Increasingly, consumers, retailers and food manufacturers are focusing on food safety and quality. This has been confirmed by the Consumer Goods Forum, which has found that food and product safety are top priorities for both producers and sellers.

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1 Introduction

Even more than product and consumer safety, manufacturers’ primary concerns are productivity, performance and profitability – all driven by consumer demand and product appeal. In a competitive world market, producers at every point in the supply chain are watching margins, while seeking new strategies to protect market share. This process is made yet more difficult by the advent of tough new legislation from major markets such as the USA and China, where laws aim to reassure customers of proper product quality.

As well as general food safety, other industry issues are gaining importance, such as healthy or organic / biologically-grown foods and animal welfare. These matters are, increasingly, being addressed by certification procedures – often to a globally-accepted food standard, which helps to ensure that consumers receive products of sufficient quality and integrity. In addition, the broader adoption of global food standards means that retailers and manufacturers are more likely to buy from certified suppliers and sub-suppliers.

That’s why there is so much current work taking place to ensure uniform conformity among standards, and manufacturers are receiving help to decide which standards are right for them. This work is mainly driven by the Global Food Safety Initiative (GFSI), a retailer / manufacturer non-profit foundation.

This White Paper discusses four of the most frequently used standards, comparing them with each other, and highlighting matters that producers may want to consider when deciding which standards to adopt.

Finally, this paper considers current food safety and quality trends, such as the need for manufacturers and suppliers to take a more active role in certification, in order to ensure future profitability.
2 Certification: Oversight, Responsibilities & Benefits

Certification can be defined as a procedure by which an accredited certification body gives written assurance that a product or a process conforms to the given standard. Standards can be set up by the public sector (e.g. governmental institutions) or by the private sector (retailer / industry associations).

2.1 Benefits of Certification

There are, of course, existing general quality standards such as ISO 9001, and quality systems such as GMP or HACCP; however, it is becoming increasingly important for food manufacturers and retailers to be certified according to a food-specific, GFSI-accepted standard. Benefits include:

- Improved customer confidence
- Enhanced brand protection
- A standard process / quality measure
- Minimised costs, as a result of not having to deal with the complexities of distributing non-conforming products

2.2 The Global Food Safety Initiative (GFSI)

At the request of the CEOs of around 30 international retailers, GFSI was set up in 2000 as a non-profit foundation, and is now managed by The Consumer Goods Forum. The initiative was established against the backdrop of various food safety crises (including BSE), with the intention of re-establishing and ensuring worldwide consumer confidence in food safety.

GFSI benchmarks existing food standards against food safety criteria, with the goal of standardising certifications and eliminating multiple audits. Preferred implementation places the GFSI just above third parties / accreditation bodies (see below). Key elements and further requirements are summarised in the GFSI Guidance Document (found via links at the end of this paper).
3 Choosing a Standard

As a result of their ongoing work to ensure that every certification method is sound, GFSI promotes the equal acceptance of all approved standards, in accordance with the principle of ‘Once certified, accepted everywhere’. However in practice, retailers, manufacturers - and even entire market segments – may have particular certification preferences.

Before deciding on adopting a particular standard (or a set of standards), manufacturers should check with customers to determine which standard they accept or prefer. Bearing in mind such preferences, some certifying bodies offer ‘combi-audits’ (for example, BRC & FSSC 22000) in a single, integrated audit process.

4 GFSI Accepted Standards

From 2012 onwards, the standards listed below were recognised by GFSI. Schemes shown in bold in the list below currently rank as the most often used and most frequently accepted worldwide.

- BRC Global Standard for Food Safety
- Canada GAP
- FSSC 22000
- The Global Aquaculture Alliance
- Global GAP
- Global Red Meat Standard
- IFS (International Featured Standard) Food
- Primus GFS
- SQF

An overview of the most commonly used GFSI-accepted food safety and quality standards follows, ranked in order of popularity in today’s market.

4.1 BRC Global Standard for Food Safety

Originally developed in response to the needs of UK members of the British Retail Consortium, BRC standards have gained use worldwide, and are proving to be acceptable by growing numbers of retailers and branded manufacturers in the EU, North America and further afield. BRC offers five related standards: BRC Global Food Standard, BRC Storage and Distribution, BRC Packaging and Packaging Materials Standard, Global Standard for Agents and Brokers and BRC Consumer Products.

BRC Global Standard for Food Safety was first introduced in 1998, and now has almost 15,000 certified sites in over 100 countries. It was developed in order to specify safety, quality and operational criteria to which food manufacturers should comply in order to protect consumers, and it was the first standard to be accepted by GFSI in 2000.
4.2 IFS for Food

Founded in 2002 by a German retailer association, the IFS (International Featured Standard) represented more than 190 dealers (including 12,000 IFS-certified suppliers in 90 countries) by 2011. The standard provides a range of integrated checks on safety and quality in food processing companies, and offers certification across the whole range of food processing, with the exception of agricultural primary production. The IFS comprises five related standards: IFS Food, IFS Broker, IFS Logistics, IFS Cash & Carry / Wholesale and IFS HPC.

IFS Food, Version 6, has involved the International Technical Committee, as well as French, German and Italian working groups. In addition, support and input has been provided by retailers and stakeholders, as well as by industry and food services representatives, plus certification bodies. Further help was given by a recently formed IFS North America working group, alongside retailers from Spain, Asia and South America. IFS Food Version 6 was last updated in April 2014.

IFS commenced with the publication of IFS Food and then developed Standards for other sectors of the supply chain, such as IFS Broker, IFS Cash & Carry/Wholesale, IFS Food Store, IFS HPC, IFS Logistics and IFS PACsecure.

4.3 SQF

SQFI has combined two standards:
- The SQF 1000 Code, for primary producers
- The SQF 2000 Code, for manufacturers, distributors and brokers

Together, these form a single standard for food safety ‘from farm to fork’. Additionally, by requiring both regulatory and customer compliance, the SQF Code is equipped for an ever-evolving market. The SQF Program makes certification attainable for even the smallest companies by dividing the process into three steps:

- Level 1: Fundamental food safety controls, appropriate for low-risk products
- Level 2: HACCP and ISO-based food safety program recognized by the Global Food Safety Initiative (GFSI)
- Level 3: A comprehensive mastery of safety and Quality Management systems

4.4 FSSC 22000

Founded in 2004, the Foundation for Food Safety Certification has developed FSSC 22000, which is supported by ‘FoodDrinkEurope’, a representative body for the European food and drink industry. The scheme is recognized by the Global Food Safety Initiative (GFSI).

The FSSC 22000 Food Safety Management System provides a framework for effectively managing an organization’s food safety responsibilities. FSSC 22000 is based on existing ISO Standards, and demonstrates that a company has a robust Food Safety Management System in place that meets the requirements of its customers and consumers.

Already, 9000+ organizations in 146 countries have achieved FSSC 22000 certification – and with 100+ licensed Certification Bodies plus over 1,500 auditors now worldwide, the aim behind FSSC 22000 is to ensure total consumer trust in the supply of safe food and drinks.
5 Comparing the Standards

Whether for primary or secondary production, companies adopting GFSI-accepted standards must demonstrate that they:

- Possess a food safety management system
- Have Good Manufacturing Practices (GMP), good distribution practices and / or good agricultural practices
- Have conducted Hazard Analysis and identified Critical Control Points (where required), in line with HACCP principles

Each scheme varies in scope and structure, and the following chart analyses basic differences amongst the most widely-used standards.

<table>
<thead>
<tr>
<th>Subject</th>
<th>BRC</th>
<th>IFS</th>
<th>SQF</th>
<th>FSSC 22000</th>
</tr>
</thead>
<tbody>
<tr>
<td>System requirements</td>
<td>Quality and food safety</td>
<td>Quality and food safety</td>
<td>Level 2 Food Safety; Level 3 includes Quality (need to conduct food safety analysis, define critical quality control points)</td>
<td>Food Safety</td>
</tr>
<tr>
<td>System establishment and implementation</td>
<td>Prescriptive requirements</td>
<td>Prescriptive requirements</td>
<td>Some requirements are prescriptive; Requires SQF practitioner (full-time)</td>
<td>Provide framework requirements for the company to demonstrate how to comply and demonstrate their food safety system</td>
</tr>
<tr>
<td>Report / data management</td>
<td>By certification body and standard owner</td>
<td>By certification body and standard owner</td>
<td>Company needs to register in Quickfire system prior to certification process</td>
<td>By certification body and standard owner</td>
</tr>
<tr>
<td>Certification process</td>
<td>No stage 1; Company goes directly to an on-site certification audit</td>
<td>No stage 1; Company can easily go direct to an on-site certification audit</td>
<td>Stage 1 on or off site; Stage 2 on site; Any major nonconformity found during stage 1 needs to be closed out prior to stage 2 audit</td>
<td>Stage 1 on site; Stage 2 on site; Critical items from stage 1 to be closed out during stage 2 audit</td>
</tr>
</tbody>
</table>
There is much to consider when comparing the standards, and producers may want to bear in mind:

- Product characteristics
- The company’s position in the supply chain
- Current management systems
- The company’s historic compliance with existing regulations
- Customer / industry preferences

As noted previously, one standard may be the easiest to apply, but it may not offer the benefits of certification because it is not yet considered acceptable amongst a particular company’s customers.

<table>
<thead>
<tr>
<th>Subject</th>
<th>BRC</th>
<th>IFS</th>
<th>SQF</th>
<th>FSSC 22000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate validity</td>
<td>Certificate valid for 1 year; Grade C-Recertification within 6 months</td>
<td>Certificate valid for 1 year</td>
<td>Certificate valid for 1 year; Grade C-Recertification within 6 months</td>
<td>Certificate valid for 3 years</td>
</tr>
<tr>
<td>Integrated audit</td>
<td>Recertification depends on audit result (Grade C needs to be 6 months so interval or integrated condition will be changed depending on result)</td>
<td>Does not allow integration with ISO management system standard; Allows integration with product certification schemes</td>
<td>Different management system structure but possible for integrated audit – will require separate reports since SQF reporting is uploaded to a database</td>
<td>Same management system structure as ISO standard so it is easily integrated with other management system standards</td>
</tr>
<tr>
<td>Recertification/ maintenance visit</td>
<td>Same audit time as certification visit</td>
<td>Same audit time as certification visit</td>
<td>Same audit time as stage 2 on site</td>
<td>Maintenance audit requires less audit time on site than initial or recertification</td>
</tr>
<tr>
<td>Certification mark</td>
<td>Not allowed to be displayed on the product</td>
<td>Not allowed to be displayed on the product</td>
<td>Level 3 certification - can use certification mark on the product</td>
<td>Not allowed to be displayed on the product</td>
</tr>
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</table>

Source: COMPARING GLOBAL FOOD SAFETY INITIATIVE GFSI RECOGNISED STANDARDS, SGS, 2011
6 Sample Audit Procedure

The following flowchart illustrates the standard procedure for obtaining FSSC 22000 certification. Other procedures may vary slightly - however, this is an excellent basic representation of a certification audit. The process can be arduous, but experts within the certifying body and industry will be available to provide necessary guidance so as to ensure systems are compliant and safe.

Obtain a copy of the scheme requirements from www.FSSC22000.com

Complete a Self Assessment to determine compliance with the requirements in section 3 of Part 1 of the scheme documents

Select an approved Certification Body

**Initial Audit Stage 1**
Evaluation of FSMS* documentation, scope, resources and preparedness for stage 2

**Initial Audit Stage 2**
Evaluation of the implementation and effectiveness of the FSMS*

Closing meeting and confirmation of any non-conformities

Initial audit corrections and corrective action completed

Corrective action not completed or not satisfactory

No certificate issued

Corrections and corrective action evidence assessed by certification body by documented evidence or revisits. Successful close out documented

Independent certification review completed

Certification decision made by certification body

Ongoing surveillance audits

*Food Safety Management System
7 Outlook

The trend towards more stringent food safety and quality regulation continues, with new challenges concerning food safety and quality being created by developments such as GMOs (Genetically Modified Organisms), nanotechnology and the increase in international sourcing and trading of food. These developments are expected to create ever more demanding standards and regulations. Robert J. Parrish, Vice-President Global Food, SGS Geneva (Consumer Testing Services) believes that the following food safety issues will emerge in the coming years:

- Organisations will take even more ownership of food safety to protect their brands
- Even tighter controls will be established to safeguard the food supply chain
- Traceability and integrated management programmes will become an essential part of food production

With these trends emerging, as well as equivalent changes in international and national laws, corresponding standards and certification processes will be subject to regular revision. Some examples of recent legislation impacting certification processes follow.

7.1 New Chinese Food Safety Law

In February 2009, the Standing Committee of the National People's Congress of the People's Republic of China passed the Food Safety Law of the People's Republic of China after five years of deliberation and review. The law became officially effective on the 1st June 2009. Apart from the Food Safety Law, there are over 3,000 food safety regulations and standards in China – and these have been published by bodies such as the Ministry of Agriculture (MOA), the Ministry of Health (MOH), and the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ).

China’s current food safety system involves at least five departments, including Health, Agriculture, Quality Supervision, Industry & Commerce Administration, and Food & Drug Supervision. These departments have different responsibilities for food safety; for example, Quality Supervision Administration monitors the food production sector, but when foodstuffs leave factories for sale, this is monitored by the Industry & Commerce Administration.

7.2 U.S. Food Safety Modernization Act (FSMA)

In the U.S., the Food Safety Modernization Act became law under President Obama in January 2011. It shifts federal regulators’ focus from ‘responding to contamination to preventing contamination’. Implementation of the new regulations is in progress and covers:

- Enhanced prevention controls
- Increased frequency of mandatory FDA inspections
- Stronger accountability for importers

In general, both the new Chinese Food Safety Law and the FSMA:

- Strengthen monitoring / supervision powers
- Toughen safety standards
- Ensure recall of substandard products
- Subject offenders to severe sanctions

In addition to these more stringent requirements, global oversight bodies are working to ensure that certification standards are ever more comprehensive and widely-accepted. Consequently, more manufacturers and suppliers will find themselves seeking certification if they wish to stay ahead of legislative changes and ensure future profitability.
8 Summary

Consumers and governments worldwide are becoming increasingly concerned about unsafe food. News of recent contamination cases (such as the Enterohaemorrhagic Escherichia coli (EHEC) outbreak in June 2011) is often published and distributed widely and rapidly via electronic media, which clearly leads to reduced income for those suppliers involved in such contamination events – and may result in reduced income for an entire industry segment.

Being certified according to a GFSI-accepted standard, such as IFS, SQF, FSSC 22000 or BRC, demonstrates a company’s commitment to focusing on safety. While all certifications deal with similar food safety-related concerns, it’s important to choose the right certification (based on a company’s industry, needs and customer preferences), even as GFSI continues to work to create harmony among the approved scheme owners and provide a ‘Once certified, accepted everywhere’ approach.

Knowing and implementing requirements according to one of these standards provides a framework for continually improving production quality processes. This helps to protect and enhance brand reputation, and ensures future profitability in a competitive global market.

9 Additional resources

- METTLER TOLEDO, Meet Global Food Safety Standards and Increase Productivity and Profitability – www.mt.com/food-regulations
- International Featured Standards (IFS) – www ifs-certification.com
- British Retail Consortium (BRC) – www.brcglobalstandards.com
- Safe Quality Food (SQF) Institute – www.SQFI.com
- Global Food Safety Initiative (GFSI) – www.mygfsi.com
- Food Safety System Certification 22000; FSSC 22000 – www.fssc22000.com
- FDA Food Safety Modernization Act, FSMA – www.fda.gov/food/ foodsafety/fsma/
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