. Genesis QA launched in 1999 and now provides the assurance scheme to 4000 farmers in the UK. The standards in the suite comprise a <u>full</u> farmq module for common requirements for farms supplemented by species or discipline related additional criteria.

The Beef and Lamb Standard covers Health & Safety, Resourcing, Planning, Records (Medicines, Feed), Storage, Medicines, Animal Feed, Machinery, Livestock Management, Transportation of Livestock, Environmental Concerns, Safe Storage of Fertiliser, Identification & Traceability, Farm Animal Management, Environment and Hygiene Management, Feed Composition, Storage and Use, Housing & Handling, Medicines and Veterinary Treatment.

The scheme is stated to have been granted \pm quivalenceqto AFS and those meeting satisfactory standards are permitted to use the \Re ed Tractorqlogo.

Scheme Name	Genesis QA
Standard/s Used & Current Version	Pig Standard (2008-9)
Bodies Undertaking Approval	PAI to EN45011/ISO Guide 65
Scope of Scheme	Pigs
Scheme Description	

The Genesis QA scheme comprises a range of standards that cover best practice methods of production, animal welfare, traceability, legislation, food safety and environmental issues. Genesis QA launched in 1999 and now provides the assurance scheme to 4000 farmers in the UK. The standards in the suite comprise a <u>full</u> farmq module for common requirements for farms supplemented by species or discipline related additional criteria.

The Pig Standard covers Health & Safety, Resourcing, Planning, Records (Medicines, Feed), Storage, Medicines, Animal Feed, Machinery, Livestock Management, Transportation of Livestock, Environmental Concerns, Safe Storage of Fertiliser, General Management Requirements, Internal Structure & Fittings, Feed & Water Delivery, Automatic Equipment, Lighting, Pollution Prevention, Health and Veterinary Treatment, Movement & Transport, Animal Welfare Requirements, Outdoor Production.

The scheme is stated to have been granted <u>equivalenceqto</u> AFS and those meeting satisfactory standards are permitted to use the **Red** Tractorqlogo

Scheme Name	Genesis QA
Standard/s Used & Current Version	Arable & Sugar Beet Standard (2008-9)
Bodies Undertaking Approval	PAI to EN45011/ISO Guide 65
Scope of Scheme	Arable & Sugar Beet
Scheme Description	

The Genesis QA scheme comprises a range of standards that cover best practice methods of production, animal welfare, traceability, legislation, food safety and environmental issues. Genesis QA launched in 1999 and now provides the assurance scheme to 4000 farmers in the UK. The standards in the suite comprise a <u>full</u> farmq module for common requirements for farms supplemented by species or discipline related additional criteria.

The Arable and Sugar Beet Standard covers Health & Safety, Resourcing, Planning, Records (Medicines, Feed), Storage, Medicines, Animal Feed, Machinery, Livestock Management, Transportation of Livestock, Environmental Concerns, Safe Storage of Fertiliser, Plant Protection, Fertiliser & Nutrients, Field Records, Crop Storage & Handling of Combinable Crops, Seed and Seed Treatment, GM Crops/Materials, Contractors, Transport of Crops, Contamination Prevention & Sustainability.

The scheme is stated to have been granted \pm quivalenceqto AFS and those meeting satisfactory standards are permitted to use the \Re ed Tractorqlogo.

Scheme Name	Assured Food Standards
Standard/s Used & Current Version	Various Species Specific (2010)
Bodies Undertaking Approval	SAI-Global, PAI, NIFCC, NSF-CMi, SFQC to EN45011/ISO Guide 65
Scope of Scheme	Agriculture
Scheme Description	

Assured Food Standards (AFS) is an independent organisation set up to manage, develop and promote the Red Tractor as a mark of safe, quality, food.

The ownership of AFS is shared by organisations such as the National Farmers' Union (England and Wales), the Ulster Farmers' Union, the Agriculture and Horticulture Development Board, Dairy UK and the British Retail Consortium. The Food and Drink Federation also provides input.

The standards generally cover Traceability & Integrity, Staff & Contractors, Vermin Control, Environmental Protection and Contamination Control, Documents and Procedures, Animal Health & Welfare, Animal Medicines & Biosecurity, Feed & Water, Housing, Shelter and Handling Faculties, Casualty & Fallen Stock, Livestock Transport and other topics specific to the agricultural sector covered in the standard.

The standards were not reviewed.

Scheme Name	Scottish Quality Farm Assurance Scheme
Standard/s Used & Current Version	Farm Assurance Scheme Standard (Sept 2010)
Bodies Undertaking Approval	SFQC against EN45011/ISO Guide 65
Scope of Scheme	Combinable Crops
Scheme Description	

The purpose of the Scheme is to ensure that consumers and the trade have confidence that crops are grown on farms with a high standard of management, especially of farm operations which might affect the wholesomeness or safety of the food produced or the health of the environment and countryside.

The document is comprehensive and covers standards for the use of fertilizers and manures, crop protection practices, production & harvesting combinable crops and storage & handling. The standard focuses on hygienic production through a SQC Generic HACCP Plan which, although the references made to legislation are out of date, covers the production of a safe product.

Scheme Name	Farm Assured Welsh Livestock
Standard/s Used & Current Version	FAWL Producers Manual (September 2008)
Bodies Undertaking Approval	QWFC Ltd to EN45011/ISO Guide 65
Scope of Scheme	Livestock Production
Scheme Description	

The FAWL scheme was developed by a co-operative, the Welsh Lamb and Beef Producers to provide assurance to consumers in the safety and provenance of the products bearing the FAWL logo. The standard covers animal welfare, animal husbandry, hygiene, environmental controls and includes compliance with legislation. The standard includes a number of appendices providing guidance and proformas to support producers in meeting the requirements of the standard.

The scheme is recognised by Assured Food Standards and products are permitted to carry the Red Tractor logo.

Scheme Name	Northern Ireland Beef and Lamb Farm Quality Assurance Scheme	
Standard/s Used & Current Version	The Product Standard for the NIBLFQAS (April 2010)	
Bodies Undertaking Approval	Northern Ireland Food Chain Certification to EN45011/ISO Guide 65	
Scope of Scheme	Beef and Lamb Production	
Scheme Description		
The NIBLFQAS is owned by the Northern Ireland Beef and Sheep Industries but managed		

The NIBLFQAS is owned by the Northern Ireland Beef and Sheep Industries but managed by the Livestock and Meat Commission for Northern Ireland. The standard is comprehensive covering animal welfare, animal husbandry, hygiene, environmental controls and includes compliance with legislation. The standard also includes guidance and help for producers seeking to attain certification.

The scheme is recognised by Assured Food Standards and products are permitted to carry the Red Tractor logo.

8.2.2 Feed and fertiliser

Scheme Name	Biofertiliser Certification Scheme
Standard/s Used & Current Version	PAS110:2010
Bodies Undertaking Approval	OF&G, SFQC
Scope of Scheme	Biofertilisers
Scheme Description	

In England, Wales and Northern Ireland the certification criteria are the PAS110:2010, the Quality Protocol (ADQP) and the BCS Scheme Rules. PAS110:2010 has been written to detail the requirements for whole digestate, separated liquor and separated fibre derived from the anaerobic digestion of source-segregated biodegradable materials.

The standard covers quality management system elements and adopts HACCP as a means of identifying the human, animal and plant hazards associated with the process and determining control measures and Critical Control Points and the requirements for their day to day management. Requirements also cover segregation, storage and heat treatment requirements.

Whilst the standard is comprehensive and well written and there is clearly a link between biofertiliser products and public health, the PAS 110 standard does not specifically relate to hygiene requirements.

Certification is carried out by two certification bodies, both of whom are accredited by UKAS against EN45011/ISO Guide 65 for other certification schemes but are not apparently accredited for this scheme although this is being sought.

Scheme Name	Best Aquaculture Practices (BAP)
Standard/s Used & Current	Feed Mill Standard (June 2010)
Version	
Bodies Undertaking Approval	Aquaculture Certification Council stated as operating to
	ISO Guide 65/EN45011
Scope of Scheme	Feed Mills for Seafood & Fish Farming
Scheme Description	

The standards and associated schemes are owned by the Global Aquaculture Alliance based in Missouri, USA. The standards cover fish and shrimp hatching and farming, feed mill and seafood processing.

The Feed Mill standard covers regulatory compliance, ethical requirements for workers and community relations, pollution control, the application of HACCP principles and some elements of quality management. It does not specifically refer to all requirements stipulated in EC183/2005 and the Feedingstuffs (England) Regulations 2005 although it does require regulatory compliance. Only one facility (in Thailand) has been certificated against this standard.

Scheme Name	Fertiliser Industry Assurance Scheme (FIAS)
Standard/s Used & Current	FIAS Standards . Transport, Storage, Manufacturing &
Version	Packing and Merchant v2 (June 2009)
Bodies Undertaking Approval	PAI to EN45011/ISO Guide 65
Scope of Scheme	Fertiliser Sector

Scheme Description

The FIAS scheme is one of four schemes offered as part of a Trade Assurance Schemes initiative by the Agriculture Industries Confederation (AIC), formerly UKASTA. These schemes have been in operation since the mid 1990s and aim to provide a level of assurance to customers that the certificated organisation meets legal, industry and customer requirements. The AIC works with Defra and the FSA in developing the standards.

The four schemes available are FIAS (Fertiliser Industry Assurance Scheme), TASCC (Trade Assurance Scheme for Combinable Crops), FEMAS (Feed Materials Assurance Scheme) and UFAS (Universal Feed Assurance Scheme).

The FIAS standard was launched in January 2006 comprises 5 parts, the Scheme Manual and four standards/guidelines . Transport, Storage, Manufacturing & Packing and Merchant. All are similar with irrelevant sections omitted. The standard concerns itself primarily with quality management systems and expected standards of operation with particular focus on material controls identified through a risk assessment approach. The standard also addresses security/anti-terrorism concerns.

Scheme Name	Feed Materials Assurance Scheme (FEMAS)
Standard/s Used & Current	FEMAS International Core Standard FM01 (July 2009)
Version	
Bodies Undertaking Approval	PAI operating to EN45011/ISO Guide 65
Scope of Scheme	Production of Animal Feed
Scheme Description	

The FEMAS scheme is one of four schemes offered as part of a Trade Assurance Schemes initiative by the Agriculture Industries Confederation (AIC), formerly UKASTA. These schemes have been in operation since the mid 1990s and aim to provide a level of assurance to customers that the certificated organisation meets legal, industry and customer requirements. The AIC works with Defra and the FSA in developing the standards.

The four schemes available are FIAS (Fertiliser Industry Assurance Scheme), TASCC (Trade Assurance Scheme for Combinable Crops), FEMAS (Feed Materials Assurance Scheme) and UFAS (Universal Feed Assurance Scheme).

The FEMAS standard has been designed to cover the assurance requirements for all feed ingredients used in the production of animal feed, both primary products of a production system and by-products, regardless of their country of origin. This standard is intended for use with all feed ingredients, including micro- ingredients such as flavours, vitamins and enzymes. The standard has been developed to provide assurance to purchasers of feed ingredients that the feed ingredients they buy are safe and will meet the quality criteria specified, specifically the protection of health of the animals that consume the products and the ultimate human consumers of livestock products, including meat, milk, eggs and fish. Additional modules cover Non-GM animal feed (August 2009), Control of Naturally Occurring Prohibited Substances in Horse Feed (NOPS) (June 2010), Intermediate

Suppliers (July 2009) and UK Country Notes (July 2009). The review covered the core standard only which was found to be comprehensive, covering all legislative requirements and the requirements of a quality and food safety management system.

Scheme Name	Trade Assurance Scheme for Combinable Crops (TASCC)
Standard/s Used & Current	Codes of Practice for Combinable Crops and Animal
Version	Feeds (July 2010)
Bodies Undertaking Approval	PAI to EN45011/ISO Guide 65
Scope of Scheme	Combinable Crops and Animal Feeds
Scheme Description	

The FIAS scheme is one of four schemes offered as part of a Trade Assurance Schemes initiative by the Agriculture Industries Confederation (AIC), formerly UKASTA. These schemes have been in operation since the mid 1990s and aim to provide a level of assurance to customers that the certificated organisation meets legal, industry and customer requirements. The AIC works with Defra and the FSA in developing the standards.

The four schemes available are FIAS (Fertiliser Industry Assurance Scheme), TASCC (Trade Assurance Scheme for Combinable Crops), FEMAS (Feed Materials Assurance Scheme) and UFAS (Universal Feed Assurance Scheme).

The TASCC standards aim to combine food/feed safety legal requirements with recognised industry good practice and specific customer requirements to provide confidence in the food/feed chain. The standard comprises the scheme manual and four codes of practice covering haulage, storage, merchant activities and test facility requirements. The review covered haulage, storage and merchant activities. Each code of practice covers the part of the industry indicated but together, the haulage, storage and merchant codes of practice cover legislative requirements and additional <u>a</u>uality management systemgrequirements, some legislative elements being implicit within the standard.

Scheme Name	Universal Feed Assurance Scheme (UFAS)
Standard/s Used & Current Version	UFAS Code of Practice (September 2009)
Bodies Undertaking Approval	SAI-Global operating to EN45011/ISO Guide 65
Scope of Scheme	All feeding stuffs manufactured, including equine feeding stuffs, complementary feeding stuffs and premixtures.
Calcona Decerintian	

Scheme Description

The UFAS scheme is one of four schemes offered as part of a Trade Assurance Schemes initiative by the Agriculture Industries Confederation (AIC), formerly UKASTA. These schemes have been in operation since the mid 1990s and aim to provide a level of assurance to customers that the certificated organisation meets legal, industry and customer requirements. The AIC works with Defra and the FSA in developing the standards.

The four schemes available are FIAS (Fertiliser Industry Assurance Scheme), TASCC (Trade Assurance Scheme for Combinable Crops), FEMAS (Feed Materials Assurance Scheme) and UFAS (Universal Feed Assurance Scheme).

The UFAS scheme was introduced in 1998 and comprises two modules, one for Compound Feed and one for Merchants plus additional supporting notes on NOPS and quantity control.

The review covered the compound feed module only which was found to be comprehensive in the coverage of legislative requirements (EC183/2005 and the Feedingstuffs (England) Regulations 2005) and additionally requires quality and food safety management systems to be in place.

Scheme Name	Gafta Trade Assurance Scheme (GTAS)
Standard/s Used & Current	Comprises a scheme overview and seven manuals.
Version	Transport (v4 Oct 2010), Analysis & Testing (v3 Sept 2009),
	Inspection (v4 Oct 2010), Brokerage (v4 Oct 2010), Trading
	(v4 Oct 2010), Fumigation (v4 Oct 2010), Storage (v4 Oct
	2010),
Bodies Undertaking	NSF-CMi operating to EN45011/ISO Guide 65
Approval	
Scope of Scheme	International grain and feed trades
Scheme Description	

The Gafta Trade Assurance Scheme (GTAS) is a HACCP based scheme for all companies operating in the international grain and feed trades and was introduced in 2006. It covers each stage in the trading and logistics supply chain from farm in the country of origin to delivery to the final end-user in the country of destination. GTAS provides in one complete trading and logistics scheme the best professional practices designed to maintain consumer confidence concerning the handling and delivery of safe food and feed through requirements in the seven manuals detailed above. All legislative requirements are covered between the standard manuals and additionally there are requirements laid down for some elements of a quality management system.

Scheme Name	GMP+ Feed Safety Assurance Scheme
Standard/s Used & Current Version	Various, majority of which updated 01.01.2011
Bodies Undertaking Approval	Certification bodies are selected against specified criteria and æpprovedqfor certification work by the scheme owners. Accreditation to EN45011 is a pre-requisite to approval.
Scope of Scheme	Animal Feed including production, storage and transportation
Scheme Description	

This internationally applied scheme is owned by GMP+ International, an independent organization that took over running the scheme in 2010 from the Product Board for Animal Feed in the Netherlands. The scheme seeks to assure feed safety throughout the feed chain.

The scheme includes a series of standards covering different aspects of animal feed supply, including pet food. The standards are supplemented by various appendices and reference documents, all of which are readily available on the scheme website. The standards cover production, trade and service, quality control, production of feed ingredients, storage and transport requirements relating to different forms of transport,

cultivation of feed materials, laboratory testing and pet foods. Appendices cover specific topics in more detail, including purchasing.

A Feed Safety Database is included in the support facilities provided to scheme users and includes <u>fact</u> sheetsqcovering different hazards and considerations in respect of their management.

In terms of materials supplied to the feed industry, the scheme recognizes other certification schemes including TASCC, UFAS and FEMAS.

Within the standards, there is a requirement for certified organizations to report issues to competent authorities.

The standards are very comprehensive covering quality management systems in addition to the application of HACCP for the management of feed safety and standards for good practices. The standards exceed legislative requirements and are more prescriptive.

Scheme Name	Assured Land Based Contractor
Standard/s Used & Current	Generic (v2 Oct 2007)) + Verified Seed (Oct 2007) or
Version	Mobile Feed Mixing & Processing (v2 August 2007) or
	Agricultural Operations (May 2010)
Bodies Undertaking Approval	NSF-CMi
Scope of Scheme	Agricultural land-based contractors
Scheme Description	

This UK based scheme seeks to set standards for professional contract operations within the agricultural sector. The scheme centres on a generic standard covering health & safety, professional dealings with clients and clear definition of responsibilities and a specific standard covering the precise requirements for contractor operations. The website states that the intent is for the scheme to meet the requirements of ISO45011 and certification is offered by NSF-CMi.

The standards are not specifically food focused but centre on handling pesticides, feed additives and veterinary medicines, environmental protection and health and safety although protection of foodstuffs is implicit through the requirements within the standards.

Scheme Name	British Lion Quality Eggs
Standard/s Used & Current Version	Code of Practice for Lion Eggs V6 - January 2009
Bodies Undertaking Approval	To EN45011/ISO Guide 65
Scope of Scheme	The production and supply of shell eggs
Scheme Description	

8.2.3 Primary production

The Lion Egg scheme was introduced with the objective of eliminating Salmonella from UK eggs. The standard also seeks to set the highest standards of product safety and quality in addition to setting standards that exceed the legislative requirements for animal welfare. The scheme links to the AICos UFAS scheme requiring producers to use feed produced by UFAS certificated feed producers.

The standard is divided into sections covering requirements for breeder rearing flocks, breeder laying bird flocks, hatcheries, pullet rearing farms, laying bird farms and packing centres whilst laying down additional requirements for feed mills and retailer/caterers and

consumers.

The standard meets all relevant legislation and comprehensively covers requirements for all operations involved in egg production/packing.

The standard provides extensive details for the testing and sampling required for monitoring for Salmonella presence and the actions to be taken in the event of Salmonella being identified.

Scheme Name	Assured UK Malt
Standard/s Used & Current	Assured UK Malt Standard v 3.4 (Jan 2008)
Version	
Bodies Undertaking Approval	PAI
Scope of Scheme	Malt Production
Scheme Description	

Assured UK Malt (AUKM) is a scheme operated by the Maltsters Association of Great Britain (MAGB). It brings together various aspects of new and existing codes of practice making up a set of standards that are unique in the world of malting. For brewers and distillers purchasing malt bearing the AUKM mark of certification, the scheme seeks to offer reassurance about traceability and quality.

Suppliers are audited by Product Authentication International, who have been accredited by the United Kingdom Accreditation Service (UKAS) as the scheme's recognised Certification Body.

The standard is focused on food safety and quality management systems and specific requirements relating to malt production. Some legal requirements are implicit such as sufficient lighting and facilities for cleaning & disinfecting.

Scheme Name	Best Aquaculture Practices (BAP)
Standard/s Used & Current	Pangasius, Channel Catfish, Shrimp, Shrimp Hatchery
Version	and Tilapia Farm (September 2009)
Bodies Undertaking Approval	Aquaculture Certification Council stated as to ISO Guide 65/EN45011
Scope of Scheme	Fish/Crustacea farming . specific species
Scheme Description	

The standards and associated schemes are owned by the Global Aquaculture Alliance based in Missouri, USA. The standards cover fish and shrimp hatching and farming, feed mill and seafood processing.

The farming related standards have a broad scope covering property rights, regulatory compliance, worker rights and welfare, local community relations, conservation and biodiversity, pollution and effluent control, animal health and welfare, traceability. The standards are written in the broadest terms and do not specifically cover the requirements of UK legislation although the BAP standards are stated to achieved benchmarking against the GFSI standard in June 2010 but it would appear likely that this is limited to the Seafood Processing Standard. The ACC are represented on the GFSI Technical Committee. Certificated premises are primarily those in S.E Asia.

Scheme Name	Best Aquaculture Practices (BAP)
Standard/s Used & Current Version	Seafood Processing Standard v2.1 (Oct 2009)
Bodies Undertaking Approval	Aquaculture Certification Council stated as operating to ISO Guide 65/EN45011
Scope of Scheme	Seafood Processing
Scheme Description	-

The standards and associated schemes are owned by the Global Aquaculture Alliance based in Missouri, USA. The standards cover fish and shrimp hatching and farming, feed mill and seafood processing.

The Seafood Processing Standard . Food Safety Component is a comprehensive standard that is benchmarked against the GFSI requirements. The standard covers all UK legislative requirements in EC852/2005 but does not specifically address some of the requirements in EC853/2005 but refers in general terms to e.g. storage at temperatures identified through the application of HACCP principles rather than specifically to those specified in the regulations.

Certificated seafood processing plants are in the USA, South America and SE Asia, including the Indian sub-continent.

Scheme Name	GlobalG.A.P.
Standard/s Used & Current Version	Integrated Farm Assurance v3 (March 2008)
Bodies Undertaking Approval	100+ worldwide against EN45011/ISO Guide 65. Several UK CBs offer parts of the scheme
Scope of Scheme	Primary Production
Scheme Description	

GlobalG.A.P. standards (formally EUREPGAP) cover all forms of primary production. There are a number of standards within the scheme, the broadest of which is the Integrated Farm Assurance standard

Integrated Farm Assurance (IFA) is a single integrated standard with modular applications for different product groups, ranging from plant and livestock production to plant propagation materials and compound feed manufacturing

This document sets out a framework for Good Agricultural Practices (G.A.P.) on farms and defines essential elements for the development of best-practice for the global production of crops, livestock, and aquaculture acceptable to the leading retail groups worldwide.

The standards defined are very comprehensive covering quality management systems in addition to the application of HACCP for the management of food safety. The standards exceed legislative requirements in some respects and it is acknowledged that legislation over-rides the requirements of the standard.

Scheme Name	Scottish Quality Wild Venison
Standard/s Used & Current	Primary Processor Standards for Scottish Quality Wild
Version	Venison Assurance Scheme v6 (April 2009)
Bodies Undertaking Approval	SFQC working in accordance with EN45011/ISO Guide
	65
Scope of Scheme	Primary processing of Wild Venison
Scheme Description	

The standards document describes the standards and practices that must be met and maintained for the primary processing of venison in order to fulfil the requirements of the Certification Scheme for Scottish Quality Wild Venison (SQWV). The standard clearly states that members are expected to comply with all relevant legislation. Whilst many of the legislative requirements are detailed in the standard, some are not explicit within the text e.g. requirements for toilets and washbasins/changing facilities. Temperature requirements are laid down and temperature control is therefore implied. Some elements of quality management systems are also a requirement of the standard but not as comprehensively specified as some of the other standards e.g calibration is not specified although temperature monitoring would be expected to be undertaken with an accurate instrument.

Scheme Name	English Beef & Lamb Executive (EBLEX) Quality Standard Mark
Standard/s Used & Current Version	Used in conjunction with other assurance schemes to provide consumers with assurance for the full supply chain, primarily marketing driven
Bodies Undertaking Approval	PAI
Scope of Scheme	Beef and lamb supply chain from primary production to consumer
Scheme Description	
departmental public body, along HGCA (cereals and oilseeds see Great Britain), HDC for the horti assurance schemes for specific ensure assurance throughout th	and Horticulture Development Board (AHDB) a non- with five other levy organizations, BPEX (pig industry), ctor in the UK), Dairyco (dairy industry), PCL potatoes in cultural sector. The scheme appears to rely on other elements of the supply chain and examines the links to e chain before allowing the use of the QMS. See below for es to which businesses should have been assured before ain for the EBLEX Quality Mark.
Beef & Lamb	
Farm Assurance/ Assured Auction Mart	Assured British Meat Standards through FABBL Beef & Lamb or ACCS Beef & Lamb ABM Auction Mark Standard QMS Marketing Standard Farm Assured Welsh Livestock (FAWL) Northern Ireland Farm Quality Assurance Scheme (NIFQAS) Specially Selected Scottish Farm Assured (SSSFA) (The QMS Farm Assurance Cattle and Sheep Standard Genesis QA (Whole Farm)(Beef and Sheep) Module Soil Assurance farm Assurance Module for Beef & Lamb.

ABM Transport Standard
QMS Transport Standard
ABM Abattoir, Cutting and Packing Plant Standard (Core
+ Module A)
Global Food Standard (BRC) + (ABM Module A)
International Food Standard (IFS) + (ABM Module A)
Quality Meat Scotland Processor Standard
ABM Abattoir, Cutting and Packing Plant Standard (Core
+ Module B)
Global Food Standard (BRC) + (ABM Module B)
Quality Meat Scotland Processor Standard
International Food Standard (IFS) + (ABM Module B)
ABM/NACB Catering Butchers Standard
ABM Abattoir, Cutting and Packing Plant Standard (Core
+ Module B)
Global Food Standard (BRC) + (ABM Module B)
Quality Meat Scotland Processor Standard
International Food Standard (IFS) + (ABM Module B)
ABM/NACB Catering Butchers Standard
Storage and Distribution Standard (BRC)
CMI Standard for Storage, Wholesale and Distribution
SAI Global (EFSIS) Storage and Distribution Standard

8.2.4 Organic

0.2.4 Organic	
Scheme Name	Linking Environment & Farming (LEAF)
Standard/s Used & Current	LEAF Marque Global Standard v9 (October 2010)
Version	
Bodies Undertaking Approval	Total 18. UK based CBs are NSF-CMi, National
	Britannia, PAI, SFQC and SAI-Global . to EN45011/ISO
	Guide 65
Scope of Scheme	Primary Production
Scheme Description	
The LEAF Margue scheme is supplementary and complementary to other primary	

The LEAF Marque scheme is supplementary and complementary to other primary production assurance schemes and is primarily about environmental concerns and crop/animal health. The standard covers sections on Environment & Local Community, Crop Health & Protection, Soil Management & Fertilisation, Pollution Control, Energy Efficiency & Water Management, Landscape & Nature Conservation, and Animal Husbandry.

The scheme does not specifically cover areas relating to food safety although this is implicit in the standard.

Scheme Name	Welsh Organic Scheme
Standard/s Used & Current Version	Organic standards for beef, dairy, pigs, poultry and lamb v 2.1 (June 2006)
Bodies Undertaking Approval	Quality Welsh Food Certification Ltd against EN45011/ISO Guide 65
Scope of Scheme	Organic products
Scheme Description	

The Welsh Organic Scheme has been set up to enable Welsh farmers, growers and processors to achieve organic certification status by conforming to operating standards approved by Defra. Quality Welsh Food Certification Ltd (QWFC), a company operating to standards recognised throughout Europe, European Standard EN45011, will monitor the Welsh Organic Scheme. QWFC will issue certificates of conformance to those producers or processors that comply with the standards.

The standards appear comprehensive and whilst primarily covering the requirements for organic products, there is overlap with other areas of relevance to the producer such as animal health & welfare. The standards do not specifically focus on hygiene requirements although all legislative requirements are expected to be met.

Scheme Name	Organic Farmers & Growers Certification
Standard/s Used & Current Version	OFG Control Manual . sections updated separately and last dated as updated in 2005/2006
Bodies Undertaking Approval	OF&G working in partnership with SAI-Global against the requirements of EN45011/ISO Guide 65
Scope of Scheme	Organic Products
Scheme Description	

OF&G offers three certification programmes:

i) The OF&G/Defra Certification Programme:

This programme is based on the Defra Compendium of UK Organic Standards that is based on EC Regulation 2092/91. The scheme is designed for areas of the standard to be expanded to ensure compatibility with Farm Assurance Schemes and to include best processing practices.

ii) Partnership Programme:

This programme applies to operators who supply products and ingredients to a producer or processor certified under the SA Certification Ltd Symbol

Scheme.

iii) United States Department of Agriculture National Organic Program

(USDA-NOP):

This programme applies to those operators who supply products and ingredients which are to be exported to the United States of America.

The standards required are detailed in a £ontrol Manualqsupported by a series of Technical Leaflets that provide further guidance on key topics. The Control Manual is very comprehensive covering all aspects of operations including, where relevant, husbandry management, animal health and welfare, handling & transport, disease prevention & veterinary treatment and feed plus requirements for processing operations. The organic requirements do not over-ride legislative requirements and are supplementary. Whilst the standards are primarily the requirements for organic products, there is overlap with other areas of relevance to a producer/supplier but there is very detailed reference to legislation throughout the documents but this does not make more than passing reference to hygiene related legislation and the focus for the standards is in relation to organic foods.

8.2.5 Storage and distribution

Scheme Name	Livestock Transport Assurance Scheme
Standard/s Used & Current	ABM/ABP Livestock Transport Standard v2.3 (December
Version	2010)
Bodies Undertaking Approval	NSF-CMi, SAI Global, NIFCC to EN45011/ISO Guide 65
Scope of Scheme	Transport of Cattle, Sheep & Pigs
Scheme Description	

The ABM/ABP Livestock Transport covers the transport of cattle, sheep and pigs. This Standard complements and completes the Red Tractor assurance chain through farms, markets and abattoirs. The requirements of the ABM/ABP Standards is that all hauliers must:

- Comply with all current legislation
- Possess and be aware of all relevant Codes of Practice
- Ensure the health and welfare of the stock based on The Five Freedoms :
 - o freedom from thirst, hunger and malnutrition;
 - freedom from discomfort;
 - freedom from pain, injury or disease ;
 - o freedom from fear and distress;
 - o freedom to display most normal patterns of behaviour.
- Ensure that full traceability systems are in place
- Ensure the safety and welfare of animals during transport
- Ensure the environment is protected and cared for
- Ensure that all relevant drivers have an understanding and access to a copy of the standards.

The standard does not, therefore, map directly onto hygiene legislation but refers to all relevant legislative requirements.

Scheme Name	NSF-CMi 'Due Diligence' Scheme
Standard/s Used & Current Version	NSF-CMi Due Diligence Standard . Storage, Wholesale & Distribution v3 (Sept 2008)
Bodies Undertaking Approval	NSF-CMi
Scope of Scheme	Generic
Scheme Description	

The NSF-CMi Due Diligence Standard for Storage, Wholesale and Distribution has been developed to provide a practical audit of the ability of small to medium sized food companies to provide a safe and legal environment and operation in order to fulfill basic requirements of due diligence. Achievement of the standard will give confidence to purchasers in the ability of the company and form an essential component of their due diligence requirements. It is a demonstrable way of selling safe and legal products. The standard is comprehensive covering all legal requirements relating to storage, wholesale and distribution operations and many quality management system elements.

8.2.6	Processing	(product specific)
0.2.0	FIUCESSING	(product specific)

Scheme Name	British Meat Processors Association Charter and Quality Schemes
Standard/s Used & Current Version	Modules covering standards for products and processing for:
	Charter Quality British Bacon (01.07.10)
	British Quality Assured Pork Sausage (01.02.11)
	Charter Quality British Ham (01.07.10)
	British Quality Assured Pork (01.07.10)
	Animal Welfare & Slaughter (01.07.10)
Bodies Undertaking Approval	SAI Global for Pork, Welfare, Bacon & Ham Standards to EN45011
Scope of Scheme	Food Safety and Quality through BRC certification plus Processing and Product Standards for Specified Products
Scheme Description	

The scheme is owned and managed by the BMPA. The standards have been written to supplement the BMPA ±oreqstandard, defined as the BRC Global Food Standard. The standards specify the processes that may be used in conjunction with specific descriptors e.g. ±Wiltshire Cured Hamq define requirements for all elements of the process e.g. curing, cooking, cooling etc and detail the expected standards for products e.g. microbiological. The schemes are assessed by the BMPA service provider (SAI Global) and are covered by EN45011 accreditation.

Standards are intended to be applied incrementally e.g. for Charter Mark Bacon, the modules for British Pork and Animal Welfare also apply. Businesses are expected to be registered with Assured Farm Standards. If successfully certificated, businesses may use the \pounds harterqor \pounds Aqmark.

It is accepted that the BRC element may be certificated by other accredited certification bodies and there are requirements for open channels of communication between these and the BMPA. Certification is based on 2 surveillance visits per year, one of which is unannounced. One of the visits covers BRC requirements.

Scheme Name	British Sandwich Association (BSA)	
Standard/s Used & Current	Codes of Practice for Sandwich Manufacturing (August	
Version	2007), Sandwich Bars (No date), Retail (May 2001) and	
	Transport & Distribution (July 2009)	
Bodies Undertaking Approval	BSA Technical Personnel	
Scope of Scheme	Sandwich making, transport and retailing	
Scheme Description		
The scheme is available to members of the British Sandwich Association at a specific level of membership. The Codes of Practice are comprehensive and cover legislative requirements and, in addition, many of the elements of good practice as they relate to sandwich manufacture and some of the elements of a quality management system. Some of the standards e.g. Retailing only includes pertinent elements.		

The standards are slightly out of date in terms of references to legislation and industry standards (despite being updated more recently than the changes to legislation) but the content was in compliance with regulatory requirements.

0.2.7 Generic schemes	
Scheme Name	Safe & Local Supplier Approval (SALSA)
Standard/s Used &	SALSA & SALSA SCA v2 (January 2010)
Current Version	
Bodies Undertaking	SALSA using auditors on the IFST Auditor and Mentor
Approval	Register
Scope of Scheme	Small food manufacturing businesses/cheesemakers
Scheme Description	

8.2.7 Generic schemes

The SALSA, or Safe and Local Supplier Approval, scheme was developed to help local and regional food and drink producers improve their businesses and supply their products to national and regional buyers who have introduced their own local sourcing initiatives. It is based upon an audit standard, the fundamentals of which are product safety, legality and quality and the provision of demonstrable legal defence for the buyer (the due diligence defence).

The scheme, which is supported by Defra and the Food Standards Agency, is widely supported by many of the UK (spleading food buyers from the retail and foodservice sectors.

SALSA is a joint venture between four main trade associations representing the UK food chain: The British Retail Consortium (BRC) The British Hospitality Association (BHA) The Food and Drink Federation (FDF) The National Farmers Union (NFU).

The joint venture organisations govern the scheme and work in close partnership with other organisations that have specific expertise in the day to day operations to ensure scheme membersqinterests are met. The Institute of Food Science and Technology (IFST) administers and operates the SALSA scheme on behalf of the joint venture members, with support from Scottish Food Quality Certification (SFQC) in Scotland.

The standards are very similar, the SCA variant containing specific requirements for cheesemakers who, if specific standards are not met, may produce unsafe product. The two standards largely and specifically cover the legal requirements, although some elements of the legislation are implicit within the standard e.g. general reference to the need for adequate temperature control and the need for suitable standards for buildings used to product food. The standards also contain many of the elements of a quality management system.

The SALSA scheme was introduced in 2007 and has gained in popularity as an approval scheme each year since the launch.

Scheme Name	FSSC 22000
Standard/s Used & Current	ISO22000:2005, PAS220:2008
Version	
Bodies Undertaking Approval	See text below . to ISO17021
Scope of Scheme	Food Manufacturing
Scheme Description	

This scheme provides certification against ISO22000 (food safety management systems and application of HACCP) and PAS220 (a Publicly Available Specification (PAS) detailing the requirements for establishing, implementing and maintaining prerequisite programmes. PAS 220 is owned and copyright to BSi and was developed by a team from a number of global food manufacturing businesses. ISO22000:2005 is an international standard applicable to any part of the food chain to define the requirements for food safety management systems.

The scheme is owned by the Foundation for Food Safety Certification which was formed in 2004 and is based in The Netherlands. The certification scheme is recognised by the Global Food Safety Initiative and supported by CIAA The Confederation of Food & Drink Industries of the European Union. There are 35 provisional certification bodies identified to undertake certification with full accreditation to ISO17021 pending for some. Approximately 10 of these CBs are operational in the UK. Accredited certification is available from 01.01.2011.

The standard covers all UK legislative requirements in EC852/2005 but does not specifically address some of the requirements in EC853/2005 but refers in general terms to e.g. storage at temperatures identified through the application of HACCP principles rather than specifically to those specified in the regulations.

STS Certification Scheme (Small & Regional)
Code of Practice and Technical Standard for the Manufacture, Distribution and Supply of Food, Ingredients and Food Related products by Small or Regional Suppliers (2008)
STS
Generic

This Code of Practice outlines aspects of good manufacturing practice and where applicable legal requirements, which are standards required of small local and regional manufacturers and suppliers who supply, or intend to supply food, ingredients and food related items.

The standard is comprehensive and covers all legislative requirements and many quality management system elements.

Scheme Name	STS Certification Scheme (Public Sector)
Standard/s Used & Current	Code of Practice and Technical Standard for Food
Version	Processors and Suppliers to the Public Sector v3
	(September 2007)
Bodies Undertaking Approval	STS
Scope of Scheme	Generic

Scheme Description This document outlines aspects of good manufacturing practice, storage and distribution and where applicable legal requirements, which are standards required of food processors and suppliers that supply, or intend to supply food, ingredients and food related items to the Public Sector. The standards are benchmarked against the Global Food Standard Initiative. The objectives of the Code of Practice and Technical Standard are to enhance food safety, ensure consumer protection, strengthen consumer confidence and Improve cost effectiveness through the food supply chain. The Code of Practice and Technical Standard have been developed with the participation of technically competent personnel of interested parties and has been subject to formal review by the Independent Committee of STS. The standard is comprehensive and covers legislative requirements and quality management system requirements.

Scheme Name	Synergy 22000
Standard/s Used & Current	ISO22000:2005 & Synergy PRP 22000 (June 2009)
Version	
Bodies Undertaking Approval	Unclear . to ISO17021
Scope of Scheme	Generic
Scheme Description	

The Synergy 22000 certification scheme is owned by a Swiss company, Synergy Global Standardisation Services SA. The scheme is based on ISO22000:2005 and a Synergy owned document defining pre-requisite programmes that is based on ISO22002-1. The scheme has been successfully benchmarked against GFSI (2009) and the website indicates that the scheme is accredited by ANAB (in USA) but that they are not offering accredited certification currently.

The standards, when considered together, comprehensively cover the legislative requirements although, as a generic standard, specific elements of the legislation are implicit e.g. temperature controls. In addition, the food safety management systems elements are covered in detail.

Scheme Name	British Retail Consortium	
Standard/s Used & Current	BRC Global Food Standard v.5	
Version		
Bodies Undertaking Approval		
Scope of Scheme	Food Manufacturing . Generic and Retailer Branded	
	Primary Products	
Scheme Description		
The BRC Global Food Safety Standard was introduced in 1998 for food producers		
supplying the major UK retailers. Additional standards have been developed covering food		
packaging (with the IOP), consumer products and storage & distribution activities.		
Food businesses wishing to demonstrate BRC standard conformance require certification		
from one of many certification bodies operating quality systems to EN45011/ISO Guide 65.		
Certification is a pre-requisite for all but small and local suppliers to the major retailers and		

the scheme is actively used by many food businesses as providing a mark of assurance to customers, whether these are major retailer customers of others.

The standard is comprehensive, covering quality and food safety management systems in addition to legal requirements. Requirements are very prescriptive. The standard covers all UK legislative requirements in EC852/2005 but does not specifically address some of the requirements in EC853/2005 but refers in general terms to e.g. storage at temperatures identified through the application of HACCP principles rather than specifically to those specified in the regulations.

Scheme Name	NSF-CMi 'Due Diligence' Scheme	
Standard/s Used & Current	NSF-CMi Due Diligence Standard v4 (Sept 2008)	
Version		
Bodies Undertaking Approval	NSF-CMi	
Scope of Scheme	Generic	
Scheme Description		
The NSF-CMi Due Diligence Audit Standard has been developed to provide a practically		
orientated audit of small and medium size manufacturers. The Standard covers all aspects		
of the manufacturing operation and challenges at an operational level plus the ability of a		
manufacturer to meet the requirements for the consistent production of safe and legally		
compliant food, rather than the focus of BRC assessments upon overall quality		
management systems. The standard is comprehensive covering all legal requirements and		
many quality management system elements.		

Scheme Name	EFSIS Safe and Legal
Standard/s Used & Current Version	EFSIS Safe & Legal Standard
Bodies Undertaking Approval	EFSIS/SAI-Global
Scope of Scheme	Generic . small manufacturers
Scheme Description	

The EFSIS Safe & Legal Standard is designed specifically for small food manufacturers to provide an all-encompassing food safety audit, providing small volume manufacturers and producers with an all encompassing food safety audit, acting as a stepping stone to achieving the requirements of the full BRC Standard.

The audit considers good manufacturing practice and ensures that those involved in the food industry have ensured the safety and legality of their quality and hygiene systems and procedures.

Standard not reviewed.

Scheme Name	EFSIS Gold
Standard/s Used & Current Version	EFSIS Gold Standard
Bodies Undertaking Approval	EFSIS/SAI-Global using an external consultant
Scope of Scheme	Generic
Scheme Description	

EFSIS Gold is a detailed management challenge process providing customers with a focused and management tool linked to continuous improvement. It has been developed to add value to the food industry by challenging management in a way that no standard audit can do. It is a management performance assessment rather than an audit, and probes in to the heart of a company's processes and systems.

The standard is stated as providing a management challenge process, coverage of key food risk areas to provide the client with a focused and powerful management tool that is linked to continuous improvement. The standard covers hygiene operations, risk management, operations control, customer satisfaction and management, training and development.

Standard not reviewed.

o.z.o Catering	
Scheme Name	National Association of Catering Butchers (NACB)
Standard/s Used &	NACB v3 (June 2007)
Current Version	
Bodies Undertaking	SAI-Global to EN45011/ISO Guide 65
Approval	
Scope of Scheme	Catering Butchers
Scheme Description	

8.2.8 Catering

The NACB was set up in 1983 to raise the standards used in catering butchery. The NACB standard is described as complementing similar standards for the production, processing and distribution of meat and livestock. It seeks to ensure that all certified catering butchers operate to optimum levels of food safety and hygiene. NACB-certified catering butchers must have taken every step to ensure the legality, safety and quality of the meat and meat products that they supply to their customers.

The standard is comprehensive and requirements are graduated as £ntryqlevel, £ommendationqlevel and £ligherqlevel. Legal requirements (EC852/2004, EC853/2004 and The Food Hygiene (England) Regulations 2006) are within £ntryqlevel with additional requirements relating to quality management systems covered in the £ommendationqand ±ligherqlevels.

Scheme Name	Guild of Q Butchers					
Standard/s Used & Current	Steps to Quality Members Manual (2006/2009)					
Version						
Bodies Undertaking Approval	SAI-Global					
Scope of Scheme	Retail Butchers					
Scheme Description						
Prior to 2005, the scheme was u	undertaken using a certification body operating to EN45011					
but it was decided that the sche	me was not satisfactory and the current manual was					
	art covers quality standards required of members, covering					
display, marketing and customer facing requirements. The second part covers hygiene						
standards as a series of mandatory items (largely the legislative requirements) and some						
•	scribe the manner in which some aspects of hygiene are to					
be achieved. The scheme is full	y owned by Q Guild and seeks to provide members with a					

competitive edge through the manifestation of high standards in retail butchery.

Scheme Name	EFSIS Standard for Catering
Standard/s Used & Current Version	EFSIS Standard for Catering
Bodies Undertaking Approval	SAI-Global/EFSIS
Scope of Scheme	Catering Operations
Scheme Description	

The scheme comprises a comprehensive inspection of food handling and preparation, cooking procedures, hygiene standards and premises and is carried out to the accredited EFSIS Standard for Catering Establishments.

The standard is applicable to all types of catering establishments including kitchen operations, restaurants, beverage establishments, central production units handling / processing all food and beverage types: ready to eat, ready to cook/reheat fresh, frozen or ambient stable.

Standard not reviewed.

9 APPENDIX D: EVALUATION OF STANDARDS AND CRITERIA

9.1 Introduction

This appendix is limited to those standards that have not previously been assessed by the Agency. It maps the standards against the legislation and identifies which of the evaluation criteria are not fully satisfied.

The following standards were not mapped in detail against hygiene legislation. An initial review of the standards indicated that they did not align to food hygiene legislation and so they were not assessed in detail.

- Livestock Transport Assurance
 Scheme
- Linking Environment & Farming (LEAF)
- Assured Land Based Contractor
- Welsh Organic Scheme
- Organic Farmers & Growers Certification
- Biofertiliser Certification Scheme
- Freedom Foods . as it only covers welfare
- Soil Association- just organic status;
- The Guild of Conservation Grade Producers (not food safety and hygiene)
- Agriculture Industries Confederation
 Fertiliser Industry Assurance
 Scheme

- British Soft Drinks Association . Fruit Juice Quality Control Scheme (authenticity only);
- Cert ID . Non-GMO Standard (GMO only)
- Cert ID EU Regulatory Compliance Standard (GMO only)
- Livestock Driver Competency Scheme . not an assurance scheme;
- Game Shoot Standards Assurance Scheme (only shooting standards)
- Scottish Organic Producers
 Association (SOPA)
- Superior Quality Shetland Salmon (SQSS). just quality.

The Best Aquaculture Practice standards were not assessed in detail, except Feed Mills, as the products and environment were probably specific to the USA. As EBLEX and BMPA require accreditation against Assured Farm Standards and/or BRC Global Food Standards, they were not mapped against food hygiene regulations.

The EFSIS standards were not assessed in detail as they were being phased out.

The GlobalG.A.P. standards are designed for global application to a wide range of agricultural products. The standards comprise a series of modules, all of which are comprehensive. The requirements cover animal health, hygiene, animal welfare, traceability, environmental concerns, waste and worker health and safety. Many of the legislative requirements are addressed specifically within the standards and refer to the requirement for compliance with local legislation. The organisation responsible for GlobalG.A.P. is based in Germany and many of the standards are based on those developed within Europe and known as EUREPGAP standards. Some elements of the GlobalG.A.P. standards are GFSI benchmarked, as follows:

Livestock Base: 3.0-4_Mar10;

• Aquaculture - V1.02_March10.

- GlobalG.A.P IFA Scheme V3;
- General Regulations: V3.1_Nov09 (all scopes)
- Fruit and Vegetables: 3.0-2_Sep07;

Although a direct comparison with UK legislative requirements has not been undertaken, the standards are aligned with the requirements.

9.2 Mapping of standards against legislation

The standards were assessed against legislation and the result indicated as:

- Y = Yes . meaning the standard directly and explicitly addressed/aligned to the legislation;
- N = No meaning the standard did not directly or explicitly address or align to the legislation;
- I = Implicit . meaning the standard had high level requirements that would require the business to comply with the legislation but did not cite each specific legislative requirement;
- N/A . Not applicable, such as the standard did not cover animals.

A number of standards and certification schemes are applicable to meat processing. The alignment of these standards to the requirements of 853/2004 is covered in section 9.3.

Scheme	AIC- FEMAS	AIC - UFAS	AIC - TASCC	BAP Feed Mill	GTAS	GMP+
For Primary Production Feed						
Minimise contamination of feed	Y	Y	Y	Y	Y	Y
Cleanliness of equipment used	Y	Y	Y	Y	Y	Y
Use of clean water	Y	Y	Y	Ν	N	Y
Hygienic production, storage and handling	Y	Y	Y	Y	Y	Y
Elimination of animals and pests	Y	Y	Y	Y	Y	Y
Handling of waste and hazardous materials	Y	Y	Y	Y	Y	Y
Preventing contamination from packaging materials	Y	Y	Y	Y	Y	Y
Taking account of adverse results	Y	Y	Y	Ν	Salmonella	Y
Record Keeping (including GM)	Y	Y	Y	Y	Y	Y

Table 10: Mapping of animal feed standards against legislation

Scheme	AIC- FEMAS	AIC - UFAS	AIC - TASCC	BAP Feed Mill	GTAS	GMP+
Other Feed Production						
Clean facilities/adequately	Y	Y	Y	Y	Y	
protected from pests			X			Y
Layout, design and	Y	Y	Y	I	Y	Y
construction (cleaning) Mixing/manufacturing	Y	Y	Y	N	Y	T
equipment	I	I	I	IN	I	
checked/calibrated						Y
Sufficient Lighting	Y	Y	N	Ν		Ý
Sufficient drainage	Ý	Ý	Y	N	Ŷ	Ý
Suitable water	Ý	Ý	Ý	N	N	Ý
Waste suitably disposed	Ý	Y	Y	Y	Y	Y
Windows proofed/doors	Ý		Ý	N	Ŷ	-
close fitting			-		-	Y
Ceilings - prevent	Y	Y	N	Ν	Y	
accumulation						Y
Staff skilled/written	Y	Y	Y	Ν	Y	
responsibilities						Y
Operate to written	Y	Y	Y	Y	Y	
instructions						Y
Minimise cross-	Y	Y	Y	Y	Y	
contamination						Y
Minimise contamination from	Y	Y	Y	Y	Y	N
prohibited materials	V	V	V	V	N/	Y
Separation of	Y	Y	Y	Y	Y	V
waste/prohibited materials Traceability	Y	Y	Y	Y	Y	Y
QC Plan and access to a	Y	Y	Y	Y	Y	I
laboratory	I	I	I	I	I	Y
Document requirements and	Y	Y	Y	1	Y	-
record retention			1		•	Y
Processed feed separated	Y	Y	Y	Y	I	· ·
from unprocessed						Y
Stored and transported in	Y	Y	Y	Ι	Y	
suitable containers						Y
Product identification	Y	Y	Y	Y	Y	Y
Defined responsibilities	Y	Y	Y	Y	Y	Y
Cleaning programmes	Y	Y	Y	Y	Y	Y
Control of temperature -		I	Y	Y	Y	
prevent spoilage						Y
Complaints Handling	Y	Y	Y	Ν	Y	Y
Product Recall	Y	Y	Y	Y	Y	Y
Record keeping	Y	Y	Y	Y	Y	Y
Application of HACCP	Y	Y	Y	Y	Y	Y
Registration with competent authority	Y	Y	Y	I	Y	

Scheme	AIC- FEMAS	AIC - UFAS	AIC - TASCC	BAP Feed Mill	GTAS	GMP+
Additional elements contained in the standard						
Quality Management Systems	Y	N	Ι	Y	Y	Y
Management Commitment/Organisation	Y	Y	Y	Y	Y	Y
Supplier Assurance	Y	Y	Y	Y	Y	Y
Document Control	Y	Y		Ν	Ν	Y
Specifications & Procedures	Y	Y	Y	Y	Y	Y
Maintenance 'systems'	Y	Y	Y	Ν	Ν	Y
Control of foreign material	Y	Y	Y	Ν	Y	
Site security	Y	Y	Y	Ν	Ν	Y
Internal Audit	Y	Y	Y	Ν	Ν	Y
Review of Operations	Y	I	Y	Ν	Ν	Y
Consideration of allergens	Ν	Ν	Y	Ν	N	N

Table 11: Other newly assessed standards

Scheme	UK Assured Malt	BRC Global Food	NSF Cmi Due Diligence - Manufacturing	NSF Cmi Due Diligence Storage
EC852/2004				
Application of HACCP principles	Y*	Y	Y	Y
Registration with Local Authority	N	N	Y	N
Premises clean and in good repair	Y	Y	Y	Y
Good design, layout and construction	Y	Y	Y	Y
Toilets and Washbasins	I	Y	Y	Y
Sufficient ventilation (incl toilets)	Y	Y	Y	N
Sufficient lighting		Y	Y	Y
Adequate drainage & flow		Y	Y	N/A
Adequate changing facilities		Y	Y	Y
Adequate segregation		Y	Y	Y
Food room surfaces	Y	Y	Y	N/A
Facilities for cleaning & disinfection	I	Y	Y	Y
Facilities for washing food	N/A	I	I	N/A
Transport clean, good repair, segregation, temp cont	Y	Y	Y	Y
Equipment clean and good construction	Y	Y	Y	Y
Waste removal, closable containers, storage, disposal		Y	Y	Y
Water potable, separation,	Y	Y	Y	N/A

Scheme	UK	BRC	NSF Cmi Due	NSF Cmi
	Assured	Global	Diligence -	Due
	Malt	Food	Manufacturing	Diligence
				Storage
ice/steam/cooling water				
Personnel cleanliness,	Y	Y	Y	Y
carriers/report illness				
Foodstuffs not contaminated	Y	Y	Y	I
Foodstuffs storage	Y	Y	Y	Y
Foodstuffs protected from	Y	Y	Y	Y
contamination				
Pest control	Y	Y	Y	Y
Temperature control	Y	Y	Y	Y
Rapid chilling	N/A	I		N/A
Defrost controls	N/A	I		N/A
Control hazardous waste	Ι	Y	Y	Y
Suitable packaging	Y	Y	Y	N/A
Storage of packaging	N/A	Y	Y	N/A
Prevention of contamination	I	Y	Y	N/A
from packaging				
Adequacy of heat treatment	Y	I	Y	N/A
Trained/supervised food	Y	Y	Y	Y
handlers				
Adequate training in HACCP		Y	Y	Y
Trained for specific tasks	Y	Y	Y	Y
50/50/2022				
EC178/2002	Ň		N/	
Produce safe food	Y	Y	<u>Y</u>	Y
Responsibility of FBO	Y	Y	<u>Y</u>	Y
Traceability	Y	Y	Y	Y
Communication with Competent	N	N	Y	N
Authority				
Additional Requirements				
Covered				
Quality Management Systems	Y	Y	Y	Y
Management	Ý	Ý	Ŷ	Y
Commitment/Organisation		-		
Supplier Assurance	Y	Y	Y	Y
Document Control	Y	Y	Y	Y
Specifications, Procedures &	Y	Y	Y	Y
Records				
Recall & Incident Management	Y	Y	Y	Y
Complaint Handling	Y	Y	Y	Y
Maintenance 'systems'	Y	Y	Y	Y
Cleaning 'systems'	Y	Y	Y	Y
Wood, glass and metal controls	Y	Y	Y	Y
Allergen management	N/A	Y	Y	N
Quantity Control	N	Y	Y	N

Scheme	UK Assured Malt	BRC Global Food	NSF Cmi Due Diligence - Manufacturing	NSF Cmi Due Diligence Storage
Product Analysis/Laboratory use	Y	Y	Y	N/A
Calibration	Y	Y	Y	Y
Labelling/Identification		Y	Y	Y
Stock rotation	Ν		Y	Y
Rework	Ν	Y	Y	Y
Product Development	Ν	Y	Y	N/A
Product/Site security	Y	Y	Y	Y
Review	Y	Y	N	Y
Internal Audit	Y	Y	N	Y
Corrective & Preventive Action	Y	Y	Y	Y

Table 12: Other newly assessed standards (continued)

Scheme	FSSC 22000	Synergy 22000	STS CoP Catering	STS Small & Regional
F.0050/2004				
EC852/2004	Y	Y	Y	Y
Application of HACCP principles	-			
Registration with Local Authority	N	N	N	N
Premises clean and in good repair	Y	Y Y	Y	Y
Good design, layout and	Y	Y	Y	Y
	V	X	X	X
Toilets and Washbasins	Y	Y	Y	Y
Sufficient ventilation (incl toilets)	Y	Y	Y	Y
Sufficient lighting	Y	Y	Y	Y
Adequate drainage & flow	Y	Y	Y	Y
Adequate changing facilities	Y	Y	Y	Y
Adequate segregation	Y	Y	Y	Y
Food room surfaces	Y	Y	Y	Y
Facilities for cleaning & disinfection	Y	Y	Y	Y
Facilities for washing food	<u> </u>			
Transport clean, good repair, segregation, temp cont	Y	Y	Y	Y
Equipment clean and good construction	Y	Y	Y	Y
Waste removal, closable containers, storage, disposal	Y	Y	Y	Y
Water potable, separation, ice/steam/cooling water	Y	Y	Y	Y
Personnel cleanliness, carriers/report illness	Y	Y	Y	Y
Foodstuffs not contaminated	Y	Y	Y	Y
Foodstuffs storage	Y	Y	Y	Y

Scheme	FSSC	Synergy	STS CoP	STS Small &
	22000	22000	Catering	Regional
Foodstuffs protected from	Y	Y	Y	Y
contamination				
Pest control	Y	Y	Y	Y
Temperature control	I	Y	-	Y
Rapid chilling	I	Y	I	I
Defrost controls		I	I	I
Control hazardous waste	Y	Y	Y	Y
Suitable packaging	I	Y	Y	Y
Storage of packaging	I	Y	Y	Y
Prevention of contamination from	I	Y	Y	I
packaging				
Adequacy of heat treatment	I	Y	I	I
Trained/supervised food handlers	Y	Y	Y	Y
Adequate training in HACCP	Y	Y	Y	I
Trained for specific tasks	Y	Y	Y	Y
EC178/2002				
Produce safe food	Y	Y	Y	Y
Responsibility of FBO	I	I	Y	Y
Traceability	Y	Y	Y	Y
Communication with Competent	Y	Y	I	I
Authority				
Additional Demoinements Occurred				
Additional Requirements Covered	V	X	V	N N
Quality Management Systems	Y Y	Y	Y Y	Y Y
Management	Ý	Y	Ŷ	Y
Commitment/Organisation	V	V	V	V
Supplier Assurance Document Control	Y Y	Y	Y	Y
Specifications, Procedures &	Y	Y	Y	Y
Records	I	I	I	I
Recall & Incident Management	Y	Y	Y	Y
Complaint Handling	Y	Y	Y	Y
Maintenance 'systems'	Y	Ý	Y	Ý
Cleaning 'systems'	Y	Y	Y	Y
Wood, glass and metal controls	Y	Y	Y	Y
Allergen management	Y	Y	Y	Y
Quantity Control	N	N	N	Y
Product Analysis/Laboratory use	Y	Y	Y	Y
Calibration	Y	Y	Y	Y
Labelling/Identification	Y	Y	Y	Y
Stock rotation	Y	Ý	Y	Y
Rework	Y	Ý	N/A	N/A
Product Development			Y	Y
Product/Site security	Ý	Ý	Ý	· ·

Scheme	FSSC 22000	Synergy 22000	STS CoP Catering	STS Small & Regional
Review	Y	Y	Y	Y
Internal Audit	Y	Y	Y	Y
Corrective & Preventive Action	Y	Y	Y	Y

Table 13: Other newly assessed standards (Continued)

Scheme	British Sandwich	NACB	SALSA	SQWV
	Assoc			
EC852/2004				
Application of HACCP principles	Y	Y	Y	Y
Registration with Local Authority	Y	Y	N	N
Premises clean and in good repair	Y	Y	Y	Y
Good design, layout and construction	Y	Y	Y	Y
Toilets and Washbasins	Y	Y	Y	
Sufficient ventilation (incl toilets)	Y	Y	1	Y
Sufficient lighting	Y	Y	1	Y
Adequate drainage & flow	Y Y	Y	1	Y
Adequate changing facilities	Y	Y	I	
Adequate segregation	Y	Y	Y	Y
Food room surfaces	Y	Y	Y	Y
Facilities for cleaning & disinfection	Y Y	Y	Y	Y
Facilities for washing food				
Transport clean, good repair, segregation,	Y I	Y	Y	Y
temp cont				
Equipment clean and good construction	Y	Y	Y	Y
Waste removal, closable containers,	Y Y	Y	Y	Y
storage, disposal	I	I	I	I
Water potable, separation,	Y	Y	Y	Y
ice/steam/cooling water	1	I		I
Personnel cleanliness, carriers/report	Y	Y	Y	Y
illness	1			
Foodstuffs not contaminated	Y	Y	Y	Y
Foodstuffs storage	Ý	Ý	Ý	Ý
Foodstuffs protected from contamination	Ý	Ý	Ý	Ý
Pest control	Ý	Ý	Y	Ý
Temperature control	Y	Ý	Ý	Ý
Rapid chilling	Y	Ý	1	N/A
Defrost controls	Y		I	N/A
Control hazardous waste	Y	Ý	Y	Y
Suitable packaging	Ý	Ý	Y	Ý
Storage of packaging	Y	Y	1	Y
Prevention of contamination from	Ý	Y		Y
packaging	'			
Adequacy of heat treatment	Y	Y	1	N/A
Trained/supervised food handlers	Ý	Ý	Y	Y
Adequate training in HACCP	1	Y	Y	Y
Trained for specific tasks	Ý	Ý	Y	Ý
	•			
EC178/2002				
Produce safe food	Y	Y	Y	Y
Responsibility of FBO	Ý	Ý	Ý	Ý
Traceability	Ý	Ý	Ý	Ý
Communication with Competent Authority	N N	N	N	N

Scheme	British Sandwich Assoc	NACB	SALSA	SQWV
Additional Requirements Covered				
Quality Management Systems	Y	Y	Y	I
Management Commitment/Organisation	Y	Y	Y	I
Supplier Assurance	Y	Y	Y	I
Document Control	Y	Y	Y	Y
Specifications, Procedures & Records	Y	Y	Y	Y
Recall & Incident Management	Y	Y	Y	Ν
Complaint Handling	Y	Y	Y	Y
Maintenance 'systems'	Y	Y	Y	Ι
Cleaning 'systems'	Y	Y	Y	Y
Wood, glass and metal controls	Y	Y	Y	Y
Allergen management	Y	Y	I	N/A
Quantity Control	N	Ν	N	Ν
Product Analysis/Laboratory use	Y	Y	Y	Y
Calibration	Y	Y	Y	Ν
Labelling/Identification	Y	Y	Y	Y
Stock rotation	Y	Y		I
Rework	Ν	Y	Ν	I
Product Development	N	Y		Ν
Product/Site security	Y	Y		Ν
Review	Y	Y	Y	Y
Internal Audit	Y	Y	Y	Y
Corrective & Preventive Action	Y	Y	Y	Y

Table 14: Other newly assessed standards (Continued)

Scheme	Q GUILD	IFS	IFS Storage & Distribution (Logistics)
EC852/2004			
Application of HACCP principles	Y	Y	Y
Registration with Local Authority	N	Ν	N
Premises clean and in good repair	Y	Y	Y
Good design, layout and construction	Y	Y	I
Toilets and Washbasins	Y	Y	I
Sufficient ventilation (incl toilets)	Y	Y	Y
Sufficient lighting	Y	Y	Y
Adequate drainage & flow	Y	Y	N/A
Adequate changing facilities	I	Y	I
Adequate segregation	Y	Y	Y
Food room surfaces	Y	Y	N/A
Facilities for cleaning & disinfection	Y	Y	Y
Facilities for washing food	Y		N/A
Transport clean, good repair, segregation, temp	Y	Y	Y
cont			
Equipment clean and good construction	Y	Y	I

Scheme	Q GUILD	IFS	IFS Storage & Distribution (Logistics)
Waste removal, closable containers, storage, disposal	Y	Y	N
Water potable, separation, ice/steam/cooling water	Y	Y	I
Personnel cleanliness, carriers/report illness	Y	Y	I
Foodstuffs not contaminated	Y	Y	Y
Foodstuffs storage	Y	Y	Y
Foodstuffs protected from contamination	Y	Y	Y
Pest control	Y	Y	Y
Temperature control	Y	Y	Y
Rapid chilling	Y		I
Defrost controls	Y		l
Control hazardous waste	Y	Y	Y
Suitable packaging	Y	Y	Y
Storage of packaging	Y	Y	N/A
Prevention of contamination from packaging	I	Y	Y
Adequacy of heat treatment	I		N/A
Trained/supervised food handlers	Y	Y	I
Adequate training in HACCP	Y	Y	Y
Trained for specific tasks	Y	Y	
EC178/2002			
Produce safe food	Y	Y	I
Responsibility of FBO	Y	Y	Y
Traceability	I	Y	Y
Communication with Competent Authority	N	Y	Y
Additional Requirements Covered			
Quality Management Systems	N	Y	Y
Management Commitment/Organisation	N	Y	Y
Supplier Assurance	Y	Y	<u> </u>
Document Control	N	Y	Y
Specifications, Procedures & Records	Y	Y	Y
Recall & Incident Management	N	Y	Y
Complaint Handling	Y	Y	Y
Maintenance 'systems'	N	Y	Y
Cleaning 'systems'	Y	Y	Y
Wood, glass and metal controls	Y	Y	I
Allergen management	N	Y	Y
Quantity Control	N	Y	N
Product Analysis/Laboratory use	N	Y	N/A
Calibration		Y	Y
Labelling/Identification	Y	Y	Y
Stock rotation	Y	Y	Y
Rework	N		N/A
Product Development	N	Y	N/A
Product/Site security	Ν	Y	Y

Scheme	Q GUILD	IFS	IFS Storage & Distribution (Logistics)
Review	Ν	Y	Y
Internal Audit	Ν	Y	Y
Corrective & Preventive Action	Ν	Y	Y

9.3 Assessment against EC 853/2004

There are a number of standards and certification schemes applicable to meat processing. Some of the generic schemes (e.g. BRC and IFS) are also used, sometimes in conjunction with the standards specifically designed for parts of the meat industry, to provide an allencompassing set of requirements.

In comparing the requirements of 853/2004 with the standards written for the meat sector, it is apparent that the applicable legislative requirements are recognised as the basis for the standards. The majority of the standards examined describe additional requirements and have a specific focus e.g. to promote products.

The standards examined are as follows:

Farm Assurance Standards including Red Tractor (various), Farm Assured Welsh Livestock (FAWL)(2008), Northern Ireland Beef and Lamb Farm Assurance Scheme (NIBLFAS)(2010), Quality Meat Scotland – Cattle, Sheep and Pigs

Farm Assurance Standards stipulate the requirement to comply with all relevant legislation and although they set requirements for supply of livestock to slaughter and all pertinent activities e.g. husbandry, housing, feed management, veterinary treatment and withdrawal periods following medication, animal identification and supply of food chain information to the slaughterhouse, provision of clean animal to slaughter and requirements for cleaning vehicles, they contain few additional requirements in relation to EC 853/2004.

ABM/Red Tractor Abattoir, Cutting and Packing Plant Standard (January 2008 v4)

This scheme covers the same scope as the red meat elements of EC853/2004. The standard comprises a core module covering general requirements, Module A defining requirements for abattoirs and Module B defining requirements for cutting and packing plants. Businesses seeking certification to this standard may use BRC certification in place of the core module, providing they are audited against the specific module relating to their operation (i.e. Module A or Module B)

There is a clearly defined requirement for legislative compliance. The specific requirements of the standard reinforce some elements of legislation (e.g. temperature control requirements) but not all. The standard states it prole as a standard for beef and lamb but makes some reference to pigs. There is no reference to the standard being applicable to poultry slaughter other than a passing reference to the suitability of a poultry-related qualification being suitable for personnel working in abattoirs

Red Tractor Standard: Poultry Standards – Catching, Transport and Slaughter (Version 1.01: April 2011)

This standard is brief and covers depopulation within poultry flocks and requirements for the catching team. The standard primarily covers animal welfare requirements during catching, transport and slaughter and states the requirements that these activities are undertaken in accordance with legislation. In addition to animal welfare and reducing stress on the birds, the standard requires provision for emergencies and record keeping. It does not cover the structural requirements for vehicles and slaughterhouses and does extend beyond slaughter.

Red Tractor (formerly ABM) Livestock Markets and Collection Centres Standard (Version 2.1, Effective February 2010)

This standard covers food safety, traceability, animal welfare and environmental protection but the scope is limited to markets and collection centres and includes requirements for employees, premises construction, arrival, lairage, sale/transfer of ownership, documentation, transportation, biosecurity and public safety, environment and legal compliance. It makes reference to the requirement for the separation of ill/diseased animals but the scope of the document does not *±*verlapqwith EC853/2004 other than with reference to transport. The scope of the standard is primarily beef and lamb with reference to pigs.

Red Tractor/ABM Livestock Transport Scheme (Version 2.4, June 2011)

This standard covers transport requirements for beef, lamb and pigs and defines requirements for compliance with legislation, animal welfare, traceability and environmental protection. Specifically, the standard covers **documentation for employees and livestock, procedures for the transport of livestock (**animal handling, bedding, space allowances, segregation, ventilation, unfit/ill/injured livestock, driving, cleansing and disinfection, contingency plans, complaints recording) and **vehicle construction (**loading/unloading facilities ramps/flooring, partitions, inspection facilities, lighting and logo usage).

The *Dverlapqwith* EC 853/2004 is limited to transport of live animal to the slaughterhouse

Quality Meat Scotland Processor Standard (March 2010)

This standard is similar in scope to the ABM standard and covers the elements of EC853/2004 covering cattle, sheep and pork. The standard defines requirements additional to the legislative requirements for slaughter, dressing, classification and chilling. Legislative compliance is a requirement and the standard reinforces some elements of the legislation (e.g. temperature control requirements) but not all legislative requirements are specified.

Scottish Quality Wild Venison (April 2009)

This standard defined requirements for primary processing of wild venison and deals with animals following culling on an approved SQWV site. The standard covers product specifications, processing requirements that reinforce the legislative requirements with regard to temperature control, traceability, cleaning and hygiene and quality management systems. The basis for the standard is legislative compliance.

British Meat Products Association (BMPA) (Animal Welfare & Slaughter (July 2010 v2), Pork (July 2010 v4) and Pork Sausage Standards (March 2008 v7))

This scheme applies to pork and pork products only. The comparison with EC 853/2004 covered the three standards defined above. The foundation for the application of these standards is the BRC standard and the standards are used in combination as they relate to the specific operation. The basis for the scheme is legislative compliance and the specified requirements are additional or further elaboration of those in the legislation

Guild of Q Butchers (2009)

This standard has two components covering quality and hygiene. The target users of this scheme are retail butchers and the requirements of EC852/2004 are therefore more applicable but this was included in the examination as the standard covers meat and butchery. The standard implies the requirement for legislative compliance although this is not explicitly stated. The quality element of the standard is primarily about the appearance of the premises, customer care, product quality and display. The hygiene element covers

many of the requirements of EC 852/2004 and the temperature control requirements stipulated are a combination of 852/2004 and 853/2004

National Association of Catering Butchers (June 2007 v3)

This standard, aimed at catering butchery operations, is a generic but comprehensive standard similar in scope to the BRC with some specific requirements relating to meat including temperature control requirements and a reiteration of equipment/disinfection requirements. The standard offers three levels of compliance at entry, commendation and higher levels but all levels exceed the legislative requirements. The standard covers red meat and poultry. The standard seeks to build consumer confidence in catering butchers

EBLEX

The EBLEX scheme is primarily designed to promote the use of beef and lamb and relies on other assurance schemes operating in the industry as shown below. For this reason, the <u>+</u>equirementsqof the scheme were not compared to legislative requirements as the assurance schemes recognised by EBLEX have been covered above

	Beef and Lamb
Farm Assurance/ Assured Auction Mart	Assured British Meat Standards through FABBL Beef and Lamb or ACCS Beef and Lamb ABM Auction Mark Standard QMS Marketing Standard Farm Assured Welsh Livestock (FAWL) Northern Ireland Farm Quality Assurance Scheme (NIFQAS) Specially Selected Scottish Farm Assured (SSSFA) (The QMS Farm Assured Cattle and Sheep Standard) Genesis Quality Assurance (Whole Farm) (Beef and Sheep Module) Soil Assurance Farm Assurance Module for Beef and Lamb
Transport	ABM Transport Standard QMS Transport Standard
Abattolr	ABM Abattoir, Cutting and Packing Plant Standard (Core + Module A) Global Food Standard (BRC) + (ABM Module A) International Food Standard (IFS) + (ABM Module A) Quality Meat Scotland Processor Standard
Cutting Plant	ABM Abattoir, Cutting and Packing Plant Standard (Core + Module B) Global Food Standard (BRC) + (ABM Module B) Quality Meat Scotland Processor Standard International Food Standard (IFS) + (ABM Module B) ABM/NACB Catering Butchers Standard
Further Processor	ABM Abattoir, Cutting and Packing Plant Standard (Core + Module B) Global Food Standard (BRC) + (ABM Module B) Quality Meat Scotland Processor Standard International Food Standard (IFS) + (ABM Module B) ABM/NACB Catering Butchers Standard
Wholesaler	Storage and Distribution Standard (BRC) CMI Standard for Storage,Wholesale and Distribution SAI Global (EFSIS) Storage and Distribution Standard

Table 16 provides a comparison of the standards against EC 853/2004. The standards were grouped, as per Table 15, into those with similar/same requirements. The letters A, B C etc are used in Table 16 for the sake of reducing the size of the table.

The words in Table 16 mean:

Grey Shading = Out of Scope,

NS = Not Specified,

N/A = Not applicable

I = Implied ó meaning the standard had high level requirements that would require the business to comply with the legislation but did not cite each specific legislative requirement;

Yes= EC 853/2004 requirement is met

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Table 15: Grouping of schemes

Farm Assurance Schemes: FAWL, Red Tractor, NIBL, QMS - Cattle, Sheep & Pigs	Red Tractor Livestock Markets and Collection Centres	Red Tractor: Livestock Transport Standard	Red Tractor Poultry Catching, Transport and Slaughter	Red Tractor: Abattoir, Cutting & Packing Plant Standards . Nominally beef and lamb only but makes reference to	Quality Meat Scotland Farm Assurance: Processor Standard	Scottish Quality Wild Venison	BMPA (includes Animal Welfare & Slaughter*, Pork**, Pork Sausage*** Standards)	Q Guild Quality & Hygiene (all species)	NACB (all species)
				reterence to pigs . not poultry			Standards)		
A	В	С	D	E	F	G	Н	I	J

Table 16: Report on the Coverage of the Requirements of EC 853/2004 by Standards Used for Certification of Meat Premises (June 2011)

	Scheme	A	В	C	D	Е	F	G	Н	I	J
	Standard states requirement for compliance with all legislative requirements	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Implied	Yes
	Animal Welfare	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes*	No	No
	Product Identification	Yes	Implied	Implied	NS	Yes	Yes	Yes	Yes	Implied	Yes
	Traceability	Yes	Yes	Yes	NS	Yes	Yes	Yes	Yes	Implied	Yes
	НАССР	No (only for feed)	No	No	No	Yes	Yes	Yes	Yes	Implied	Yes
	EC853/2004 – Annex III: Section 1: Meat of Domestic Ungulates										
	Chapter 1: Transport of Live Animals to the Slaughterhouse										
1	Care in animal handling . collection and transport	Yes		Yes		Yes	Yes		Yes*		
2	Permission by CA for transport of diseased animals	NS		Yes		NS	NS		NS		
	Chapter 2: Requirements for Slaughterhouses										
1a	Adequacy of hygienic lairage/waiting pens; facilities of watering/feeding. Adequate drainage					Yes	Yes		Yes*		
1b	Separate lockable facilities for diseased/suspect animals to avoid contamination of other animals					NS	NS		NS		
1c	Lairage size respects animal welfare &					Yes	NS		NS		

	Scheme	Α	В	C	D	E	F	G	Н	I	J
	allows ante-mortem inspection/animal identification										
2	To prevent contamination of meat, slaughterhouses must have:										
а	Sufficient number of rooms					NS	NS		NS		
b	Separate room for emptying/cleaning stomachs/intestines (unless CA permits separation otherwise)					NS	NS		NS		
С	Separation in time or space for stunning/bleeding, [scalding, depilation, scraping, singeing for porcine), evisceration/further dressing, handling clean guts/tripe, preparation/cleansing offal, packaging offal, dispatching meat					NS	NS		NS		
d	Facilities preventing contact between meat and building structure					NS	NS		NS		
е	Slaughter lines allowing constant progress and prevent cross-contamination. Separation between lines					NS	NS		NS		
3	Facilities for disinfection of tools <u>></u> 82 °C or equivalent	·				Yes	NS		NS		
4	Handwash/meat wash facilities-taps designed to prevent contamination spread					NS	NS		NS		
5	Lockable facilities for refrigerated storage of detained meat & separate lockable facilities for unfit meat					NS	NS		NS		
6	Facilities for cleaning/disinfection of livestock transport or alt. CA approved facilities locally					Yes	Yes		NS		
7	Lockable facilities for sick/suspect animals or alt CA approved facilities/end of slaughter					NS	NS		NS		
8	Specific storage for manure/gut contents					NS	NS		NS		
9	Equipped, lockable facility/room for vet					NS	NS		NS		

	Scheme	А	В	С	D	E	F	G	Н	I	J
	Chapter 3: Requirements for Cutting Plants										
1	Cutting plants constructed to avoid contamination through constant progress/separation of different batches					NS	Yes		NS		Yes
2	Separate storage for exposed and packaged meat (or alt to prevent contamination)					NS	NS		NS		Yes
3	Cutting rooms equipped for hygienic operation					NS	Yes		NS		Yes
4	Equipment for handwash . taps designed for preventing spread of contamination					NS	NS		NS		Yes
5	Facilities for disinfection of tools <u>></u> 82 °C or equivalent					NS	NS		NS		Yes
	Chapter 4: Slaughter Hygiene										
1	Slaughter not to be delayed or, where					NS	NS		NS		
	required for welfare, resting period permitted										
2a	Stipulation about animals for meat for human consumption (i.e. only from any deaths resulting from slaughter in slaughterhouse)					NS	NS		NS		
2b	Only live animals for slaughter to be brought into slaughterhouse except those covered by emergency slaughter provision. Those slaughtered at place of production (Section III) and wild game (Section IV, Chap 2)					NS	NS		NS		
2c	Meat from animals slaughtered following accident in slaughterhouse may be used for human consumption if inspection outcome satisfactory					Procedures reqopt	NS		NS		
3	Animals/batch of animals identified to allow tracing to source					Yes	Yes		NS		
4	Animals to be clean					Yes	NS		Yes*		
5	Slaughterhouse to follow CA instructions to					NS	NS		NS		

	Scheme	Α	В	С	D	E	F	G	Н	I	J
	allow a-m inspection of all animals										
6	Animals brought into slaughter hall to be					NS	NS		NS		
	slaughtered without delay										
7	Stunning, bleeding, skinning, evisceration,					Partially	NS		NS		
	dressing to be done without delay to avoid					specified					
	meat contamination (trachea/oesophagus										
	remain intact during bleeding (religious										
	exception), prevention contamination from										
8	hide/fleece, gut content, milk/colostrum Complete skinning required (exceptions for					NS	NS		NS		
0	pigs and heads/feet of goats, sheep and					113	NO		NO		
	calves. Handling of heads and feet to										
	prevent contamination of meat.										
9	Non-skinned pigs . immediate bristle					NS	NS		NS		
_	removal. Minimisation of meat contamination					_			_		
	from scalding water/use of approved										
	additives/through rinsing with potable water										
10	Carcases . no visible faecal contamination .					NS	NS		NS		
	removal by trimming/alt equivalent means										
11	Carcases/offal . no contact with building					NS	NS		NS		
	structure/workstands										
12	Slaughterhouse to follow CA instructions to					NS	NS		NS		
	allow p-m inspection of all animals under										
40	suitable conditions					NO			NO		
13	Until p-m inspection, animal parts must					NS	NS		NS		
	remain identifiable to a given carcase/not come into contact with carcase, offal, viscera										
	that has been inspected (if no pathological										
	reason, penis can be discarded immediately)										
14	Kidneys to be removed from fat (incl peri-					NS	NS		NS		
	renal capsule where applicable)										
15	If blood/offal from several animals collected					NS	NS		NS		

	Scheme	A	В	С	D	E	F	G	Н	I	J
	in same container pre p-m inspection, must be declared unfit if any of carcases declared unfit										
16	After p-m inspection, tonsils (bovine/solipeds) removed hygienically, unfit parts removed from clean area asap, unfit/detained meat/inedible by-products must not contact meat for human consumption, viscera (or part) remaining in carcase (except kidneys) to be removed asap (unless CA authorised)					NS	NS		NS		
17	After slaughter & p-m inspection, meat stored in accordance with Chapter VII					Yes	Yes		NS		
18	If further handled, stomachs scalded or cleaned, intestines emptied and cleaned, heads & feet skinned, scalded and depilated					NS	NS		NS		
19	Where slaughterhouses approved for slaughter of different species, shall be adequate separation + separate reception and storage of unskinned farmed and wild game					NS	NS		NS		
20	Lockable facilities for slaughter of sick/suspect animals or supervised cleaning and disinfection of facilities before resumption of other animals					NS	NS		NS		

	Scheme	A	В	С	D	E	F	G	Н	I	J
	Chapter V: Hygiene during Cutting & Boning										
1	Carcases of domestic ungulates cut into half/quarter carcases and half carcases into <3 cuts in slaughterhouses. Further cutting/boning in cutting plant					NS	NS	NS	NS	NS	NS
2	Organisation of work to minimise contamination . meat brought into cutting rooms as required, meat maintained at \leq 3 °C for offal and \leq 7 °C for other meat with ambient temperature of \leq 12°C or equivalent, precautions taken to prevent x-species contamination					Yes	Yes	Yes	Yes**	Temps specified: 3°C for offal, <8°C for all other NS for ambient	Yes
3	Meat may be boned and cut warmer if for specific products . per requirements in Chapter VII					NS	NS	NS	NS	NS	NS
4	Meat may be boned and cut warmer if cutting on same site as slaughter and meat transferred directly from slaughter or after period in chill room. Once cut, meat to be chilled to $\leq 3/7$ °C					NS	NS	NS	NS	NS	NS
	Chapter VI: Emergency Slaughter Outside the Slaughterhouse										
1-9	Meat from domestic ungulates slaughtered as emergency only used for human consumption if otherwise healthy animal suffering accident prevented from transport to slaughterhouse for welfare reasons, vet carried out ante-mortem inspection, slaughtered and bled animal transported to slaughterhouse hygienically and without										

	Scheme	А	В	С	D	E	F	G	Н	I	J
	delay (limitations on dressing and requirement for viscera to accompany animal and be identified as belonging to the animal), animal to be refrigerated if > 2 hours between slaughter and arrival at slaughterhouse, declaration by FBO rearing animal about identity of animal and details of veterinary treatments administered, declaration by vet about outcome of ante- mortem inspection/details of emergency slaughter, animal deemed fit for human consumption after post-mortem inspection at slaughterhouse, FBO to follow vet instructions concerning use of meat, meat from emergency slaughtered animals not to be placed on market unless bears special health mark and in country in which slaughtered										
	Chapter VII: Storage & Transport										
1-5	· · · · · · · · · · · · · · · · · · ·					Yes	Yes		Yes**		

	Scheme	A	В	С	D	E	F	G	Н	I	J
	products if in accordance with CA specified conditions and if the meat leaves the slaughterhouse/cutting room immediately after slaughter and transport takes ≤ 2 hours Meat for freezing is frozen without delay Exposed meat stored/transported separately from packed meat unless adequate measures taken to prevent contamination										
	EC853/2004 – Annex III: Section 2: Meat										
	from Poultry and Lagomorphs										
	Chapter 1: Transport of Live Animals to										
	the Slaughterhouse										
1	Animals to be handled carefully to avoid				Yes						
	stress during collection and transport										
2	Animals with signs of disease or from flocks contaminated with public health significant				Sick birds						
	agents only to be transported when permitted by CA				to be culled						
3	Delivery crates made of non-corrodible material and easy to clean/disinfect. All equipment used for delivery/collection live animals to be cleaned/disinfected immediately after emptying				Yes						
	Chapter 2: Requirements for									_	
	Slaughterhouses										
	Construction, layout and equipment of slaughterhouses must meet requirements:										
1	Room or covered space for reception and ante-mortem inspection				Yes						
2a	Adequate numbers of rooms for operations undertaken to avoid meat contamination				NS						
2b	Separate room for evisceration/further				NS						

	Scheme	A	В	C	D	E	F	G	Н	I	J
	dressing/addition of seasonings										
2c	Spatial or temporal separation for stunning &				NS					·	
	bleeding, plucking or skinning and scalding, dispatching meat										
2d	Have installations that prevent contact between meat and surrounding surfaces				NS						
2e	Have slaughter lines that allow progress through process and avoid x-contamination				NS						
3	Facilities for disinfecting tools (hot water at >82 °C or equivalent)				NS						
4	Equipment for staff handwashing and taps designed to prevent contamination				NS						
5	Lockable facilities for detained meat and, separately, for unfit meat				NS						
6	Separate facilities for cleaning/disinfecting crates/transport (although not required if authorised facilities are located nearby)				Yes						
7	Adequately equipped lockable facility/room for vet				NS						
	Chapter III: Requirements for Cutting Plants										
1	FBO must ensure cutting plants for poultry or lagomorphs are constructed to avoid contamination of meat by having:										
1a	Constant progress of meat through the process and by ensuring separation between batches									Yes	Yes
1b	Separate rooms for storage of exposed and packed meat or equivalent means of separation									NS	Yes
1c	Cutting rooms equipped as defined in Chapter V									NS	Yes

	Scheme	A	В	С	D	E	F	G	Н	I	J
1d	Equipment for staff handwashing and taps designed to prevent contamination									Yes	Yes
1e	Facilities for disinfecting tools (hot water at <u>></u> 82 °C or equivalent)									NS	Yes
2	Separate food rooms required in cutting plants for evisceration of geese and ducks for <u>fo</u> ie grasqwhich have been stunned, bled and plucked on farm or for evisceration of delayed evisceration poultry.									NS	NS
	Chapter IV: Slaughter Hygiene				_						
1a	Meat from animals other than those defined below must not be used for human consumption if they are not slaughtered in the slaughterhouse				NS						
1b	Only live animals intended for slaughter may be brought to the premises except for delayed eviscerated poultry, geese and ducks for <u>foie</u> grasqand non-domestic farmed birds that have been slaughtered on farm in accordance with Chapter VI, farmed game slaughtered at the place of production in accordance with Section III and small wild game slaughtered in accordance with Section IV, Chapter III				NS						
2	Slaughterhouse to follow CA instructions to allow a-m inspection of all animals				NS						
3	Where slaughterhouses approved for slaughter of different animal species, or handling farmed ratites and small wild game, precautions required to prevent x- contamination. Separate facilities for reception and storage of farmed ratites				NS						

	Scheme	A	В	С	D	E	F	G	Н	I	J
	slaughtered on farm and small wild game to be available										
4	Animals brought into slaughter room to be slaughtered without delay				Yes						
5	Stunning, bleeding, skinning or plucking, evisceration and further dressing must be carried out without undue delay and in manner to prevent contamination esp with regard to gut contents				Yes						
6	Slaughterhouse operatives must follow CA instructions to ensure that post-mortem inspection is carried out properly				NS						
7	After post-mortem inspection, parts not suitable for human consumption to be removed from clean area asap, meat detained or declared unfit and inedible by- products must not contact meat for human consumption and viscera/parts remaining in the carcase except kidneys, to be removed completely asap				NS						
8	After inspection and evisceration, slaughtered animals to be cleaned and chilled to ≤ 4 °C asap unless cut while warm.				NS						
9	Where carcases subject to immersion chilling, precautions taken to avoid contamination of carcases (taking into account weight, water temperature, volume and direction of water flow and chilling time) and equipment must be emptied, cleaned and disinfected at least daily				NS						
10	Sick or suspect animals and animals slaughtered for disease eradication/control				NS						

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	Scheme	A	В	C	D	E	F	G	Н	I	J
	must not be slaughtered in the establishment, unless permitted by CA. If permitted full cleaning and disinfection required before further use.										
	Chapter V: Hygiene during and after Cutting and Boning (Poultry & Lagomorphs)										
1	Work must be organised to prevent/minimise contamination:									Yes	Yes
1a	Meat brought into workrooms as required									Yes	NS
1b	During cutting, boning, trimming, slicing, dicing, wrapping and packaging, temperature of the meat to be maintained \leq 4 °C through ambient conditions at 12 °C or equivalent.									Yes NS for ambient	Yes
1c	Precautions to be taken to avoid cross species contamination, where applicable									NS	Yes
2	Meat to be chilled to above temperatures as soon as cut/packaged									NS	NS
3	Meat may be boned and cut at warmer temperatures where cutting is on same site as slaughter and meat is transferred directly to cutting from slaughter or after a waiting period in chill									N/A	NS
4	Exposed meat to be stored and transported separately from packed meat or similar to prevent contamination									N/A	NS

	Scheme	A	В	С	D	E	F	G	Н	I	J
	Chapter VI: Slaughter on the Farm										
	FBOs may slaughter poultry (delayed eviscerated poultry, geese and ducks for <u>foie</u> grasqand non-domestic farmed birds) on the farm with authorisation of CA if:										
1 2	The farm undergoes regular vet inspection FBO informs CA in advance of date and time of slaughter										
3	Facilities exist for concentrating the birds for group ante-mortem inspection										
4	Facilities exist for hygienic slaughter and handling of birds										
5	Animal welfare requirements are complied with										
6	Slaughtered birds are sent to slaughterhouse with declaration from FBO with details of vet treatments and details of slaughter										
7	Slaughtered birds are sent to slaughterhouse with a certificate from the OV										
8	If poultry reared for <u>foie</u> grasq uneviscerated birds to be transported immediately to slaughterhouse or cutting plant, refrigerated if necessary. To be eviscerated within 24 hours of slaughter under supervision of CA										
9	Delayed eviscerated poultry obtained at farm of production may be kept for up to 15 days at a temperature of \leq 4 °C and then eviscerated in a slaughterhouse or cutting plant in same member state as farm of production										

	Scheme	А	В	С	D	E	F	G	Н	I	J
	Section III: Meat of Farmed Game										
1	Section I requirements apply to production and placing on the market of even-toed farmed game mammals unless CA advises										
2	Section II requirements apply to production and placing on the market of ratities and Section I requirements apply if CA advises. Facilities must be adapted to size of the animals										
3	 FBOs may slaughter farmed ratites and ungulates at the point of origin if: Animals cannot be transported . risk to handler or animal welfare Herd undergoes regular veterinary inspection Owner of the animal submits a request CA informed in advance of date and time of slaughter Holding has facilities for concentrating herd for ante-mortem inspection Holding has suitable facilities for slaughter, bleeding and plucking as appropriate Animal welfare requirements met Slaughtered and bled animals transported to slaughterhouse hygienically without delay. If transport > 2 hours, animals chilled, Evisceration may take place at slaughter under vet supervision 										

	Scheme	A	В	С	D	E	F	G	Н	I	J
	 with animals by FBO . identity and vet treatments Vet certificate sent with animals to slaughterhouse - satisfactory antemortem inspection/slaughter/bleeding + date/time of slaughter 										
4	FBOs may slaughter bison in accordance with above requirements										
	Section IV: Wild Game Meat										
	Chapter I: Training of Hunters in Health										
4.0	and Hygiene										
1&2	Hunters of wild game for placing on market . sufficient knowledge of pathology, production, handling of wild game and meat to examine wild game on the spot. At least one person in hunting party with this knowledge is sufficient										
3	Trained person may be the gamekeeper/game manager if in party or immediate vicinity of hunting. Hunter must present wild game to trained person and inform of abnormal behaviour prior to killing.										
4	 Training must satisfy CA and must cover: Anatomy, physiology and behaviour of wild game Abnormal behaviour and pathological changes indicating possible adverse effects on human consumer Hygiene rules for handling, transportation, evisceration etc postmortem Legislative and admin provision for 										

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	Scheme	A	В	С	D	E	F	G	Н	I	J
	placing wild game on market										
5	CA to encourage hunters organisations to provide training.										
	Chapter II: Handling of Large Wild Game										
1	Large wild game to have stomachs & intestines removed asap after killing & bled if necessary.							NS			
2	Trained person to examine animal and viscera for adverse health related indicators asap after killing							NS			
3	Meat may only be placed on market if carcase & related viscera transported to game-handling facility asap after examination and viscera identifiable as being from given animal.							NS			
4	If no abnormal indicators from examination/environmental contamination, trained person to attach numbered declaration to animal to confirm and give details date, time and place of kill. If this applies, head and viscera do not need to accompany body unless species susceptible to Trichnosis (head & diaphragm must accompany body). Hunters must comply with local requirements for monitoring of residues and substances. Otherwise, head (excl protruberances) and viscera (excl stomach and intestines) must accompany the body and trained examiner must advise CA of abnormal behaviour/characteristics/environmental contamination prevent declaration being							NS			

	Scheme	А	В	C	D	E	F	G	Н	I	J
	made. If no trained person to carry out examination, head and viscera as above must accompany body										
5	Chilling must begin within reasonable time from kill and attain ≤ 7 °C throughout.							Yes			
6	Heaping of game must be avoided during transport to game-handling facility							Yes			
7	Large wild game must be presented to the CA for inspection at delivery to game- handling establishment							NS			
8	Unskinned large wild game may only be skinned and placed on the market if before skinning it is stored separately from other food and not frozen and After skinning it is finally inspected in accordance with EC 854/2004							NS			
9	Rules in Section 1, Chapter V apply to cutting and boning of large wild game							Yes			
1	Chapter III: Handling of Small Wild Game Trained person to carry out examination asap after killing to determine whether meat presents a health risk										
2	Trained person to inform CA of any abnormal indications or suspicion of environmental contamination										
3	If to be placed on market, meat of small wild game to be transported to game-handling establishment asap after killing.										
4	Chilling must begin within reasonable time from kill and attain ≤ 4 °C throughout.										
5	Evisceration to be completed without delay										

	Scheme	A	В	С	D	E	F	G	Н	I	J
	on arrival at game-handling facility unless permitted by CA										
6	Small wild game must be presented to the CA for inspection on delivery to game- handling facility										
7	Rules in Section II, Chapter V apply to the cutting and boning of small wild game										
	Section V: Chapter 1: Requirements for Production Establishments										
	Food businesses producing minced meat, meat preparations or MSM must:										
1	Be constructed to avoid product contamination								NS	Yes	Yes
1a	Allow for constant progress of the operation or ensure separation between production batches.								NS	NS	NS
1b	Have rooms for the separate storage of exposed and packed meat and products or alternative to prevent contamination.								NS	NS	Yes
2	Have rooms capable of compliance with temperature requirements detailed in Chapter III								NS	Yes	Yes
3	Have equipment for staff handwashing and taps designed to prevent contamination								NS	Yes	Yes
4	Have facilities for disinfecting tools with hot water supplied at <u>></u> 82 °C or equivalent								NS	NS	Yes
	Chapter II: Requirements for Raw Material										
1	Food businesses producing minced meat, meat preparations or MSM must ensure raw materials:										

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	Scheme	А	В	С	D	E	F	G	Н	l	J
а	 Comply with the requirements for fresh meat 								NS	NS	NS
b	 Derive from skeletal muscle including adherent fatty tissue 								NS	NS	NS
С	 Must not derive from scrap cuttings & trimmings (unless from whole muscle), MSM, meat containing bone fragments or skin, head meat and other specific exclusions 								NS	NS	NS
2	The following may be used for meat preparations:										
а	Fresh meat								NS	NS	NS
b	 Meat meeting requirements in (1) and 								NS	NS	NS
С	 For meat preparations not intended for consumption without heat treatment, meat derived from mincing/fragmentation of meat meeting requirements (1) and MSM meeting requirements in Chapter III 								NS	NS	NS
3	The raw material used to produce MSM must										
а	Comply with the requirements for fresh meat								N/A	NS	NS
bi	Poultry feet, neckskin and head must not be used								N/A	NS	NS
bii	Bones of head, feet, tails, femur, tibia, fibula, humerus, radius and ulna of other animals must not be used								N/A	NS	NS
	Chapter III: Hygiene during and after Production										
	Food businesses producing minced meat, meat preparations or MSM must comply with										

	Scheme	Α	В	С	D	E	F	G	Н	I	J
	requirements:										
1	Work on meat organised to prevent/minimise contamination								NS	Yes	Yes
а	Temperature of <u><</u> 4 °C (poultry), <u><</u> 3 °C (offal), <u><</u> 7 °C (other meat)								Yes***	Temps OK except 8°C specified for other meat	Yes
b	Meat brought for preparation as required								NS	Yes	Yes
2	Requirements for production of meat and meat preparations										
а	Unless advised by CA, frozen meat for mincing/meat preparations must be boned before freezing. Storage permitted only for limited period								NS	NS	NS
b	When prepared from chilled meat, minced meat must be prepared: For poultry meat, within 3 days of slaughter For other animals, within 6 days of slaughter For boned, vac-packed beef & veal within 15 days of slaughter								NS	NS	NS
С	After production minced meat and meat preparations must be immediately wrapped/packed and chilled to internal temperature of ≤ 2 °C for minced meat and ≤ 4 °C for meat preparations or frozen to ≤ -18 °C and temperatures maintained during storage and transport.								NS	NS	NS
3	Requirements for the production and use of MSM produced using techniques that do not								N/A	NS	NS

	Scheme	A	В	С	D	E	F	G	Н	Ι	J
	alter bone structure or result in calcium levels significantly higher than in minced meat										
а	Raw meat for deboning from on-site slaughterhouse \leq 7 days old, from other slaughterhouse \leq 5days old, poultry carcases \leq 3 days old								NS	NS	NS
b	Mechanical separation to take place immediately after deboning								N/A	NS	NS
C	If not used immediately, MSM to be wrapped/packed and chilled to <2 °C or <-18 °C and maintained during storage and transport								N/A	NS	NS
d	If FBO micro analysis results in accordance with EC854/2004, MSM may be used in meat preparations that are intended for heat treatment before consumption and in meat products								N/A	NS	NS
e	If micro results do not meet defined criteria, MSM may only be used in the manufacture of heat treated products in approved establishment.								N/A	NS	NS
4	Requirements for MSM produced using techniques other than those detailed in (3)								N/A	NS	NS
а	Raw meat for deboning from on-site slaughterhouse \leq 7 days old, from other slaughterhouse \leq 5days old, poultry carcases \leq 3 days old								N/A	NS	NS
b	If mechanical separation does not take place immediately after deboning, flesh-bearing bones to be stored and transported and <u><</u> 2 °C or <u><</u> -18 °C								N/A	NS	NS

	Scheme	A	В	С	D	E	F	G	Н	I	J
С	Flesh-bearing bones from frozen carcases must not be re-frozen								N/A	NS	NS
d	If not used within 1 hour of separation, MSM must be chilled immediately to ≤ 2 °C.								N/A	NS	NS
e	If, after chilling, MSM not processed within 24 hours, must be frozen within 12 hours of production and reach internal temperature of \leq -18 °C within 6 hours								N/A	NS	NS
f	Frozen MSM must be wrapped/packed before storage/transport, must not be stored for > 3 months and must be maintained at a temperature \leq -18 °C								N/A	NS	NS
g	MSM may only be used to manufacture heat- treated products at an approved establishment								N/A	NS	NS
5	Minced meat, meat preparations and MSM must not be re-frozen after thawing								NS	NS	NS
	Chapter IV: Labelling										
1	Product labelling must comply with (2) below and with national requirements								NS	NS	NS
2	Packages intended for supply to the final consumer containing minced meat from poultry or solipeds or meat preparations containing MSM must carry a notice that the product must be cooked before consumption								N/A	NS	NS
	Section VI: Meat Products										
1	FBO must ensure the following are not used in the preparation of meat products										

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	Scheme	A	В	C	D	E	F	G	Н	I	J
а	Genitals of male or female animals except testicles								NS	NS	NS
b	Urinary organs except kidneys and bladder								NS	NS	NS
С	Cartilage of the larynx, trachea and extra- lobular bronchi								NS	NS	NS
d	Eyes and eyelids								NS	NS	NS
е	External auditory meatus								NS	NS	NS
f	Horn tissue								NS	NS	NS
g	In poultry, the head (except comb, ears, wattles and caruncles), the oesophagus, the crop, the intestines and the genital organs								N/A	NS	NS
2	All meat including minced meat and meat preparations used to produce meat products must meet the requirements for fresh meat but minced meat and meat preparations for meat products do not need to satisfy the other specific requirements of Section V								NS	NS	NS

9.4 Questionnaire results

The following tables summarise the responses to the questionnaire issued to standard setting and approval organisations. It should be noted that some respondents did not answer some of the questions.

Table 17: Standard setting body

	Number	% saying yes
	saying yes	
Is the standard setting body independent of the	30	83%
organisation(s) undertaking assessment and awarding approval?*		
Does the standard setting committee have an independent	27	75%
chair?		
Is the standards setting body self funding, such as by fees	21	58%
from approval bodies?		
Does the standard setting committee include representatives	s of:	
Consumers	19	53%
Regulators	15	42%
Retailers or processors	31	86%
The assured organisations	29	81%

*One organisation said yes but was in our view the same organisation. This was retained as a Yes in this table but treated as the same organisation in the evaluation.

Most approval organisations were funded by the fees from assessed food businesses with standard setting bodies generally funded by licensing of the standard or membership fees (for trade associations). Seven schemes are funded by membership fees.

Table 18: Approach to standard setting

	Number of	% of
	respondents	respondents
	saying yes	saying yes
Was a hazard (HACCP) approach used to develop the standard(s)?	30	83%
Is standard development and maintenance funded directly by individual food businesses?	11	31%
Does the standard setting body collect and review data at least annually regarding food safety and hygiene standard being achieved by assured businesses? This may be, for example, trends in audits scores, frequency of product recalls and trends in results of food surveillance/samples.	25	69%
Is there a regular check of whether the standard needs to be updated to match changes in regulations, e.g. once a year?	33	92%
Is feedback sought, e.g. each year, from Assurance Scheme stakeholders to identify potential changes to the standard and associated approval processes?	33	92%

Table 19: Scope of the standard

	Number of respondents saying yes	% of respondents saying yes
Do the standards cite pertinent food safety and hygiene regulations that must be met?	27	75%
Do the standards refer to or require compliance with a named code of practice(s)?	30	83%
If the standard refers to a code of practice(s), has this code been developed or approved by the Food Standard Agency or other regulatory body?	23	64%
Are all of the food safety and hygiene standards compulsory?	32	89%
Are (where included in the scheme) animal health and welfare standards compulsory?	18	50%
Do (where included in the scheme) animal health and welfare standards refer to or require compliance with a named code of practice(s)?	15	42%
Were (where included in the scheme) animal health and welfare codes of practice developed or approved by Defra or other regulatory body?	12	33%

Table 20: Information provided to consumers

	Number of respondents saying yes	% of respondents saying yes
Summary data on assessment results, such as the proportion of audits with minor and major non- compliances, and the number of organisations where certification was withheld due to non-compliance	6	17%
The products or activities covered by the scheme	31	86%
What the scheme seeks to achieve and benefits for consumers	28	78%
Do requirements of the scheme exceed the legal minimum (and if so in what way)	27	75%
A list of approved organisations	28	78%
How the scheme ensures standards are achieved;	29	81%
Scheme arrangements for monitoring delivery of standards;	27	75%
Evidence for any claimed food safety benefits;	15	42%
Composition (membership) of standards setting board.	16	44%
The logo/label and its meaning	27	75%
Are there controls regarding the use of any logo you use by assured organisations? Such as a licensing scheme.	33	92%

Table 21: Assessment bodies

	Number of respondents saying yes	% of respondents saying yes
Are all Approval Bodies required by the standard setting organisation to have EN45011 accreditation by United Kingdom Accreditation Services (UKAS) or an equivalent European/International accreditation, such as ISO/IEC 17021:2006?	30	83%
If they are not required to have EN45011 or equivalent are they required by the Standard Setting body to have comparable quality management systems?	3	8%
Are Approval Bodies required to record the number audits undertaken and their results?	32	89%
Do the requirements for assessors include:		
A relevant degree, such as in agriculture or food technology?	21	58%
A minimum number of years experience in agriculture, food processing etc?	29	81%
Completion of a certificated course in auditing?	25	69%
Completion of a minimum number of audits accompanied by another auditor prior to being % signed off+.	30	83%
Completion of a minimum number of audits per year to maintain their authorisation.	24	67%
Completion of a minimum amount of Continuing Professional Development each year.	28	78%

The comments on requirements for assessors are shown below.

Table 22: Free text explanation of requirements for assessors

Skills differ according to the focus of the particular standard. Competence is an explicit requirement of EN45011 and verified by UKAS during accreditation. Good schemes should prescribe criteria. Note 1 attached details the assessor competency criteria for these three schemes

Details as above - minimum level of qualifications, training and approval by witnessed audit. Technical review of all reports. Ongoing calibration sessions and witnessing of audits (minimum once every 2 years).

Skills differ according to the focus of the particular standard and. On farm, the commodity sector. Competence is an explicit requirement EN45011 and verified by UKAS during accreditation. Good schemes should prescribe criteria. Again, yes/no responses over simplify this point.

GLOBALG.A.P Inspectors and Auditors: i) Post-high school diploma/equivalent (min. course duration of 2 years in a related discipline; ii) HACCP training; iii) food hygiene training; iv) For crops: plant protection, IPM, and fertilizer training; for Livestock and Aquaculture: basic veterinary and stockmanship, and animal welfare training: for Feed manufacturing: Feed hygiene training and knowledge of national feed legislation; v) A min. of 2 years experience gained after finishing academic study and 3 years overall experience in the agricultural industry (in the specific scope); vi) completion of the GLOBALG.A.P online training and exam. GLOBALG.A.P Inspectors: i) One-day practical inspection course GLOBALG.A.P Auditors: i) Practical auditing experience of min. 10 days in management systems. ii) Successful completion of Lead Assessor training (37h)

Farm assessors are recruited because they have a good agricultural background. SFQC aims to take on assessors with at least 5 years recent agricultural experience and have a good general appreciation of cattle and sheep management. Ideally new assessors will also have a formal agricultural qualification. Assessors complete an intensive training programme covering QMS livestock scheme standards and related legislation, codes of practice, auditing skills etc. They are also given an overview of animal welfare assessment procedures and food hygiene issues. Assessors are not approved to assess farms until they have shadowed experienced assessors on their visits and then assessed a number of farms under the supervision of a senior farm assessor. Assessor performance is monitored through review of their assessment reports, regular performance evaluation by a senior assessor team. Assessors also attend two training sessions per year. All these measures help ensure that there is uniform assessment across the whole of the team throughout all parts of Scotland.

Training. Knowledge and skills with respect to methods and techniques aimed at the assessment of quality assurance systems. Audit skills. Audit experience. Work experience. Training and supplementary training, updating and maintaining professional expertise. Number of audits per year. Examinations.

The same as all base red tractor schemes, as the auditor must be approved to do all schemes on the farm

At present the approval of organic auditors is undertaken by the Defra organic branch, OF&G takes each auditor through a training programme of office visit, shadowed audits and witnessed audits and when happy we will apply to Defra for approval to allow the auditor to undertake audits of organic operations`

EFSIS hold quarterly training sessions which would include any relevant NACB issues

5 years relevant experience related to agriculture or 2 years relevant auditing experience. Degree/HND/SVQ Level 3 or equivalent in agricultural or related discipline. Have passed NPTC. Certificate of Competency PA1. Internal Training Course - covering Scheme Standards, legislation, assessment procedures and auditing. Assessment . Shadowing experienced auditors, participation in audits and/or participation on trial sites. Witnessed assessments before sign off of new auditors. CPD. Training meetings, shadow audits, site visits and localised meetings.

Knowledge of the industry with relevant experience & responsibility of deer stalking and carcase handling. Qualification in agriculture or related discipline. Auditing experience preferred. Relevant in house training. Minimum of annual training & performance reviews - more frequently if required. Assessor must keep a CPD training record.

All auditors are required to hold full membership of the Chartered Institute of Environmental Health, undertaken training as a Lead Assessor and have at least 5 years relevant experience. All auditors are required to complete the annual CPD of the CIEH for Chartered Status. Annual Assessment is undertaken of all auditors as well as designated auditor training days.

Formal Auditor Training. Competence assessment and personal certification. Audit experience. Continuous training.

As per Defra requirement and agreement between UK Organic Certifiers Group and Defra

Degree in Food or Bio Science or Diploma in Packaging. Successful completion of HACCP course (min 2 days) Successful completion of Lead Assessor Quality Management systems course - 4 days. Successful completion of 2 day BRC standards course on scheme. Minimum of 5 years relevant experience. Complete 5 audits against the BRC standard under supervision before sign off (3 for packaging and Storage/Distribution). Must complete a minimum of 5 audits per year against the BRC scheme to maintain registration (3 for packaging and Storage/Distribution). Auditors must maintain knowledge of legislation and technological developments

A food related University degree, 2 Years professional experience or 5 years auditing experience in the food processing industry. Minimum of 10 Audits. Qualified Training. Practical Experience

You need to ask the certification body this question

BSc or equivalent in Food Science/technology or biological science. Lead assessor/BRC Third party auditor trained. 5 years experience in manufacturing. HACCP qualification intermediate or better. Appropriate demonstrable experience working in or auditing at sites in the product category for which competency is granted. Attendance at assessors briefing meetings - held at least once a year. Attendance to webinars/conference calls. Record submitted of any CPD training undertaken.

Details vary by scheme (as appropriate to the scheme requirements) but all assessors must have relevant industry background and an auditing qualification. Assessors are trained and witnesses before approval and then subject to periodic training and annual witnessed assessments.

As the certifying bodies operate independently and are accredited by UKAS I'm not sure what the requirements of assessors/auditors is. They must be suitably qualified.

All auditors are educated to degree/diploma level in food bio-science discipline. All auditors are ISO 9000 lead assessors trained to an IRCA registered programme. All have recognised HACCP qualification. (Royal Institute of Public Health) The SAI Global audit team have all worked in the food industry for over 5 years, however most have extensive experience of over 15 years. This will give a wide ranging experience of HACCP and prerequisites in practice. All auditors attend web air or office based Technical Meetings for training purposes. All auditors must have experience and training relating to laws and regulations relevant to food safety

An appropriate assessor will be nominated by the Scheme Technical Manager(s). An experience matrix is available for this purpose.. Where there is any doubt regarding selection, e.g., with respect to level of expertise, selection will be referred to the Scheme Technical Director(s). Final approval of the Scheme Technical Manager(s) is by the authority of the Executive Board. The minimum requirements a Lion Egg assessor must have are: A minimum of HNC or equivalent in a relevant discipline e.g. agriculture, biological sciences or equivalent. Where a Higher education qualification is not attained the potential auditor will need to demonstrate significant experience in an aspect of the food industry attained through work experience. This will include auditing expertise in the food industry with a preferable emphasis on farm schemes or poultry schemes. An ability to demonstrate a basic understanding of HACCP and Hygiene, with a formal qualification/certificate. A minimum of 2 years relevant experience, such as egg industry/food industry experience and or farm experience. As a minimum have a formal qualification in internal auditing.

All assessors are specialist food industry auditors employed by SAI Global/EFSIS and receive comprehensive training in the conduct of Q Guild Audits. They carry out several accompanied audits prior to being signed off.

We use one auditor to do all our audits of sandwich businesses and that person is selected on the basis of specific knowledge of the sandwich industry as well as their technical knowledge. Our current auditor has worked in the industry and is a UKAS assessor. Any auditors we use would be expected to have a degree in food technology, microbiology or similar plus at least five years experience in a technical management role in either sandwich manufacturing or a related high care food production environment. They would generally be a trained lead auditor with at least 2 years experience. CPD updates through Campden BRI or similar bodies.

Knowledge of the industry with proven relevant experience & responsibility of Livestock Transport. Qualification in agriculture or related discipline. Auditing experience. Relevant in house training. An over 8 hours Driver Competency Certificate. LGV Cat E & C or HGV Class 1 licence. Minimum of annual training & performance reviews - more frequently if required. Assessor must keep a CPD training record.

All certified audit bodies are approved by Defra

Degree/HND/HNC or equivalent in agricultural (livestock) or veterinary related subject and three years experience or a minimum of 5 years experience of management of a beef and sheep unit or management/veterinary consultancy advice to beef and sheep farms. Training provided in-house for auditing and standards knowledge. Minimum of 4 visits accompanying experienced assessor and then 3 ±hadowqaudits by lead assessor required. At least 1 day CPD training per annum. On-line training programme being developed.

The requirements are specified in the scheme Appendix IIA and include: The five years full time work experience in a food chain related industry, shall be in the food manufacturing industry in the areas of processing, technology, raw materials and /or products; The two years of full time work in quality assurance or food safety functions shall be in the food manufacturing industry; The training in HACCP principles, hazard assessment and hazard analysis shall have a duration of at least 2 days/16 h. The total supervised training against this scheme shall include a successful completion of supervised training in practical assessment of this standard trough 10 audits or 15 audit days at a number of different organizations. a plan for continued training to keep the auditors up to date with the best practices and relevant regulatory and statutory developments in the sector(s) where they perform audits,

Requirements meet UKAS specifications for EN 45011 auditors. Assessor must have had a minimum of 3 years work experience within scope to be assessed and/or training within the scope of the scheme. Have had formal recognized HACCP training. Possess a formal qualification in agriculture, food or related biosciences. Possess NPTC farm inspection or lead assessor qualification. Demonstrable competency within the module of the standard to be assessed. Have evidence of, and undertake ongoing training as required.

	Number of	% of
	respondents	respondents
Is the frequency of assessments guided by a risk assessment? (For example, audits every 6 months if very high risk, every 12 months if high risk, every 24 months if medium risk and so forth)	11	31%
Is there a set frequency of assessment such as every 12 months?	32	89%
Frequency set at 12 months	23	64%
Other frequencies	12	33%

Table 23: Risk based assessment frequency

The other approaches were:

- Only minor NCs = 18 months. Major NCs = 12 months
- 12 months or 18 months according to commodity
- If non compliances found at assessment 12 month interval to next. If no non conformances found assessment is 18 months to next. Assessments can be more frequent if considered necessary
- Variable
- Minimum frequency 12 months. The following every 6 months: Sandwich production or fillings. Handling of both raw and cooked meat or meat products. Cook chill or

sous-vide production. Thermal processing low acid foods. Aseptic packaging low acid foods. Outstanding non-conformities.

- 18 months plus 3% are random
- Based on performance at previous audit more non conformances results in increased audit frequency. Audits 6 or 12 months
- Every 18 months to alternate between summer and winter inspections plus 10% of participants spot checked per year
- Pork/Sausage Two assessments are carried out per year. One of these is unannounced. Ham/Bacon three assessments are carried out per year and one is unannounced.
- Breeder rearer, breeder layer, pullet rearing, laying, feed mills, packing centres audited every 18 months. Hatcheries audited every 12 months. Additional unannounced audits of packing centres every 12 months
- Every 18 months
- 5 years.

Table 24: Unannounced and short notice assessments

	Unannounced	Short notice audits
No reply	6%	8%
None	50%	19%
Few (<20%)	33%	56%
Some (21% to 40%)	8%	8%
About half (41% to 59%)	0%	6%
Many (60% to 80%)	0%	3%
Most >80%	3%	0%

Table 25: Assessment process

	Number of respondents saying yes	% of respondents saying yes
Assessment of compliance against all aspects of the standard?	35	97%
Do assessments include:		
Visual inspection of cleanliness, plant layout, pest control etc?	36	100%
Observation of activities, such as storage of processed meats?	34	94%
Assessment of paperwork, such as record keeping?	36	100%
Assessment of the food safety knowledge of managers and staff?	28	78%
An assessment of official controllers reports e.g. Environmental Health Practitioners inspection reports or Official Veterinary reports.	19	53%
The use of checklists?	32	89%
A documented record of the results of each assessment?	36	100%
Is there a stated requirement for the assured business to	27	75%

	Number of respondents saying yes	% of respondents saying yes
notify the Approval Body of any enforcement action, prosecution or customer complaints about food safety, hygiene, animal health or welfare brought (or likely to be brought) against it?		
Do the Approval Bodies review the results of food samples (testing) or assessment of food sample test results completed by independent or for third parties? (Such as for a random sample of assured businesses.)	18	50%
Assessment duration should be determined by the size, scope and complexity of the food business	26	72%

Table 26: Responding to non-conformances

	Number of	% of
	respondents	respondents
	saying yes	saying yes
Is written guidance provided to Approval Bodies	28	78%
regarding the action to be taken for each type and		
severity of non-compliance?		
Does the guidance on responding to non compliance include	de the following:	
Grading of non-compliance, such as minor versus major.	34	94%
Definitions and examples of what constitute minor and	34	94%
major non-compliances.		
Indication of which parts of the standard are % ey+.	26	72%
where a major non-compliance may result in suspension		
of approval.		
The timescale within which corrective action is needed.	35	97%
A statement that approval will be with held or withdrawn if	35	97%
a major non-compliance is not corrected within the		
required time period.		
Please briefly state the criteria for not approving a business	s:	
Re-visit by the assessor.	35	97%
Documentary evidence. (Such as photogs provided by the	32	89%
business)		
Third party letter. (Such as from a veterinarian.)	20	56%
The timescale within which corrective action is needed for	31	86%
minor and major non-compliances, such as 3 months to		
prove corrective action has been taken.		
Is there a stated process for the assured business to	35	97%
appeal against the revocation of their approved status,		
stated within scheme procedures?		

	Number of	% of
	respondents	respondents
	saying yes	saying yes
Is there a procedure for notifying local authorities or other	11	31%
relevant enforcement bodies which business have been		
approved, such as a sharing a list every 3 months?		
Is there an agreed (with LACORS for example) procedure	5	14%
for regularly communicating with local authorities or other		
relevant enforcement bodies that a business has lost		
their approval due to non-compliance?		
Do you know of current examples of local authorities or	13	36%
other food safety/hygiene regulators recognising the		
assured status of organisations (in your scheme) when		
deciding on the frequency of their inspections of food		
businesses? I.e. reducing the frequency of inspection for		
approved businesses.		
Have you had the impact of your scheme on performance	15	42%
been evaluated? Such as a review of product safety		
recall rates, rates of non-compliance, assessment scores.		
Is there an effective process for communicating alerts		
about food safety and hygiene problems to assessors,		
regulators and businesses?	14	39%
Do Assessors advise the relevant regulatory body (e.g.		
local authority) in the event of serious non-conformances		
representing an imminent risk to public or animal health		
that has not already been rectified by the assessed		
business?	10	28%

Table 27: Communicating with local authorities and other enforcement bodies

9.5 Important Criteria not fully satisfied

The following tables present the evaluation of the extent to which each scheme fulfilled the Essential and Important criteria based on the responses from schemes to the questionnaire, the researchersgreview of the standard and examination of scheme websites.

In some cases there are gaps in the ratings due to lack of information. These are shown as blanks in the table.

Some of the criteria have been abbreviated.

The Essential criteria are highlighted in Grey rows and Bold text.

Table 28: Evaluation of fulfilment of each criteria (0 = does not address criteria, 1 = partly fulfilled, 2 = totally fulfils criteria, 3 = exceeds criteria) – Previously recognised schemes

Scheme name	FAWL	QMS	Genesis QA	Red Tractor	NIBLFQAS
The standard should be developed by a £tandard Setting Bodyqwith demonstrable expertise, experience and professional standing in the sector to which the standard relates e.g. trade associations and include input from stakeholders.	2	2	1	2	2
Standard development and maintenance should not be funded directly by individual food businesses or their customers.	0	1	0	2	0
The standard setting body should adopt a hazard based approach to setting standards, drawing on HACCP or an equivalent risk assessment process that identifies food safety hazards and controls.	0	2		2	1
The standard setting body should have consumer representation, such as consumer organisations or individual members of the public, within the standard setting process.	2	1		2	2
The Standards Setting and/or Approval Bodies should collect information that enables it to assure that the standards are achieving acceptable standards of food safety and hygiene	2	2	2	2	2
The Standards Setting Body should collect and review data at least annually regarding food safety and hygiene standards being achieved by assured businesses. This may be, for example, trends in assessments scores, frequency of product recalls and trends in results of food surveillance/samples.	2	2		2	2
Feedback is sought from Assurance Scheme stakeholders to identify potential changes to the standard and associated approval processes.	2	2	1	2	2
The need for amending approval requirements and processes should be reviewed at least annually.	2	2		2	2
The standard should be subject to regular review to ensure currency with legislation.	2	2		2	2
There should be procedures in place governing the use of any logos to limit use to those food businesses with current æpprovedqstatus, such as a licensing scheme.	2	2		2	2
The Standard Setting Body and/or Approval Bodies should be required to monitor the use of logos and take appropriate action when necessary.	2	1		2	0
Has UKAS (or equivalent organisations in other countries) accredited any Approval Bodies in respect of this standard?	2	2	2	2	2
The Standard Setting Body should be independent of the organisation(s) undertaking assessment and awarding approval or have independent oversight of its standards setting.	2	2	2	2	2
The governing board should represent the full range of stakeholders. (Approved businesses, business clients of approved businesses, consumers, regulators, approval bodies and welfare interests).	2	2		2	2
The standards setting committee should have an independent chair, such as an expert.	2	2		2	2
The standard and associated assurance scheme should be fully accessible to food businesses seeking approval.	2	1	2	2	2
Standards Setting Bodies (or approval bodies) should publicly report (on websites) aggregated key performance indicators such as the frequency of assessments and rates of non-conformance.	0	0	0	1	2
The standard should state and describe the range of activities covered by the standard.	2	2	2	3	2

Scheme name	FAWL	QMS	Genesis QA	Red Tractor	NIBLFQAS
The standard should incorporate legislative requirements and those from industry Codes of Practice as a minimum.	3	2	2	2	2
Animal health and welfare requirements should be included where appropriate (primary producers, distribution and abattoirs) and also be based on (as a minimum) a recognised code of practice and legislative requirements.	3	2	2	2	2
Food safety and hygiene standards should be compulsory along with animal health and welfare in the case of producers, animal transport and abattoirs.	3	2	2	2	2
The approved business should be required to notify the Approval Body of any major complaints or enforcement about food safety/hygiene brought or pending against it with respect to any issues covered in the Standards.	2	2	2	2	2
The Approval bodies should be independent of the standard setting body and of the assured businesses.	2	2	2	2	1
Approval Bodies should be self-funding.	1	2	2	2	2
Criteria for the selection of assessors should be defined and should cover: Minimum professional and/or vocational qualifications, such as a relevant degree or NVQ level 4 in agriculture or food technology, An appropriate minimum level of relevant experience in food safety and hygiene; Independent from the business being assessed; Competence requirements	1	1		1	1
Approval Bodies should have procedures in place for: Initial approval of assessors, such as requiring satisfactory conduct of a minimum number of assessments shadowed by an assessment manager; Routine evaluation of assessor performance, such as shadowing one assessment per year; Requirement for minimum level of Continuing Professional Development, such as 5 days of relevant training each year; Requirement for minimum numbers of assessment to be undertaken per annum, such as 5 per year.	2	2		1	2
The frequency of assessment should be risk based.	0	0		0	0
The inspection process should include an appropriate number of short notice (e.g. three days) assessments and possibly unannounced re-visits in the event of verifying correction of major non-conformances.	0	2	0	2	0
Assessment duration should be determined by the size, scope and complexity of the food business	2	2		2	2
Each assessment should, as a minimum, incorporate the legislatively required elements of the standard.	2	2	2	2	2
The assessment process should include: Visual inspection of sites; Observation of operations/activities; Use of questioning techniques to evaluate management and staff knowledge; Examination of records.	2	2		2	2
The assessment should be supported by a standard checklist or similar aid that covers pertinent food safety and hygiene requirements.	2	2		2	2
All Assessors should keep a comprehensive record of assessment findings. This should include, as a minimum; Date of assessment; Name of assessor undertaking the assessment; Scope of the assessment; Non-conformities identified and categorisation; Timescales required for correction of non-conformances	2	2	3	2	2

Scheme name	FAWL	QMS	Genesis QA	Red Tractor	NIBLFQAS
The decision to approve a food business should be made: By a suitably qualified and experienced individual employed within the Approval Body; Based on the availability of satisfactory evidence of rectification of non-conformities relating to significant food safety, hygiene, animal health or animal welfare.	2	2	2	2	2
Guidance should be provided to Approval Bodies regarding the action to be taken for each type and severity of non-conformance (where severity relates to the risk posed to health of the non-conformance).	2	2	2	2	2
There should be guidance on what evidence is required by the assessor for verifying that a non-conformance has been corrected.	2	1		2	2
The non conformance and verification of correction of the non-conformance should be recorded by the assessor.	2	2	2	2	2
The business should have the right to appeal in the event of a failure to gain or maintain approved status.	2	2	2	2	2
The Approval Body should have a documented and published process for appeals made by businesses.	2	2		2	0
There should be an effective process for communicating alerts about food safety and hygiene problems to assessors, regulators and businesses?	2	0		2	2
Assessors should advise the relevant regulatory body (e.g. local authority) in the event of serious non- conformances representing an imminent risk to public or animal health that has not already been rectified by the assessed business.	0	0		2	2
Approval Bodies or the Standards Setting Body should have a procedure (developed by agreement between these bodies and the regulator(s)) for communicating with local authorities or other relevant enforcement bodies that a business has been suspended or removed from the scheme (due to non-conformance) should be in place.	0	2		2	0
There should be a system in place to notify local authorities and other relevant enforcement organisations of the approved status of businesses.	1	2		1	2
The Standard Setting Body should ensure that information about the Assurance Scheme is made publicly available to allow access to interested parties, such as (on a website) regarding: The products covered by the scheme; \tilde{o} \tilde{o}	2	2	2	2	2
The logo (if used) should have a clear consumer message and if one logo covers more than one scheme whether standards are comparable, and state where can consumers find further information.	0	1	0	2	2
There should be a means by which consumers and other interested and affected parties are invited and enabled to provide feedback on the scheme.	1	1	2	1	1

Table 29: Evaluation of fulfilment of each criteria (0 = does not address criteria, 1 = partly fulfilled, 2 = totally fulfils criteria, 3 = exceeds criteria) – Feed and related schemes

Scheme name	UFAS, TASCC & FEMAS	GMP+ FAS	GAFTA	Assured Land Based-Mobile seed Processing	Assured Land Based-Mobile Feed Mixing & Processing	Assured Land Based- Agricultural Operations	FAMI-QS European	Biofertiliser Certification Scheme
The standard should be developed by a £tandard Setting Bodyqwith demonstrable expertise, experience and professional standing in the sector to which the standard relates e.g. trade associations and include input from stakeholders.	2	2	2	2	2	2	2	2
Standard development and maintenance should not be funded directly by individual food businesses or their customers.	0	2	2					2
The standard setting body should adopt a hazard based approach to setting standards, drawing on HACCP or an equivalent risk assessment process that identifies food safety hazards and controls.	2	2	2	0	2	0	2	2
The standard setting body should have consumer representation, such as consumer organisations or individual members of the public, within the standard setting process.	1	1	1	2	2	2		1
The Standards Setting and/or Approval Bodies should collect information that enables it to assure that the standards are achieving acceptable standards of food safety and hygiene	2	2	2	0		0		
The Standards Setting Body should collect and review data at least annually regarding food safety and hygiene standards being achieved by assured businesses. This may be, for example, trends in assessments scores, frequency of product recalls and trends in results of food surveillance/samples.	2	2	2	0		0	2	
Feedback is sought from Assurance Scheme stakeholders to identify potential changes to the standard and associated approval processes.	2	2	2	2	2	2		2
The need for amending approval requirements and processes should be reviewed at least annually.	2	2	2	2	2	2		2
The standard should be subject to regular review to	2	2	2	2	2	2	1	2

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Scheme name	UFAS, TASCC & FEMAS	GMP+ FAS	GAFTA	Assured Land Based-Mobile seed Processing	Assured Land Based-Mobile Feed Mixing & Processing	Assured Land Based- Agricultural Operations	FAMI-QS European	Biofertiliser Certification Scheme
ensure currency with legislation.								
There should be procedures in place governing the use of any logos to limit use to those food businesses with current ±approvedqstatus, such as a licensing scheme.	2	2	2	2	2	2	2	2
The Standard Setting Body and/or Approval Bodies should be required to monitor the use of logos and take appropriate action when necessary.	0	2	2	0	0	0		3
Has UKAS (or equivalent organisations in other countries) accredited any Approval Bodies in respect of this standard?	3	2	2	2	2	2		1
The Standard Setting Body should be independent of the organisation(s) undertaking assessment and awarding approval or have independent oversight of its standards setting.	2	2	2	2	2	2	2	2
The governing board should represent the full range of stakeholders. (Approved businesses, business clients of approved businesses, consumers, regulators, approval bodies and welfare interests).	1	2	1	2	2	2		2
The standards setting committee should have an independent chair, such as an expert.	2	2	0	2	2	2	1	2
The standard and associated assurance scheme should be fully accessible to food businesses seeking approval.	3	2	2	2	2	2	2	2
Standards Setting Bodies (or approval bodies) should publicly report (on websites) aggregated key performance indicators such as the frequency of assessments and rates of non-conformance.	0	1	0	0	0	0	2	0
The standard should state and describe the range of activities covered by the standard.	2	2	2	2	2	2	2	1
The standard should incorporate legislative requirements and those from industry Codes of Practice as a minimum.	3	2	2	1	2	2	2	1
Animal health and welfare requirements should be included where appropriate (primary producers, distribution and abattoirs) and also be based on								2

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Scheme name	UFAS, TASCC & FEMAS	GMP+ FAS	GAFTA	Assured Land Based-Mobile seed Processing	Assured Land Based-Mobile Feed Mixing & Processing	Assured Land Based- Agricultural Operations	FAMI-QS European	Biofertiliser Certification Scheme
(as a minimum) a recognised code of practice and legislative requirements.								
Food safety and hygiene standards should be compulsory along with animal health and welfare in the case of producers, animal transport and abattoirs.	2	2	1				2	2
The approved business should be required to notify the Approval Body of any major complaints or enforcement about food safety/hygiene brought or pending against it with respect to any issues covered in the Standards.	2	1	2	0	0	0		2
The Approval bodies should be independent of the standard setting body and of the assured businesses.	2	2	2	2	2	2	2	2
Approval Bodies should be self-funding.		2	2				2	
Criteria for the selection of assessors should be defined and should cover: Minimum professional and/or vocational qualifications, such as a relevant degree or NVQ level 4 in agriculture or food technology, An appropriate minimum level of relevant experience in food safety and hygiene; Independent from the business being assessed; Competence requirements	2	2	2	2	2	2		2
Approval Bodies should have procedures in place for: Initial approval of assessors, such as requiring satisfactory conduct of a minimum number of assessments shadowed by an assessment manager;	2	2	2					
The frequency of assessment should be risk based.	0	0	0	0	0	0	2	0
The inspection process should include an appropriate number of short notice (e.g. three days) assessments and possibly unannounced re- visits in the event of verifying correction of major non-conformances.	2	1	1	2	2	2		1
Assessment duration should be determined by the size, scope and complexity of the food business	2	2	2				2	

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Scheme name	UFAS, TASCC & FEMAS	GMP+ FAS	GAFTA	Assured Land Based-Mobile seed Processing	Assured Land Based-Mobile Feed Mixing & Processing	Assured Land Based- Agricultural Operations	FAMI-QS European	Biofertiliser Certification Scheme
Each assessment should, as a minimum, incorporate the legislatively required elements of the standard.	2	2	2				2	0
The assessment process should include: Visual inspection of sites; Observation of operations/activities; Use of questioning techniques to evaluate management and staff knowledge; Examination of records.	2	2	2	2	1	1	3	2
The assessment should be supported by a standard checklist or similar aid that covers pertinent food safety and hygiene requirements.	2	2	2	2	2	2		2
All Assessors should keep a comprehensive record of assessment findings. This should include, as a minimum; Date of assessment;	2	2	2	1	2	2		2
The decision to approve a food business should be made: By a suitably qualified and experienced individual employed within the Approval Body; 	2	2	2	2	2	2		2
Guidance should be provided to Approval Bodies regarding the action to be taken for each type and severity of non-conformance (where severity relates to the risk posed to health of the non- conformance).		2	0	0	0	0		2
There should be guidance on what evidence is required by the assessor for verifying that a non-conformance has been corrected.	3	2	2	2	2	2	1	2
The non conformance and verification of correction of the non-conformance should be recorded by the assessor.	2	2	2	2	2	2	2	2
The business should have the right to appeal in the event of a failure to gain or maintain approved status.	2	2	2	2	2	2	2	2
The Approval Body should have a documented and published process for appeals made by businesses.	0	2	2	2	2	2	2	3
There should be an effective process for communicating alerts about food safety and hygiene problems to assessors, regulators and businesses?		2	2				3	

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Scheme name	UFAS, TASCC & FEMAS	GMP+ FAS	GAFTA	Assured Land Based-Mobile seed Processing	Assured Land Based-Mobile Feed Mixing & Processing	Assured Land Based- Agricultural Operations	FAMI-QS European	Biofertiliser Certification Scheme
Assessors should advise the relevant regulatory body (e.g. local authority) in the event of serious non- conformances representing an imminent risk to public or animal health that has not already been rectified by the assessed business.	0	1	0	0	0	0		0
Approval Bodies or the Standards Setting Body should have a procedure for communicating with local authorities or other relevant enforcement bodies that a business has been suspended or removed from the scheme (due to non-conformance) õ	2	1	0	0	0	0		
There should be a system in place to notify local authorities and other relevant enforcement organisations of the approved status of businesses.	0	2	0	0	0	0	2	0
The Standard Setting Body should ensure that information about the Assurance Scheme is made publicly available to allow access to interested parties, such as (on a website) regarding: The products covered by the scheme; õ	2	2	2	1	1	1	2	2
The logo (if used) should have a clear consumer message and if one logo covers more than one scheme whether standards are comparable, and state where can consumers find further information.	2	2	3	2	1	1	2	2
There should be a means by which consumers and other interested and affected parties are invited and enabled to provide feedback on the scheme.	1	1	1	1	1	1	1	1

Table 30: Evaluation of fulfilment of each criteria (0 = does not address criteria, 1 = partly fulfilled, 2 = totally fulfils criteria, 3 = exceeds criteria) – Generic schemes

Scheme name	NSF-Cmi Due Diligence Standard - Food	FS22000	BRC Global Standard Food Safety	Synergy 22000	IFS	ISO 22000	STS	SALSA
The standard should be developed by a £tandard Setting Bodyqwith demonstrable expertise, experience and professional standing in the sector to which the standard relates e.g. trade associations and include input from stakeholders.	2	2	2	2	2	2	2	2
Standard development and maintenance should not be funded directly by individual food businesses or their customers.	2	2	2	2	2	2	0	0
The standard setting body should adopt a hazard based approach to setting standards, drawing on HACCP or an equivalent risk assessment process that identifies food safety hazards and controls.	2	2	2	2	2	3	2	2
The standard setting body should have consumer representation, such as consumer organisations or individual members of the public, within the standard setting process.	0	2	1	2	1	2	1	1
The Standards Setting and/or Approval Bodies should collect information that enables it to assure that the standards are achieving acceptable standards of food safety and hygiene	0	2	2	2	2	0	2	2
The Standards Setting Body should collect and review data at least annually regarding food safety and hygiene standards being achieved by assured businesses. This may be, for example, trends in assessments scores, frequency of product recalls and trends in results of food surveillance/samples.	0	2	2	2	2	0	2	2
Feedback is sought from Assurance Scheme stakeholders to identify potential changes to the standard and associated approval processes.	0	2	2	2	2	2	2	2
The need for amending approval requirements and processes should be reviewed at least annually.	2	2	2	2	2	2	2	2
The standard should be subject to regular review to ensure currency with legislation.	2	2	2	2	2	2	2	2
There should be procedures in place governing the use of any logos to limit use to those food businesses with current approved status, such as a licensing scheme.		2	2	2	2	2	2	2
The Standard Setting Body and/or Approval Bodies should be required to monitor the use of logos and take appropriate action when necessary.		2	1	2	2	2	2	2
Has UKAS (or equivalent organisations in other countries) accredited any Approval Bodies in respect of this standard?		2	2	2	2	2	2	0

				•				
Scheme name	NSF-Cmi Due	FS22000	BRC	Synergy	IFS		STS	SALSA
	Diligence		Global	22000		22000		
	Standard -		Standard					
	Food		Food					
			Safety					
The Standard Setting Body should be independent of the organisation(s)	0	2	1	2	2	2	0	2
undertaking assessment and awarding approval or have independent oversight of								
its standards setting.								
The governing board should represent the full range of stakeholders. (Approved	0	2	1	2	2	2	1	1
businesses, business clients of approved businesses, consumers, regulators,								
approval bodies and welfare interests).								
The standards setting committee should have an independent chair, such as an	0	2	2	2	2	2	2	2
expert.								
The standard and associated assurance scheme should be fully accessible to	2	2	2	2	2	2	2	2
food businesses seeking approval.								
Standards Setting Bodies (or approval bodies) should publicly report (on		0	0	0	1	1	1	1
websites) aggregated key performance indicators such as the frequency of								
assessments and rates of non-conformance.								
The standard should state and describe the range of activities covered by the	1	2	2	2	2	2	2	2
standard.								
The standard should incorporate legislative requirements and those from	3	3	3	3	3	1	3	3
industry Codes of Practice as a minimum.								
Animal health and welfare requirements should be included where		0		2		0		
appropriate (primary producers, distribution and abattoirs) and also be								
based on (as a minimum) a recognised code of practice and legislative								
requirements.								
Food safety and hygiene standards should be compulsory along with animal	2	1	1	2	2	1	1	2
health and welfare in the case of producers, animal transport and abattoirs.								
The approved business should be required to notify the Approval Body of any	0	0	1	2	2	2	2	2
major complaints or enforcement about food safety/hygiene brought or pending								
against it with respect to any issues covered in the Standards.								
The Approval bodies should be independent of the standard setting body and of	0	2	1	2	2	1	0	2
the assured businesses.								
Approval Bodies should be self-funding.	2	2	2	2	2	2	2	2
Criteria for the selection of assessors should be defined and should cover:	2	2	2	2	2	2	2	2
Minimum professional and/or vocational qualifications, such as a relevant								
degree or NVQ level 4 in agriculture or food technology, An appropriate								
minimum level of relevant experience in food safety and hygiene;								
Independent from the business being assessed; Competence requirements								
Approval Bodies should have procedures in place for: Initial approval of	1	2	2	2	2	2	2	2

Diligence Standard - FoodGlobal Standard - Food220002200022000assessors, such as requiring satisfactory conduct of a minimum number of assessments should ber sk based.101000The frequency of assessment should be risk based.10100000The inspection process should include an appropriate number of short notice (e.g. three days) assessments and possibly unanounced re-visits in the event of verifying correction of major non-conformances.10100000Assessment should be determined by the size, scope and complexity of the food business22				550		1=0	10.0	070	
Standard - FoodStandard - FoodStandard - FoodStandard - Foodassessors, such as requiring satisfactory conduct of a minimum number of assessment shadowed by an assessment manager;1100 </td <td>Scheme name</td> <td>NSF-Cmi Due</td> <td>FS22000</td> <td>BRC</td> <td>Synergy</td> <td>IFS</td> <td></td> <td>SIS</td> <td>SALSA</td>	Scheme name	NSF-Cmi Due	FS22000	BRC	Synergy	IFS		SIS	SALSA
FoodFood SafetyFood Safetyassessors, such as requiring satisfactory conduct of a minimum number of assessments should be risk based.1010000The frequency of assessment should be risk based.101020111 <td></td> <td></td> <td></td> <td></td> <td>22000</td> <td></td> <td>22000</td> <td></td> <td></td>					22000		22000		
SafetySafetyassessments shadowed by an assessment manager;101000The frequency of assessment should be risk based.1010000The inspection process should include an appropriate number of short10102011The inspection process should neurod an appropriate number of short10102011the event of verifying correction of major non-conformances.222									
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the event of verifying correction of major non-conformances. v v v Assessment duration should be determined by the size, scope and complexity of the food business 2	The inspection process should include an appropriate number of short	1	0	1	0	2	0	1	1
the event of verifying correction of major non-conformances. v v v Assessment duration should be determined by the size, scope and complexity of the food business 2									
Assessment duration should be determined by the size, scope and complexity of the food business222 <th2< th="">222<!--</td--><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th2<>									
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evaluate management and staff knowledge; Examination of records.Image of the subsection of the cords.Image of the subsection of the cords.Image of the cord	The assessment process should include: Visual inspection of sites;	2	2	2	2	2	2	2	2
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that covers pertinent food safety and hygiene requirements.Image: Constraint of the constraint	evaluate management and staff knowledge; Examination of records.								
All Assessors should keep a comprehensive record of assessment findings. This should include, as a minimum; Date of assessment;22 <th2< th="">22<td>The assessment should be supported by a standard checklist or similar aid</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td></th2<>	The assessment should be supported by a standard checklist or similar aid	2	2	2	2	2	0	2	2
This should include, as a minimum; Date of assessment;Image: Constraint of the constraint	that covers pertinent food safety and hygiene requirements.								
The decision to approve a food business should be made: By a suitably qualified and experienced individual employed within the Approval Body; 222<	All Assessors should keep a comprehensive record of assessment findings.	2	2	2	2	2	2	2	2
qualified and experienced individual employed within the Approval Body; Image: Constraint of the constra	This should include, as a minimum; Date of assessment;								
Guidance should be provided to Approval Bodies regarding the action to be taken for each type and severity of non-conformance (where severity relates to the risk posed to health of the non-conformance).222220222There should be guidance on what evidence is required by the assessor for verifying that a non-conformance has been corrected.21211112The non conformance has been corrected.22211111	The decision to approve a food business should be made: By a suitably	2	2	2	2	3	2	2	2
Guidance should be provided to Approval Bodies regarding the action to be taken for each type and severity of non-conformance (where severity relates to the risk posed to health of the non-conformance).22222022There should be guidance on what evidence is required by the assessor for verifying that a non-conformance has been corrected.21211112The non conformance and verification of correction of the non-conformance should be recorded by the assessor.2211111111<	qualified and experienced individual employed within the Approval Body;								
taken for each type and severity of non-conformance (where severity relates to the risk posed to health of the non-conformance).Image: Conference of the conference									
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There should be guidance on what evidence is required by the assessor for verifying that a non-conformance has been corrected.21221112The non conformance and verification of correction of the non-conformance should be recorded by the assessor.22	taken for each type and severity of non-conformance (where severity relates								
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should be recorded by the assessor.Image: constraint of a set of a s									
The business should have the right to appeal in the event of a failure to gain or maintain approved status.22111 <th1< th="">111111</th1<>	The non conformance and verification of correction of the non-conformance	2	2	2	2	2	2	2	2
maintain approved status.Image: Construction of the status of	should be recorded by the assessor.								
maintain approved status.Image: Constraint of the approval Body should have a documented and published process for appeals made by businesses.Image: Constraint of the appeal	The business should have the right to appeal in the event of a failure to gain or	2	2	2	2	2	2	2	2
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appeals made by businesses.Image: constraint of the should be an effective process for communicating alerts about food safety and hygiene problems to assessors, regulators and businesses?2210022Assessors should advise the relevant regulatory body (e.g. local authority) in the0200020	The Approval Body should have a documented and published process for	2	1	2	2	2	0	2	1
There should be an effective process for communicating alerts about food safety and hygiene problems to assessors, regulators and businesses?2210022Assessors should advise the relevant regulatory body (e.g. local authority) in the0200020									
and hygiene problems to assessors, regulators and businesses?020020Assessors should advise the relevant regulatory body (e.g. local authority) in the0200020		2	2	1	0		0	2	2
Assessors should advise the relevant regulatory body (e.g. local authority) in the 0 2 0 0 0 2 0									
		0	2	0	0		0	2	0
	event of serious non-conformances representing an imminent risk to public or			_					

Scheme name	NSF-Cmi Due Diligence Standard - Food	FS22000	BRC Global Standard Food Safety	Synergy 22000	IFS	ISO 22000	STS	SALSA
animal health that has not already been rectified by the assessed business.								
Approval Bodies or the Standards Setting Body should have a procedure for communicating with local authorities or other relevant enforcement bodies that a business has been suspended or removed from the scheme (due to non-conformance) \tilde{o}	0	0	0	0	0	0	0	0
There should be a system in place to notify local authorities and other relevant enforcement organisations of the approved status of businesses.	0	0	0	0	1	0	0	0
The Standard Setting Body should ensure that information about the Assurance Scheme is made publicly available to allow access to interested parties, such as (on a website) regarding: The products covered by the scheme; õ	0	2	2	2	2	2	2	2
The logo (if used) should have a clear consumer message and if one logo covers more than one scheme whether standards are comparable, and state where can consumers find further information.		1	2	0	1	0	0	2
There should be a means by which consumers and other interested and affected parties are invited and enabled to provide feedback on the scheme.	1	1	1	2	2	0	1	2

Table 31: Evaluation of fulfilment of each criteria (0 = does not address criteria, 1 = partly fulfilled, 2 = totally fulfils criteria, 3 = exceeds criteria) – Product specific schemes

Scheme name	NACB	Scottish Quality Farm Assured Combinable Crops	GLOBALG.A.P Integrated Farm Assurance	BMPA	Assured UK Malt	Scottish Quality Wild Venison	BAP	British Lion Quality eggs	British Sandwich Association	Q Guild	EBLEX
The standard should be developed by a	2	2	2	2	2	2	2	2	0	2	2
Standard development and maintenance should not be funded directly by individual food businesses or their customers.	0	0		2	2	0	0	1	0	0	0
The standard setting body should adopt a hazard based approach to setting standards, drawing on HACCP or an equivalent risk assessment process that identifies food safety hazards and controls.	2	2	2	2	2	2	2	2	2	2	2
The standard setting body should have consumer representation, such as consumer organisations or individual members of the public, within the standard setting process.	0	1	1	1	1	1	1	2	1	1	1
The Standards Setting and/or Approval Bodies should collect information that enables it to assure that the standards are achieving acceptable standards of food safety and hygiene	0	2	2	2	0	2	2	2	2	2	2
The Standards Setting Body should collect and review data at least annually regarding food safety and hygiene standards being achieved by assured businesses. This may be, for example, trends in assessments scores, frequency of product recalls and trends in results of food	0	2	2	2	0	2	2	2	2	2	2

CR2435

Scheme name	NACB	Scottish Quality Farm Assured Combinable Crops	GLOBALG.A.P Integrated Farm Assurance	BMPA	Assured UK Malt	Scottish Quality Wild Venison	BAP	British Lion Quality eggs	British Sandwich Association	Q Guild	EBLEX
surveillance/samples.											
Feedback is sought from Assurance Scheme stakeholders to identify potential changes to the standard and associated approval processes.	2	2	2	2	2	2	2	2	2	2	2
The need for amending approval requirements and processes should be reviewed at least annually.	2	2	2	2	2	2	2	2	2	2	2
The standard should be subject to regular review to ensure currency with legislation.	2	2	2	2	2	2	2	2	2	2	2
There should be procedures in place governing the use of any logos to limit use to those food businesses with current £pprovedqstatus, such as a licensing scheme.	2	2		2	2	2	2	2	2	2	2
The Standard Setting Body and/or Approval Bodies should be required to monitor the use of logos and take appropriate action when necessary.	2	2	2	2	0	0	2	2	2	1	2
Has UKAS (or equivalent organisations in other countries) accredited any Approval Bodies in respect of this standard?	2	2	2	2	2	2	2	2		0	2
The Standard Setting Body should be independent of the organisation(s) undertaking assessment and awarding approval or have independent oversight of its standards setting.	2	0	2	2	2	2	2	2	0	2	2
The governing board should represent the full range of stakeholders. (Approved businesses, business clients of approved businesses, consumers, regulators, approval bodies and welfare interests).	0	1	1	0	1	1	2	2	1	1	1
The standards setting committee should have an independent chair, such as an expert.	2	2		2	0	2	2	2	2	0	0

CR2435

Scheme name	NACB	Scottish Quality Farm Assured Combinable Crops	GLOBALG.A.P Integrated Farm Assurance	BMPA	Assured UK Malt	Scottish Quality Wild Venison	BAP	British Lion Quality eggs	British Sandwich Association	Q Guild	EBLEX
The standard and associated assurance scheme should be fully accessible to food businesses seeking approval.	2	2	2	2	2	2	2	2	2	2	2
Standards Setting Bodies (or approval bodies) should publicly report (on websites) aggregated key performance indicators such as the frequency of assessments and rates of non- conformance.	0	1	0	0	0	0	0	0	0	0	0
The standard should state and describe the range of activities covered by the standard.	2	2	2	2	2	2	3	2	2	1	3
The standard should incorporate legislative requirements and those from industry Codes of Practice as a minimum.	3	2	2	2	3	2	2	2	3	2	1
Animal health and welfare requirements should be included where appropriate (primary producers, distribution and abattoirs) and also be based on (as a minimum) a recognised code of practice and legislative requirements.			0	2		2	2	2			2
Food safety and hygiene standards should be compulsory along with animal health and welfare in the case of producers, animal transport and abattoirs.	2	1	2	2	2	2	2	2	2	2	2
The approved business should be required to notify the Approval Body of any major complaints or enforcement about food safety/hygiene brought or pending against it with respect to any issues covered in the Standards.	2	2	2	2	0	2	2	2	2	2	2
The Approval bodies should be independent of the standard setting body and of the assured businesses.	2	0	2	2	2	2	2	2	1	2	2

CR2435

Scheme name	NACB	Scottish Quality Farm Assured Combinable Crops	GLOBALG.A.P Integrated Farm Assurance	BMPA	Assured UK Malt	Scottish Quality Wild Venison	BAP	British Lion Quality eggs	British Sandwich Association	Q Guild	EBLEX
Approval Bodies should be self-funding.	2	2	2	2	2	2	2	2	2	2	2
Criteria for the selection of assessors should be defined and should cover: Minimum professional and/or vocational qualifications, such as a relevant degree or NVQ level 4 in agriculture or food technology, An appropriate minimum level of relevant experience in food safety and hygiene; Independent from the business being assessed; Competence requirements	2	1	2	2	2	1	2	1	2	1	1
Approval Bodies should have procedures in place for: Initial approval of assessors, such as requiring satisfactory conduct of a minimum number of assessments shadowed by an assessment manager;	1	1	1	2	2	2	1	2	2	2	2
The frequency of assessment should be risk based.	0	0	0	0	0	1	0	1	0	0	0
The inspection process should include an appropriate number of short notice (e.g. three days) assessments and possibly unannounced re-visits in the event of verifying correction of major non-conformances.	0	1	1	1	0	1	2	2	1	2	3
Assessment duration should be determined by the size, scope and complexity of the food business	2	2	2	0	2	2	2	2		0	2
Each assessment should, as a minimum, incorporate the legislatively required elements of the standard.	2	2	2	2	2	2	2	2	2	2	2
The assessment process should include: Visual inspection of sites; Observation of operations/activities; Use of questioning techniques to	2	2	2	2	2	2	2	2	2	2	1

CR2435

Scheme name	NACB	Scottish Quality Farm Assured Combinable Crops	GLOBALG.A.P Integrated Farm Assurance	BMPA	Assured UK Malt	Scottish Quality Wild Venison	BAP	British Lion Quality eggs	British Sandwich Association	Q Guild	EBLEX
evaluate management and staff knowledge; Examination of records.											
The assessment should be supported by a standard checklist or similar aid that covers pertinent food safety and hygiene requirements.	2	2	2	2	2	2	2	2	0	2	2
All Assessors should keep a comprehensive record of assessment findings. This should include, as a minimum; Date of assessment;	2	2	2	2	2	2	2	2	2	2	2
The decision to approve a food business should be made: By a suitably qualified and experienced individual employed within the Approval Body;	2	1	2	2	2	2	2	2	2	2	2
Guidance should be provided to Approval Bodies regarding the action to be taken for each type and severity of non-conformance (where severity relates to the risk posed to health of the non-conformance).	2	2	2	0	2	2	2	2	2	0	2
There should be guidance on what evidence is required by the assessor for verifying that a non-conformance has been corrected.	2	2	2	2	2	2	2	1	1	2	2
The non conformance and verification of correction of the non-conformance should be recorded by the assessor.	2	2	2	2	2	2	2	2	2	2	2
The business should have the right to appeal in the event of a failure to gain or maintain approved status.	2	2	2	2	2	2	2	2	2	2	2
The Approval Body should have a documented and published process for appeals made by businesses.	2	2	2	0	2	0	2	0	0	0	2
There should be an effective process for communicating alerts about food safety and hygiene problems to assessors,		2	1		1	2	2	2	2		0

CR2435

Scheme name	NACB	Scottish Quality Farm Assured Combinable Crops	GLOBALG.A.P Integrated Farm Assurance	BMPA	Assured UK Malt	Scottish Quality Wild Venison	BAP	British Lion Quality eggs	British Sandwich Association	Q Guild	EBLEX
regulators and businesses?											
Assessors should advise the relevant regulatory body (e.g. local authority) in the event of serious non-conformances representing an imminent risk to public or animal health that has not already been rectified by the assessed business.		0	0		0	0	2	1	2		0
Approval Bodies or the Standards Setting Body should have a procedure for communicating with local authorities or other relevant enforcement bodies that a business has been suspended or removed from the scheme (due to non- conformance) õ	0	0	0	0	0	0	0	2	0	0	0
There should be a system in place to notify local authorities and other relevant enforcement organisations of the approved status of businesses.	0	2	0	0	0	0	0	2	0	0	0
The Standard Setting Body should ensure that information about the Assurance Scheme is made publicly available to allow access to interested parties, such as (on a website) regarding: The products covered by the scheme; õ	2	2	2	2	2	2	2	2	2	2	2
The logo (if used) should have a clear consumer message and if one logo covers more than one scheme whether standards are comparable, and state where can consumers find further information.	1	1	0	1	2	2	2	2	0	0	2
There should be a means by which consumers and other interested and affected parties are invited and enabled to provide feedback on the scheme.	1	2	1	1	0	1	2	1	1	1	1

Table 32: Evaluation of fulfilment of each criteria (0 = does not address criteria, 1 = partly fulfilled, 2 = totally fulfils criteria, 3 = exceeds criteria) – Storage, distribution and organic schemes

Scheme name	Wholesaling, Storage & Distribution	Defra Livestock Transport Approval	Leaf Marque	Welsh Organic Scheme	Organic Farmers & Growers Standards
The standard should be developed by a <i>standard Setting Bodyqwith demonstrable</i> expertise, experience and professional standing in the sector to which the standard relates e.g. trade associations and include input from stakeholders.	2	2	2		2
Standard development and maintenance should not be funded directly by individual food businesses or their customers.	2		1	0	0
The standard setting body should adopt a hazard based approach to setting standards, drawing on HACCP or an equivalent risk assessment process that identifies food safety hazards and controls.	2		0	0	2
The standard setting body should have consumer representation, such as consumer organisations or individual members of the public, within the standard setting process.	1		2		1
The Standards Setting and/or Approval Bodies should collect information that enables it to assure that the standards are achieving acceptable standards of food safety and hygiene			2	0	2
The Standards Setting Body should collect and review data at least annually regarding food safety and hygiene standards being achieved by assured businesses. This may be, for example, trends in assessments scores, frequency of product recalls and trends in results of food surveillance/samples.			2	0	2
Feedback is sought from Assurance Scheme stakeholders to identify potential changes to the standard and associated approval processes.	2	2	2	0	
The need for amending approval requirements and processes should be reviewed at least annually.	2		2	0	
The standard should be subject to regular review to ensure currency with legislation.	2		2	0	
There should be procedures in place governing the use of any logos to limit use to those food businesses with current <u>approved</u> qstatus, such as a licensing scheme.	2		2	2	2
The Standard Setting Body and/or Approval Bodies should be required to monitor the use of logos and take appropriate action when necessary.	2		2	2	2
Has UKAS (or equivalent organisations in other countries) accredited any Approval Bodies in respect of this standard?	2	2	2	2	2
The Standard Setting Body should be independent of the organisation(s) undertaking assessment and awarding approval or have independent oversight of its standards setting.	0	2	2	2	0
The governing board should represent the full range of stakeholders. (Approved	1		2		1

					-
Scheme name	NSF CMI	Defra	Leaf	Welsh	Organic
	Wholesaling,	Livestock	Marque	Organic	Farmers
	Storage &	Transport		Scheme	&
	Distribution	Approval			Growers
					Standards
businesses, business clients of approved businesses, consumers, regulators, approval					
bodies and welfare interests).					
The standards setting committee should have an independent chair, such as an expert.	2		2		2
The standard and associated assurance scheme should be fully accessible to food	2	2	1	2	2
businesses seeking approval.					
Standards Setting Bodies (or approval bodies) should publicly report (on websites)		0	0	1	0
aggregated key performance indicators such as the frequency of assessments and rates of					
non-conformance.					
The standard should state and describe the range of activities covered by the standard.	2	2	2	2	2
The standard should incorporate legislative requirements and those from industry	3	2	0	0	0
Codes of Practice as a minimum.					
Animal health and welfare requirements should be included where appropriate		2	0	2	2
(primary producers, distribution and abattoirs) and also be based on (as a minimum)					
a recognised code of practice and legislative requirements.					
Food safety and hygiene standards should be compulsory along with animal health and	2	1	1	2	2
welfare in the case of producers, animal transport and abattoirs.					
The approved business should be required to notify the Approval Body of any major	0	2	2	2	2
complaints or enforcement about food safety/hygiene brought or pending against it with					
respect to any issues covered in the Standards.					
The Approval bodies should be independent of the standard setting body and of the	0	2	2	2	0
assured businesses.					
Approval Bodies should be self-funding.	2	2	1	2	0
Criteria for the selection of assessors should be defined and should cover: Minimum	2	1	2	2	1
professional and/or vocational qualifications, such as a relevant degree or NVQ level					
4 in agriculture or food technology, An appropriate minimum level of relevant					
experience in food safety and hygiene; Independent from the business being					
assessed; Competence requirements					
Approval Bodies should have procedures in place for: Initial approval of assessors,	1	2	2	2	1
such as requiring satisfactory conduct of a minimum number of assessments					
shadowed by an assessment manager;					
The frequency of assessment should be risk based.	1	0	0	0	0
The inspection process should include an appropriate number of short notice (e.g.	1	0	2	1	1
three days) assessments and possibly unannounced re-visits in the event of					
verifying correction of major non-conformances.					

					A .
Scheme name		Defra	Leaf	Welsh	Organic
	Wholesaling,	Livestock	Marque	Organic	Farmers
	Storage &	Transport		Scheme	&
	Distribution	Approval			Growers
					Standards
Assessment duration should be determined by the size, scope and complexity of the	2			2	2
food business					
Each assessment should, as a minimum, incorporate the legislatively required	2	2	2	2	2
elements of the standard.					
The assessment process should include: Visual inspection of sites; Observation of	2	2	2	2	2
operations/activities; Use of questioning techniques to evaluate management and					
staff knowledge; Examination of records.					
The assessment should be supported by a standard checklist or similar aid that	2	2	2	2	2
covers pertinent food safety and hygiene requirements.					
All Assessors should keep a comprehensive record of assessment findings. This	2	2	2	2	2
should include, as a minimum; Date of assessment;					
The decision to approve a food business should be made: By a suitably qualified	2	2	2	2	2
and experienced individual employed within the Approval Body;					
Guidance should be provided to Approval Bodies regarding the action to be taken	2	2	2	2	2
for each type and severity of non-conformance (where severity relates to the risk					
posed to health of the non-conformance).					
There should be guidance on what evidence is required by the assessor for verifying that a	2	2	1	2	2
non-conformance has been corrected.					
The non conformance and verification of correction of the non-conformance should be	2	2	2	2	2
recorded by the assessor.					
The business should have the right to appeal in the event of a failure to gain or maintain	2	2	2	2	2
approved status.					
The Approval Body should have a documented and published process for appeals made by	2	2	2	2	2
businesses.					
There should be an effective process for communicating alerts about food safety and	2	0	2	2	2
hygiene problems to assessors, regulators and businesses?	-	-	-		_
Assessors should advise the relevant regulatory body (e.g. local authority) in the event of	0	2	0		0
serious non-conformances representing an imminent risk to public or animal health that has	, v	-	v		Ŭ
not already been rectified by the assessed business.					
Approval Bodies or the Standards Setting Body should have a procedure for	0	2	0	2	0
communicating with local authorities or other relevant enforcement bodies that a business	0	<u> </u>	U	۷	0
has been suspended or removed from the scheme (due to non-conformance) õ					
There should be a system in place to notify local authorities and other relevant enforcement	0	2	0	0	2
organisations of the approved status of businesses.	U	۷	U	U	۷
	2	2	2	2	2
The Standard Setting Body should ensure that information about the Assurance Scheme is	2	2	2	2	2

Scheme name	NSF CMI Wholesaling, Storage & Distribution	Defra Livestock Transport Approval	Leaf Marque	Welsh Organic Scheme	Organic Farmers & Growers Standards
made publicly available to allow access to interested parties, such as (on a website) regarding: The products covered by the scheme; õ					
The logo (if used) should have a clear consumer message and if one logo covers more than one scheme whether standards are comparable, and state where can consumers find further information.	0	2	2	1	2
There should be a means by which consumers and other interested and affected parties are invited and enabled to provide feedback on the scheme.	1	1	1	1	1

10 APPENDIX E: OUTCOMES EVIDENCE TABLE

Table 33: Reviews of schemes

Reference	Type of study	Weight of evidence	Key findings
Content reviews			
The contribution of UK farm assurance schemes towards desirable environmental policy outcomes. K. Lewis, A Green, J. Tzilivakis and D Warner. International Journal of Agricultural sustainability, 8(4) 2010 p 237-249. 2010.	Qualitative review of content of standards. Comparison of scheme documents against regulations	2 It used a scoring scheme, used suitable regulations for comparison and purposively selected schemes to assess	The review covered environmental standards. In most cases % be proportion of content that sets out to seriously tackle environmental issues is very limited in all but a few of the schemes+(p245)
Sustainability implications of the Little Red Tractor Scheme. Levett- Therivel sustainability consultants. January 2005. Report for the Sustainability Development Commission	Qualitative review of content of standards. Comparison of scheme documents against regulations	2 Compared content against SDC criteria used a 4 point scale	 The review covered sustainability issues which were defined to include safe food and drink. Key conclusions included that: 1) The approach to regulation and on farm inspection seems to be both robust and effective whilst their transparency was commendable. 2) The LRT coverage of food safety and animal welfare is good; 3) The LRT focuses on inputs rather than outcomes; 4) Whe LRT corresponds to minimum regulatory requirements in the UK, and acts therefore as a market qualifier+rather than a driver for further change to do more sustainable farming practicesõ +(piii) 5) The LRT standards do not provide assurance of sustainable food products.

Reference	Type of study	Weight of evidence	Key findings
Review of Food Assurance Schemes. Report for the Food Standards Agency by Ruth Kirk- Wilson. January 2002.	Qualitative review of content of standards and process of assessment	1 Compared content against Food Standard Agency principles in a narrative manner based on information secured by interview, questionnaire and document review	The review covered the Red Tractor (AFS) schemes, Lion Eggs, AIC (feed), SQC, Soil Association and Leaf Marque. Whilst noting areas for further development, the mainstream schemes were assessed to offer increased level of farm inspection against food safety standards by independent bodies. Freedom Foods focuses on welfare, LEAF Marque on environmental assurance and Soil Association on organic standards . rather than food safety.
Review of uptake of FSA food assurance scheme guidance by UK scheme operators. Report for the Food Standards Agency by Ruth Kirk-Wilson. January 2008.	Qualitative review of content of standards and process of assessment	1 Compared content against Food Standard Agency guidance in a narrative manner based on information secured by interview, questionnaire and document review	The review covered the Red Tractor (AFS) schemes, Lion Eggs, AIC (feed), SQC, Soil Association and Leaf Marque. Schemes (esp AFS, Lion Eggs, AIC, SQC)had increased their conformance with Agency guidance significantly since 2002 and become more consistent, esp regarding setting and delivery of production standards (independent standards setting body, HACCP approach to standard setting and whole supply chain being covered). Also it noted that they all did (or were about to) have standards monitored by UKAS accredited certification bodies and monitoring of assessments by the standards setting bodies. More needed to be done to include consumers in the standards setting process and publication of data to support their quality claims, e.g. KPIs. Freedom Foods focuses on welfare, LEAF

Reference	Type of study	Weight of evidence	Key findings
			Marque on environmental assurance and Soil Association on organic standards . rather than food safety.
Assessment of certain UK Farm Assurance schemes against the requirements of the E Food Hygiene Legislation. FHID, Food Standards Agency, November 2006	ce schemes against the ents of the E Food Hygiene on. FHID, Food Standards		AFS, Genesis, SQC, QMFSA, FAWL, NIBL FQAS, ACCS and AP schemes were reviewed, namely those included in the AFS suite of schemes in a memorandum of understanding with LACORS.
		852/2004.	The review was limited to comparing the standards against new food hygiene legislation.
			It found that whilst % ariations do exist between schemes in their approach to food hygiene regulations but the overall overlap with legislation has generally been comprehensiveõ .+(p1) They also noted that certification bodies for these schemes are formally accredited by UKSA.
A critique of assurance schemes. Report for Defra prepared by Agriculture and Environment Research Unit. K Lewis, J Tzilivakis, D Warner, A Green and A Coles. May 2008.	Qualitative review of content of standards and their procedures.	2 Used a 5 point (1 to 5) scoring scheme against defined criteria.	Covered AFS schemes, GlobalGap, LEAF Marque, Natures Choice, FAWL, QMS, Genesis, Soil Association, Organic Farmers and Growers Standards, Compendium of UK Organic Standards, Conservation Grade and NI Farm Quality.
			The report focused on the contribution of schemes towards environmental, socio- economic and animal health and welfare outcomes.
			It noted that environmental issues are consult seriously+dealt with by the bolt on schemes such as LEAF Marque and Conservation

Reference	Type of study	Weight of evidence	Key findings Grade. Most schemes focus on food safety.
			All schemes have absolute baseline of critical points.
A technical assessment and comparison of the inspections carried out by Animal Health Dairy Hygiene and Audits undertaken by Assured Dairy Farms. A Bailey, P Aikman, E Deaville, C Garforth and D Jukes. University of Reading report, June 2008.	Qualitative review of their procedures.	2 Used document review and fieldwork (observation of inspections/ audits) and farmer questionnaires on 19 farms. Used tabulated set of points for comparison.	After comparing the inspection and audit procedures they concluded that There would seem to be opportunity for synergy through rationalisation of on-farm inspection visits and sharing of inspection data to reduce duplication of effortSimilarities between the two approaches occur to some extentBoth approaches provide confidence in the food supply chain, and maintain and improve farm standardsõ +(para 5).
			It did note that First Purchaser sampling results can provide some objective evidence. It also made some recommendations to further develop the audit process, such as inspecting at milking time.
A review of the published literature describing foodborne illness outbreaks associated with ready to eat fresh produce and an overview of current UK fresh produce farming	Qualitative review of content of standards	2 Used a 3 point scoring scheme against defined criteria.	They reviewed Codex Alimentarius Commission, GlobalG.A.P., Assured Produce Scheme, Chilled Food Association, Tescoog natures Choice and Marks and Spencerog Field to Fork standard.
practices. Monaghan J, Thomas D, Goodburn K, Hutchinson M. Report for the Food Standards Agency (B17007). 2008			All schemes covered key risk areas such as water for primary production and storage, although some covered points comprehensively as opposed to just covered+.

Reference	Type of study	Weight of evidence	Key findings
Subjective feedback from businesses			
The benefits of LEAF membership: a qualitative study to understand the added value that LEAF brings to its farmer members. Jane Mills, Nick Lewis and Janet Dwyer. Countryside and Community Research Institute. November 2010. Report for LEAF.	Questionnaire survey of sample of 2% of LEAF members.	1 Just 35 interviews and relies on self reported impacts	 Key benefits were: Financial benefits (cost savings, additional income and market benefits); Adherence to regulatory requirements -54% considered that LEAF contributed to easier compliance with regulatory requirements; Several believed they had been subjected to fewer inspections by regulators as a result of LEAF membership; Improvements in animal health (cases of 10% cost savings for disease treatments); 85% reported increased awareness of the farm environment and 49% of biodiversity;
"Efficiency analysis for performance-critical core processes in Corporate users of the IFS Food in the food industry". IFS, unpublished, 2010.	Survey of members of a scheme with self reported improvements in outcomes	2 The survey of 239 members asked approved business whether selected measures had improved since being approved and so relied on self reported changes with no comparison group.	 They reported that, as a per cent of respondents: 17 percent reported a reduction in food recalls than the general market; 27 percent reported a reduction in customer claims/complaints related to food safety and food quality 51 percent reported reduction in regulatory uncertainty; and 40 percent reported a reduction in product error/defect rates.

Reference	Type of study	Weight of evidence	Key findings
Subjective view of consumers			
Understanding and (dis) trusting of food assurance schemes. Consumer confidence and the knowledge fix. Eden S, Bear C and Walker G. Journal of Rural Studies, 24 (2008) 1-4	Focus groups with consumers about perceptions of assurance schemes	1 Focus groups with consumers (x6)	Consumers found it difficult to understand certification ant the kind of organisations providing assurance. Expressed scepticism about how food assurance schemes work in practice esp their independence. Presumption that all food should and is checked by regulators. Organisations such as Fairtrade were regarded to be independent, as a non- profit organisation and a NGO.
Assessment results		1	
Food Standards Agency. 2010. Proposal to reduce the frequency of on-farm official inspection in the dairy sector. Published online by the Food Standards Agency. <u>http://www.food.gov.uk/multimedia/pdfs/con</u> <u>sultation/officialinspectdairysecteng.pdf</u>	Retrospective comparison of ADF assessment results against AHDH inspection results.	4 Provides objective evidence of correspondence of assessment and inspection results	46% of farms had the same assessment from both schemes. Farms categorised as low risk by ADF assessments also tend to be assessed as low risk at their next AHDH inspection. Where AHDH inspection assessed a farm to be high risk, ADF assessments were not a good indicator of future compliance. 41% more farms were assessed as higher risk by AHDH than by ADF. 13% of farms were assessed as higher risk by ADF than AHDH.
Data supplied by 16 schemes regarding rates of non-conformance and suspensions	Numbers of assessments, suspensions and non conformances	2 Provides evidence of level of non- conformance and trends over time but no cause and effect can be attributed	Rates of non-conformance and suspension vary between schemes widely.

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Reference	Type of study	Weight of evidence	Key findings
The Future of UK feed assurance. An independent review, December 2008. Commissioned by the AIC commission. Completed by Roger Dean.	Numbers of non conformances	2 Provides evidence of level of non- conformance and trends over time but no cause and effect can be attributed.	UFAS Compounders Scheme . Non conformance rate quoted as 6.63% in 2006, 8.02% in 2007 and 7.39% in 2008 (p18).
Does membership of Farm Assurance Scheme affect compliance with Animal Welfare Legislation and codes. University of Warwick study for Defra, October 2010.	Comparison of conformance rates against Animal Health check data.	2 Uses an independent measure of outcomes, namely Animal Health conformance check. But no attribution of cause and effect possible, with no before scores.	Covered 10 assurance schemes and 5 organic certification schemes. Animal Health provided data on all animal welfare inspections whilst schemes provided certification and conformance data. They found that there was a trend for more non-compliance in non certified enterprises than in assured or organic enterprises. The trend was statistically significant for cattle, poultry and sheep, and pigs once other factors were controlled for. For example the odds ratio for non-compliance was 0.53 to 1 for certificated cattle enterprises compared to none certificated.
The reliability of third party certification in the food chain: From checklists to risk oriented auditing. Albersmeier F, Schulze H, Jahn G and Spiller A.	Number certificates refused	2 Compares rate of certification refusal between certification bodies in a single state for one product (n = \sim 1500)	They assessed the German certification system Quality and Safety for farms. Found wide variation between certification bodies in rate of refusal of certificates from 0% to 12.3%, with an average failure rate of 1%. It was noted that 44 auditors had done less than 10 audits and 32 had done more than 100, 5 had done over 500 each.

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Reference	Type of study	Weight of evidence	Key findings
			The variation if refusal rate was attributed to differences in audit quality arising from varying levels of experience and, possibly, due to the %stress of competition+leading to low prices, short farm audits and pressure to pass farms to retain their business. They noted that the farm chooses the auditor.
Microbiological measures			
The Future of UK feed assurance. An independent review, December 2008. Commissioned by the AIC commission. Completed by Roger Dean.	A multi faceted review that included use of BSE survey and test results of ruminant and protein concentrates	2 Objective outcome data but difficult to attribute cause and effect to trends.	Our own review of the data suggests that the number of <i>Salmonella</i> positives in pig/ poultry rations and concentrates and active/passive BSE results started to decline prior to launch of the scheme in 1998. <i>Salmonella</i> positive in pig/poultry rations and concentrates appear to have declined until 2001 at which they have remained steady (at a lower level than before) until the end of the data in 2006. BSE positives declined from 1993 to 2005 to reach zero. The decline in <i>Salmonella</i> was attributed by the report to better feed storage and delivery and that UFAS ‰ay reasonably claim a significant proportion of the credit for this+(p16), but does not present objective evidence to support this assertion. The decline in BSE was attributed to a very high compliance rate with BSE related feed controls complemented by UFAS quality assurance schemes.

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Reference	Type of study	Weight of evidence	Key findings
Foodborne Disease Strategy. Evaluation. C Bell. Report prepared for the Food Standards Agency, March 2006	Commented on Agency surveillance results.	2 Objective outcome data but difficult to attribute cause and effect to trends.	Dr C Bell Noted that <i>Salmonella</i> in raw poultry showed a significant decline from 8.4% to 3.9% between 2001 and 2004 from a Wales and Northern Ireland retail poultry survey, with the Lion Mark introduced in 2000, but no change in <i>Campylobacter</i> . No cause and effect proven.
Fearne A and Martinez M G. Opportunities for the coregulation of food safety: Insights from the United Kingdom. In Choices. 2 nd Quarter 2005, 20 (2).	Reviewed data on <i>Salmonella</i> infections before and after introduction of Lion Egg	2 Objective outcome data but difficult to attribute cause and effect to trends.	Fearne and Martinez (2005) summarise the chronology of the British Egg Council ±ion Eggq scheme and attribute the decline in <i>Salmonella Enteritidis</i> infections to the introduction of the scheme. The rate of <i>Salmonella Enteritidis</i> PT4 infections reported by the Health Protection Agency was reported to have declined greatly after 1998, contrary to the previous rise, although <i>Salmonella Enteritidis non-PT4</i> rose from 2000 to 2004 in the reported data.
Fearne A and Martinez M G. Opportunities for the coregulation of food safety: Insights from the United Kingdom. In Choices. 2 nd Quarter 2005, 20 (2).	Reviewed before and after data on <i>Salmonella</i> in pigs	2 Objective outcome data but difficult to attribute cause and effect to trends.	Report a decline in <i>Salmonella</i> in UK pigs between 2003 and 2004 from 25% to 20.7%. They cite the British Pig Executive Z oonoses Action Planq(ZAP) launched in June 2002. They attribute the improvement to the ABP scheme.
Food Standards Agency. (2004) Report of the survey of <i>Salmonella</i> contamination of UK produced shell eggs on retail sale. <u>http://www.food.gov.uk/multimedia/p</u> <u>dfs/fsis5004report.pdf</u>	Reviewed data on Salmonella infections before and after introduction of Lion Egg	3 Objective outcome data and assessment against a comparison group of producers	There had been a 3-fold reduction in the level of <i>Salmonella</i> contamination since 1995/96 and this was likely to reflect the measures introduced by the UK egg industry to control <i>Salmonella</i> . However, the FSA report also stated that:
			There was no statistically significant difference between the prevalence of

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Reference	Type of study	Weight of evidence	Key findings
			Salmonella contamination õ between non- Lion code eggs and Lion code eggs;õ
			• The second ACMSF report on <i>Salmonella</i> in eggs published in 2001concluded that the reduction in salmonellosis was mainly due to vaccinating hens under the British Egg Industry Council (BEIC) Lion code scheme. However, it noted that some producers who were not under the BEIC Lion code scheme also vaccinated against <i>Salmonella</i> .
UK Monitoring programmes to detect <i>Salmonella in pigs</i> . 20 March 2009. Food Standards Agency. <u>http://www.food.gov.uk/multimedia/p</u> <u>dfs/mon<i>Salmonella</i>pigs.pdf</u>	Reviewed before and after data on <i>Salmonella</i> in pigs	2 Objective outcome data but difficult to attribute cause and effect to trends.	No improvement in levels of <i>Salmonella</i> was found during the second survey in 2003, compared to 1999-200 survey.
EFSA (2010) Analysis of the baseline survey on the prevalence of <i>Campylobacter</i> in broiler batches and of <i>Campylobacter</i> and <i>Salmonella</i> on broiler carcasses in the EU, 2008 - Part A: <i>Campylobacter</i> and <i>Salmonella</i> prevalence estimates. EFSA Journal 2010; 8(03):1503 http://www.efsa.europa.eu/en/scdoc <u>s/scdoc/1503.htm</u>	Comparison of infection rates between states	2 Objective outcome data but difficult to attribute cause and effect to trends.	UK chicken production has not reduced infection rates below those for the EU as a whole and are higher than in some other EU states. Some states have significantly lower rates of infection than the UK, with some states reporting <i>Campylobacter</i> of less than 10% and 0% for <i>Salmonella</i> .

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