Sustento del uso justo de Materiales Protegidos

derechos de autor para fines educativos

UCI
Universidad para la Cooperación Internacional

UCI
Sustento del uso justo de materiales protegidos por
derechos de autor para fines educativos

El siguiente material ha sido reproducido, con fines estrictamente didácticos e ilustrativos de los temas en cuestión, se utilizan en el campus virtual de la Universidad para la Cooperación Internacional – UCI – para ser usados exclusivamente para la función docente y el estudio privado de los estudiantes pertenecientes a los programas académicos.

La UCI desea dejar constancia de su estricto respeto a las legislaciones relacionadas con la propiedad intelectual. Todo material digital disponible para un curso y sus estudiantes tiene fines educativos y de investigación. No media en el uso de estos materiales fines de lucro, se entiende como casos especiales para fines educativos a distancia y en lugares donde no atenta contra la normal explotación de la obra y no afecta los intereses legítimos de ningún actor.

La UCI hace un USO JUSTO del material, sustentado en las excepciones a las leyes de derechos de autor establecidas en las siguientes normativas:

a- Legislación costarricense: Ley sobre Derechos de Autor y Derechos Conexos, No.6683 de 14 de octubre de 1982 - artículo 73, la Ley sobre Procedimientos de Observancia de los Derechos de Propiedad Intelectual, No. 8039 – artículo 58, permiten el copiado parcial de obras para la ilustración educativa.
b- Legislación Mexicana; Ley Federal de Derechos de Autor; artículo 147.
c- Legislación de Estados Unidos de América: En referencia al uso justo, menciona: "está consagrado en el artículo 106 de la ley de derecho de autor de los Estados Unidos (U.S,Copyright - Act) y establece un uso libre y gratuito de las obras para fines de crítica, comentarios y noticias, reportajes y docencia (lo que incluye la realización de copias para su uso en clase)."
d- Legislación Canadiense: Ley de derechos de autor C-11– Referidos a Excepciones para Educación a Distancia.
e- OMPI: En el marco de la legislación internacional, según la Organización Mundial de Propiedad Intelectual lo previsto por los tratados internacionales sobre esta materia. El artículo 10(2) del Convenio de Berna, permite a los países miembros establecer limitaciones o excepciones respecto a la posibilidad de utilizar lícitamente las obras literarias o artísticas a título de ilustración de la enseñanza, por medio de publicaciones, emisiones de radio o grabaciones sonoras o visuales.

Además y por indicación de la UCI, los estudiantes del campus virtual tienen el deber de cumplir con lo que establezca la legislación correspondiente en materia de derechos de autor, en su país de residencia.

Finalmente, reiteramos que en UCI no lucramos con las obras de terceros, somos estrictos con respecto al plagio, y no restringimos de ninguna manera el que nuestros estudiantes, académicos e investigadores accedan comercialmente o adquieran los documentos disponibles en el mercado editorial, sea directamente los documentos, o por medio de bases de datos científicas, pagando ellos mismos los costos asociados a dichos accesos.

Comparing Global Food Safety Initiative (GFSI) Recognized Standards

September 2022

WHEN YOU NEED TO BE SURE

SGS

Abstract

This document aims to provide an overview of the Global Food Safety Initiative (GFSI) and what it means for an international food safety standard to be GFSI-recognized. It then goes on to discuss each of the GFSI approved schemes individually looking in detail at the key schemes which are offered by BRCGS, FSSC 22000, IFS Food, SQF Code, and GLOBALG.A.P. For each of these, the requirements, benefits, and certification processes are reviewed. There are five further schemes that are covered in brief. The most generic of the schemes and those most commonly adopted by branded goods manufacturers (FSSC 22000, BRCGS, SQF Code and IFS) are then compared, by discussing the criteria, similarities and differences between the schemes. It also includes a brief overview of alternative programs that support small and medium sized businesses by providing a stepping-stone prior to full GFSI-recognized food safety certification. The paper then looks at the merits of a customized single food audit and although there is rarely one 'optimal fit' food safety standard for any given organization, a combination of schemes brought together in one audit procedure may be a suitable solution.

Contents

I. Executive summary 3
II. The global food safety initiative (GFSI) 4
III. GFSI-recognized food safety schemes 6
IV. A comparison of the GFSI-recognized schemes 21
V. Combining GFSI-recognized schemes with those related to the environment, health & safety and quality 28
VI. Stepping stone: moving towards becoming certified to a GFSI-recognized standard 30
VII. Conclusion 30

I. Executive summary

Retailers, manufacturers, foodservice operators, caterers, industry associations, technical experts and governments all have one thing in common when it comes to food safety. They recognize that consumers' confidence drops to an all-time low after a public food scare. As with many industries, widespread concern for safety often prompts action and this has been true of the food sector. Food safety scares and changes in legislation mean more audits for manufacturers, particularly by retailers who want confidence in their suppliers. For some, the number of audits has become excessive, time consuming and costly.

Over the past twenty years, the industry has come together to look at what could be done to improve the situation and reduce the strain on suppliers while maintaining the required safety levels. While consumers needed a reassurance that the food they were purchasing and eating was guaranteed as safe for consumption, the unnecessarily repetitive audits needed to be reduced.

Due to food supply chains stretching across the globe it was important that any industry solution covered the end-to-end supply chain and influenced the industry on an international scale. As a result of all these combined issues, the Global Food Safety Initiative (GFSI) was developed.

All interested parties around the world joined forces to support the creation of a benchmarking and approval scheme that would lay the foundations for an industry-wide expectation in terms of food safety management system deliverables. This became the benchmark against which all food safety standards can be tested, in order to verify that the standard gained by an organization was in fact proving that they produce or handle food at the level of safety specified.

Holding a GFSI-recognized certification is fast becoming an industry standard as part of supplier approval. Organizations audited and certified through a GFSI-recognized scheme increase their chances of being a chosen supplier to retailers and/or manufacturers who demand their suppliers hold a GFSI-recognized certification. The vision of the GFSI benchmark – 'once certified, accepted everywhere' – is moving in the direction of being realized, both across the industry and across the world. With a number of international GFSI-recognized food safety standards now available, competitive suppliers are already certificated, seeking certification or developing their processes and identifying the best certification scheme for their organization. The hope is that as certification becomes even more widespread consumer confidence will be fully restored, and food scares will become a thing of the past.

The industry joined forces to set the standard for food safety management system deliverables.

II. The Global Food Safety Initiative (GFSI)

The Global Food Safety Initiative (GFSI) was originally set-up as a result of food safety scares in early 2000. Its primary purpose is to ensure the safety of food reaching all consumers internationally, but it also aims to develop efficiencies, promote transparency, guide cost savings and become a platform for continuous improvement in the area of food safety. It does this by leading the global food industry towards a harmonized approach to food safety management systems.

Before the GFSI was established, retailers and major buyers across the food industry demanded specific food safety requirements for particular products. To prove that these requirements were met food suppliers often had to have a number of different audits of their premises and systems, a process that cost them time and money. From audit to audit there was also considerable duplication.

This issue was dealt with, to some extent, by industry development of national and regional schemes, such as the BRCGS or the IFS Food standards. While these did aggregate the needs and demands of some buyers, there remained many instances of suppliers being audited through numerous processes.

As a result of this continued duplication of audits the GFSI set out to develop a uniform structure for food safety standards. It did this by detailing food safety criteria that should be incorporated and putting common procedures in place for accreditation and certification bodies, which verified the implementation of standards. In 2020, the GFSI added additional benchmarking requirements that require every facility to have an unannounced audit at least once every three years.

With this approach the GFSI aims to deliver on its mission to: 'Provide continuous improvement in food safety management systems to ensure confidence in the delivery of safe food to consumers worldwide'. In order to do this effectively, it operates with four major objectives in mind:

1. Reduce food safety risks by delivering equivalence and convergence between effective food safety management systems
2. Manage cost in the global food system by eliminating redundancy and improving operational efficiency
3. Develop competencies and capacity building in food safety to create consistent and effective global food systems
4. Provide a unique international stakeholder platform for collaboration, knowledge exchange and networking

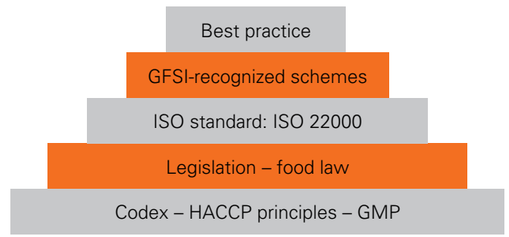
The GFSI is run by the Consumer Goods Forum, which brings together CEOs and senior management from over 400 retailers, manufacturers, service providers and other stakeholders across the food industry. Covering all areas in terms of both products and international locations, the Forum is considered to be truly representative of the needs of the industry as a whole.

Under the guidance of the Forum, governance of the GFSI is undertaken by a steering committee, various Technical Working Groups and a Stakeholder Advisory Forum. While the steering committee sets the strategic direction and oversees the GFSI on a daily basis, the Technical Working Groups provide technical expertise and advice. The groups are composed of retailers, manufacturers, food service operators, standard owners, certification bodies, accreditation bodies, industry associations and other technical experts.

All these interested parties have worked together to develop the GFSI Guidance Document. This multi-stakeholder document sets out the requirements for food safety management schemes and provides a framework against which these schemes can be benchmarked. It brings together three key elements of food production:

- Food Safety Management Systems
- Good Practices and HACCP Requirements (GAP, GMP, GDP)
- Requirements for the Delivery of Food Safety Management Systems

Elements of all GFSI-recognized



Source: GFSI: Enhancing Food Safety Through Third Party Certification

In June 2007, the GFSI achieved a major breakthrough, which has since augmented its beneficial role in international food safety. At the time seven major food retailers all agreed to reduce duplication in the supply chain through the common acceptance of any of the GFSI-benchmarked schemes. Carrefour, Tesco, Metro, Migros, Ahold, Walmart and Delhaize paved the way for the future growth in acceptance of GFSI-recognized schemes and with that started the GFSI off in the direction of achieving its vision of 'once certified, accepted everywhere'. Subsequently, many other food retailers and manufacturers have agreed to recognize the GFSI-benchmarked schemes. These include, among others: Asda; Campbells; Cargill; The Coca Cola Company; ConAgra Foods; Coop; ICA; Kroger; and Sodexo.

The GFSI set out to develop a uniform structure for food safety standards so auditing repetition could be removed.

III. GFSI-recognized food safety schemes

There is currently a range of manufacturing schemes, primary production schemes and combined schemes that have been benchmarked and recognized by the GFSI. Each varies in terms of the scope and criteria covered, as well as in structure, the certification process, validity and the reporting and management conducted.

Each standard has a different structure and procedures for meeting each of the three main areas of requirements:

- The Food Safety Management System
- Good Manufacturing Practices, Good Distribution Practices and Good Agricultural Practices
- Hazard Analysis and the Critical Control Point (HACCP)

Here we look at each of the schemes individually:

MANUFACTURING SCHEMES

BRCGS

BRCGS was founded in 1996 by retailers who wanted to harmonize food safety standards and purchased by LGC in 2016.

The BRCGS has developed a set of Global Standards: international product safety and quality certification programs that currently certify suppliers in more than 100 countries. Retailers and manufacturers around the world use the BRCGS as their chosen approved standards for suppliers.

The BRCGS covers the supply chain with four related standards:

- BRCGS for Food Safety
- BRCGS for Storage and Distribution
- BRCGS for Packaging Materials
- BRCGS for Agents and Brokers

The BRCGS for Food Safety was developed with the objective of specifying the safety, quality and operational criteria required for food manufacturers to comply with regulations and protect consumers. It was one of the very first standards recognized by GFSI. All companies involved in the end-to-end supply chain are required to have a clear understanding of the products they produce and distribute and have the systems in place to identify and control food safety hazards.

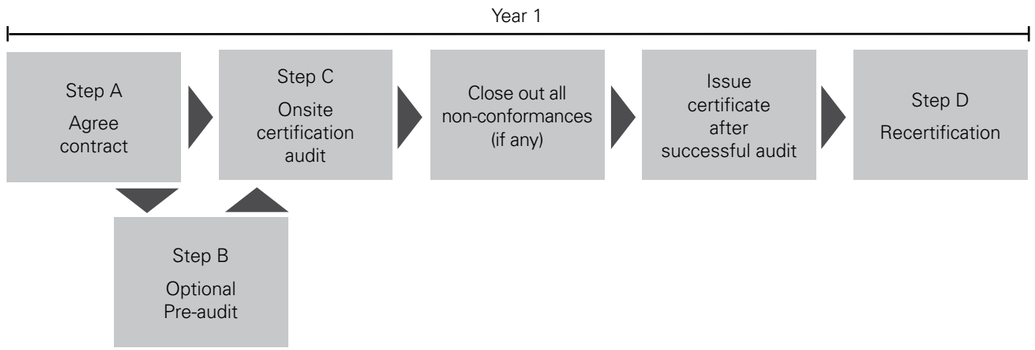
Each GFSI-recognized standard covers the same three main areas but approaches them with different structures and procedures.

The requirements

The major requirements of the BRCGS for Food are as follows:

- Senior Management Commitment
  - Senior Management Commitment and Continual Improvement
  - Organizational Structure, Responsibilities and Management Authority
- The Food Safety Plan – HACCP
  - The HACCP Food Safety Team – Codex Alimentarius Step 1
  - Prerequisite Programs
  - Describe the Product – Codex Alimentarius Step 2
  - Identify Intended Use – Codex Alimentarius Step 3
  - Construct a Process Flow Diagram – Codex Alimentarius Step 4
  - Verify Flow Diagram – Codex Alimentarius Step 5
  - List All Potential Hazards Associated with Each Process Step, Conduct a Hazard Analysis and Consider any Measures to Control Identified Hazards – Codex Alimentarius Step 6, Principle 1
  - Determine the Critical Control Points (CCP) – Codex Alimentarius Step 7, Principle 2
  - Establish Critical Limits for each CCP – Codex Alimentarius Step 8, Principle 3
  - Establish a Monitoring System for each CCP – Codex Alimentarius Step 9, Principle 4
  - Establish a Corrective Action Plan – Codex Alimentarius Step 10, Principle 5
  - Establish Verification Procedures – Codex Alimentarius Step 11, Principle 6
  - HACCP Documentation and Record Keeping – Codex Alimentarius Step 12, Principle 7
- Food Safety and Quality Management System
  - Food Safety and Quality Manual
  - Documentation Control
  - Record Completion and Maintenance
  - Internal Audit
  - Supplier and Raw Material Approval and Performance Monitoring
  - Specifications
  - Corrective and preventive actions
  - Control of Non-Conforming Product
  - Traceability
  - Complaint Handling
  - Management of Incidents, Product Withdrawal and Product Recall
- Site Standards
  - External Standards and site security
  - Food defense
  - Layout, product flow, and segregation
  - Building Fabric, raw material-handing, preparation, processing, packing, and storage areas
  - Utilities – Water, Ice, Air and Other Gases
  - Equipment
  - Maintenance
  - Staff Facilities
  - Chemical and Physical Product Contamination Control
  - Foreign Body Detection and Removal Equipment
  - Housekeeping and Hygiene
  - Waste/Waste Disposal
  - Management of Surplus Food and Products for Animal Feed
  - Pest Management
  - Storage Facilities
  - Dispatch and Transport
- Product Control
  - Product Design/Development
  - Product Labeling
  - Management of Allergens
  - Product Authenticity, Claims, and Chain of Custody
  - Product Packaging
  - Product Inspection, On-Site Product Testing, and Laboratory Testing
  - Product Release
  - Pet Food and Animal Feed
  - Animal Primary Conversion
- Process Control
  - Control of Operations
  - Quantity – Weight Volume and Number Control
  - Calibration and Control of Measuring and Monitoring Devices
- Personnel
  - Training
  - Personal Hygiene
  - Medical Screening
  - Protective Clothing

BRCGS certification process



The benefits

There are a number of benefits for manufacturers who are certified against BRCGS. A number of these benefits apply across other standards while some are specific to the BRCGS for Food Safety, including:

- The BRCGS has prescriptive requirements for process, foreign body and hygienic control which provide clear guidelines as to how food safety should be addressed
- It has a simple certification process which only requires an onsite audit (there is no requirement for a desk study step)
- It includes the option for voluntary unannounced audits to show your high level of commitment to food safety and quality
- Re-certification audits have to be done within a fixed timescale to ensure continuous certification. Audits are repeated every 12 months for Grades A and B, 6 months for Grade C & D
- The standard has a focus on production of safe, legal, and authentic products to the specified quality
- Audit details are displayed on the public BRCGS Directory and the search function allows potential buyers to find the details of suppliers holding the standard
- Audit reports are held in the private area of the BRCGS directory and suppliers holding the standard can give retailers or other standard holders in the directory access to their report. This significantly reduces the time to keep customers up-to-date with certification status
- The BRCGS has launched TELL ME, a service that offers a confidential reporting hotline for employees, suppliers, clients and other stakeholders to report concerns about a manufacturing site that is certificated against a BRCGS.

The certification process

The BRCGS certification process consists of four steps:

- Step A – Manufacturers are provided with a proposal based on the size of their organization, the number of staff they have and the number of unique HACCP plans involved. They can then proceed with the audit by accepting the proposal from the certification body.
- Step B – There is then an optional 'pre-audit' stage for initial certification, which is often useful in identifying any weaknesses in systems and in building confidence before the formal audit.
- Step C – The formal audit is an onsite audit. All parts of the site and process covered in the scope are assessed to determine compliance with every clause of the standard.

  Manufacturers receive a Corrective Action Report at the end of the formal audit, identifying any observed non-conformities. Depending on their nature, these non-conformities should be closed with documentary evidence or through an onsite visit within 28 calendar days of the audit. Once non-conformities have been addressed and the auditor has accepted the evidence, an independent technical review of the audit is conducted by an authorized Certification Manager who approves the issuance of a certificate and the report is uploaded to the BRCGS Directory.
- Step D – Full recertification audits are scheduled at defined intervals depending on the outcome of the certification audit. For Grade A and B audits this is 12 months later, for a Grade C audit this is 6 months later. The audit is a full re-audit conducted in the same way as the initial audit, but the implementation of the action plan to resolve the root cause is also reviewed, addressing past non-conformities and whether the audit has taken place by the re-audit due date.

Food safety management system certification FSSC 22000

Owned by The Foundation for Food Safety Systems Certification, the FSSC 22000 combines the ISO 22000 Food Safety Management Standard and Pre-Requisite Program (PRP) requirements along with some other requirements. Alone ISO 22000 was not sufficient to achieve GFSI recognition due to the weaknesses in the PRP (pre-requisite programs) content. As a result, a group of large multinational companies came together to write the PAS 220 (superseded by ISO/ TS22002-1), which focuses on covering the necessary PRPs. However, the GFSI required that there was an overall industry owned scheme that brought the two individual programs together, with an emphasis on regulatory and customer requirements. So the FSSC 22000 was developed. This combination in the form of the FSSC 22000 created a standard that is fully recognized by the GFSI and serves as an international benchmark for food safety.

Designed for food manufacturers who supply their products to major food retailers, or plan to do so, any manufacturer already certified against ISO 22000 only needs to be reviewed against ISO/ TS220002-1 PRPs for Food Safety Part 1 Food Manufacturing and the additional requirements to ensure they receive the GFSI-recognized certification.

The FSSC 22000 can be applied to a wide range of food manufacturing organizations, irrelevant of their size or the complexity of their food management processes. This includes manufacturers of perishable animal products, perishable vegetable products, products with a long shelf life, food ingredients, and chemical products for food manufacturing; but excludes technical and technological aids. The standard also covers food packaging material manufacturing. PRP requirements for this are covered by ISO/ TS 22002-4:2013 Pre-requisite programs on food safety – Part 4 Food packaging manufacturing.

The FSSC 22000 applies to organizations of various sizes and with varying complexity levels in terms of food management processes.

The requirements

The FSSC 22000 for food and ingredients manufacturing requires that each of the following are met:

- Food Safety Management System ISO 22000
- Pre-Requisite Programs ISO/ TS 22002-1

FSSC 22000 includes additional requirements:

Specifications for services

For all services that could have an impact on food safety (including utilities, transport and maintenance), organizations need to:

- Have specified requirements
- Describe the services in documents to the extent needed to conduct hazard analysis
- Ensure the services conform with the requirements of the technical specifications for sector PRPs

Supervision of personnel in application of food safety principle

Organizations need to ensure all personnel are applying the correct food safety principles and practices commensurate with activities.

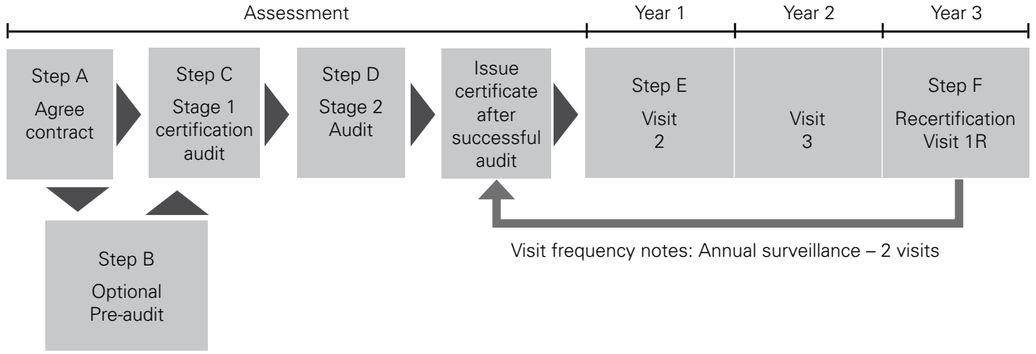
Specific regulatory requirements

Organizations seeking certification need to assure that specifications for ingredients and materials take account of any applicable regulatory requirements (e.g., control of prohibited substances).

Management of inputs

Organizations have to have a system in place to assure all inputs critical to product safety are fully assessed. The analyses need to be performed to standards equivalent to those described in ISO 17025.

FSSC 22000 & ISO 22000 certification processes



The benefits

Most of the major benefits of the FSSC 22000 relate to its comprehensiveness as a food safety management system standard. This is because:

- It provides a good framework against which an organization can develop its food safety management system, as it is not too prescriptive and has the flexibility to allow the organization to choose the best way to control its own system
- It includes comprehensive requirements taking an organization through the steps to conduct an effective HACCP study
- The standard promotes continuous improvement in food safety
- It targets its focus on food safety and legal compliance
- It easily integrates with an organization's existing management system or other systems in place, i.e., quality management systems, environmental management systems etc.
- It allows small, less structured organizations to implement an externally developed system
- Many major brands have adopted this system and standard, so it is beneficial for ingredients suppliers to be aligned with these customers.

Further to this, another major benefit of the FSSC 22000 is its acceptance by the European Cooperation for Accreditation (EA). This accreditation, which was awarded in October 2010, means that most accreditation bodies will now accept FSSC 22000.

The certification process

The FSSC 22000 certification process is identical to that for the ISO 22000 and consists of six steps:

- Step A – A proposal from the certification body is provided based on the size and nature of an organization. Once this is accepted the audit process can proceed.
- Step B – There is then an optional 'pre-audit' stage, which is often useful in identifying any weaknesses in systems and in building confidence before the formal audit.
- Step C – The first part of the formal audit is 'Stage 1 – Readiness Review'. This onsite audit evaluates the compliance of an organization's documented system with the requirements of the standard. As part of this, the audit ensures correctness and completeness of hazard identification, CCP determination, and that prerequisite programs are in place and appropriate to the business. After this stage the rest of the audit can be effectively planned and key elements of the system can undergo an initial examination. A report identifies any concerns or observed non-compliances so that immediate action can be taken prior to the Stage 2 audit.
- Step D – This is 'Stage 2' of the initial audit process. The audit includes interviews with employees and examination of records. Observation of working practices determines how compliant actual processes are with the standard and with an organization's own documentation system. At the end of this stage, the findings of the audit are presented along with other observations. Once the non-conformities have been successfully closed, a technical review of the audit will then be conducted by an authorized Certification Manager to confirm the issuance of a certificate.

Certificate details are added to the Foundation database.

- Step E – Surveillance visits are scheduled at twelve-month intervals. During the visits, addressing the past non-conformities and examining whether all parts of the system are in line with a provided audit plan.
- Step F – Shortly before the third anniversary of the initial certification, a routine visit is extended to enable a re-certification audit. Surveillance visits then continue as before, on a three-year cycle.

The International Features Standard (IFS)

Originally developed by an association of German retailers to serve as an alternative to BRCGS, French retailers and more recently Italian retailers both play an important role in the specifics and operation of the IFS. In parallel, all major retailers across Germany, France, Italy and many other EU countries require their supplier to comply with the IFS.

The IFS aims to provide a uniform quality assurance and food safety standard for retailer branded food products. Through a consistent evaluation system and uniform audit procedures, the standard generates transparency throughout the supply chain while ensuring regulatory requirements are met, and that retailers and wholesalers are protected against liabilities.

The IFS provides a range of integrated checks on food safety and quality in food processing companies. It covers all product ranges, offering certification across the whole range of food processing with the exception of agricultural primary production. The IFS covers the complete food supply chain with these related standards:

- IFS Food
- IFS Broker
- IFS Logistics
- IFS Cash and Carry Wholesales

The requirements

The audit assesses whether the elements of an organization's quality management system are documented, implemented, maintained and continuously approved. The elements that are examined are as follows:

- Governance and Commitment
  - Policy
  - Corporate Structure
  - Management Review
- Food Safety and Quality Management System
  - Quality Management
    - Document Management
    - Records and Documented Information
    - Record Keeping
  - Food Safety Management
    - HACCP Plan
    - HACCP Team
    - HACCP Analysis

- Resource Management
- Human Resources
  - Personal Hygiene
- Training and Instruction
- Sanitary Facilities, Equipment for Personal Hygiene and Staff Facilities

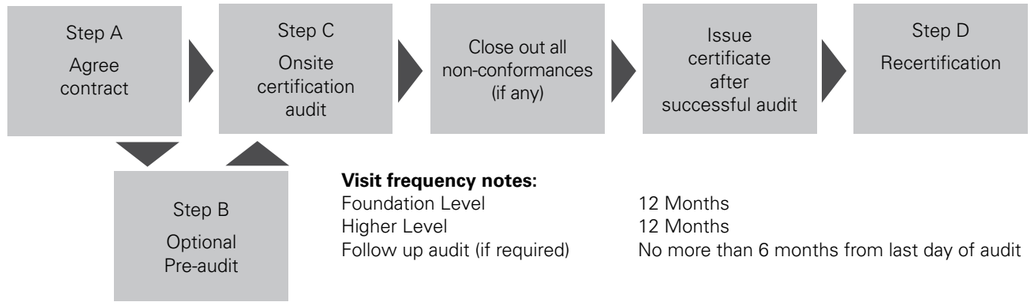
▸ Operational Processes

- Customer Focus and Contract Agreement
- Specifications and Formulas
- Product Development/Product Modification/ Modification of Production Processes
- Purchasing and Food Fraud Mitigation
- Product Packaging
- Factory Location
- Factory Exterior
- Plant Layout and Process Flows
- Production and Storage Premises
- Constructional Requirements
- Walls
- Floors
- Ceilings / Overheads
- Windows and Other Openings
- Doors and Gates
- Lighting
- Air Conditioning / Ventilation
- Water
- Compressed Air and Gases
- Cleaning and Disinfection
- Waste Management
- Foreign Material Risk Mitigation
- Pest Monitoring and Control
- Receipt and Storage of Goods
- Transport
- Maintenance and Repair
- Equipment
- Traceability
- Allergen Risk Mitigation
- Food Fraud
- Food Defense

▸ Measurements, Analyses, Improvements

- Internal Audits
- Site Factory Inspections
- Process Validation and Control
- Calibration, Adjustment and Checking of Measuring and Monitoring Devices
- Quantity Control Monitoring
- Product Testing and Environmental Monitoring
- Product Release
- Management of Complaints from Authorities and Customers
- Management of Product Recalls, Product Withdrawals, and Incidents
- Management of Non-Conforming Products
- Management of Deviations, Non-Conformities, Corrections, and Corrective Actions

IFS certification process



Visit frequency notes:

Foundation Level	12 Months
Higher Level	12 Months
Follow up audit (if required)	No more than 6 months from last day of audit

The benefits

There are a number of benefits to IFS certification, including:

- The IFS has a simple certification process which only requires an onsite audit (there is no requirement for a desk study step)
- The standard has a focus on quality, food safety and legality
- The IFS has a global network of strategically placed offices covering Europe, the Americas, and Asia, supporting retailers, suppliers and certification bodies with operational, training and business development
- Suppliers are given a 12-month period to make corrective actions (when not directly related to food safety or regulatory compliance) allowing for budget planning and continuous improvements
- Safety and Quality certification are both covered in one audit saving money by reducing the potential for further audits
- Some of the IFS criteria are risk-based and less prescriptive than other standards
- The IFS Audit Portal is both a database, and a reporting and notification tool
- The IFS offers an Integrity Program providing Quality Assurance and a formal Complaint Management System for retailer confidence

IFS have introduced optional unannounced audits.

The certification process

The IFS has two levels of certification:

- Foundation
- Higher Level

The certification process consists of four steps and excludes a desk study stage in advance of the onsite audit:

- Step A – A proposal is provided based on the size and nature of an organization. Once this is accepted the audit process can proceed.
- Step B – There is then an optional ‘pre-audit’ stage, which is often useful in identifying any weaknesses in systems and in building confidence before the formal audit. The same auditor cannot be used for both the pre-audit and the formal audit.
- Step C - The formal audit is an onsite audit. All parts of the site and process covered in the scope are assessed to determine compliance with every clause of the standard. Organizations receive a Corrective Action Report at the end of this audit, identifying any observed non-conformities. Once the non-conformities have been addressed and the auditor has accepted the corrections, an independent technical review of the audit is conducted by an authorized Certification Manager who approves the issuance of a certificate.
- Step D – The certificate is valid for one year, so a full recertification audit is scheduled for twelve- months later. The audit is full re-audit conducted in the same way as the initial audit, but the implementation of the action plan is also reviewed and past non-conformities are addressed.

Safe Quality Food (SQF) Code

The SQF Code covers the entire food supply chain from food manufacturing, ingredient manufacturing, packaging, distribution, and primary production. Developed in Western Australia, but now owned by the Food Marketing Institute (FMI) in the USA, the scheme aims to meet the needs of buyers and suppliers worldwide. In 2012, the Safe Quality Food Institute combined the SQF 1000 and SQF 2000 codes in a single SQF Code, which includes modules that cover the scope requirements of all industries.

The SQF Code certifies that a supplier's food safety and quality management system complies with international and domestic food safety regulations. As the SQF Code incorporates the complete supply chain, suppliers can assure their customers that food has been produced, processed, prepared and handled to the highest possible standards at every step of the way.

The SQF Code offers multiple options of certification that include Food Safety, Quality, or a combination.

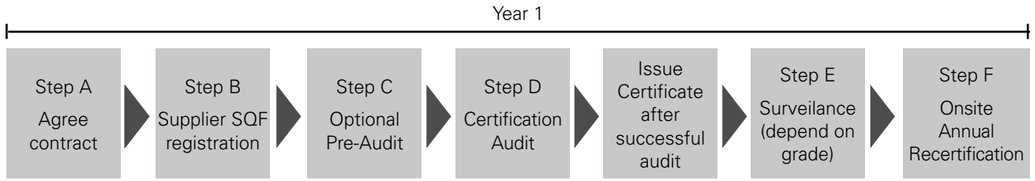
The requirements

The SQF Code requires a combination of SQF system elements and food safety fundamentals based on product category.

The SQF code covers the complete supply chain, ensuring food and quality management systems meet regulations.

Food categories	Requirements module
1 Production, Capture and Harvesting of Livestock and Game Animals, and Apiculture	*Food Safety Code for Primary Animal Production* Module 2: System Elements Module 5: GAP for farming of animal products
2 Indoor Growing and Harvesting of Fresh Produce and Sprouted Seed Crops	*Food Safety Code for Primary Plant Production* Module 2: System elements Module 18: GAP for Indoor Farming of Plant Products
3 Growing and Production of Fresh Produce and Nuts	*Food Safety Code for Primary Plant Production* Module 2: System elements Module 7: GAP for Outdoor Farming of Plant Products
4 Fresh Produce, Grain, and Nut Packhouse Operations	*Food Safety Code for Primary Plant Production* Module 2: System Elements Module 10: GMP for Pre-Processing of Plant Products
5 Extensive Broad Acre Agriculture Operations	*Food Safety Code for Primary Plant Production* Module 2: System elements Module 8: GAP for farming of grains and pulses
6 Intensive Farming of Fish	*Food Safety Code for Aquaculture* Module 2: System Elements Module 6: GAP for Farming of Seafood
7 Slaughterhouse, Boning and Butchery Operations	*Food Safety Code for Animal Product Manufacturing* Module 2: System Elements Module 9: GMP for Processing of Animal Products
8 Manufacturing of Meats and Poultry	*Food Safety Code for Animal Product Manufacturing* Module 2: System Elements Module 9: GMP for Processing of Animal Products
9 Seafood Processing	*Food Safety Code for Animal Product Manufacturing* Module 2: System Elements Module 9: GMP for Processing of Animal Products
10 Dairy Food Processing	*Food Safety Code for Food Manufacturing* Module 2: System elements Module 11: GMP for processing of food products
11 Honey Processing	
12 Egg Processing	
13 Bakery and Snack Food Processing	
14 Fruit, Vegetable, and Nut Processing, and Fruit Juices	
15 Canning, Pasteurising, UHT and Aseptic Operations	
16 Ice, Drink and Beverage Processing	
17 Confectionary Manufacturing	
18 Preserved Foods Manufacture	
19 Food Ingredient Manufacture	
20 Recipe Meals Manufacture	
21 Oils, Fats, and the Manufacture of Oil or Fat-based Spreads	
22 Processing of Cereal Grains	
25 Repackaging of Products Not Manufactured On Site	
26 Storage and Distribution	*Food Safety Code for Storage and Distribution* Module 2: System elements Module 12: GDP for Transport and Distribution of Food Products
27 Manufacture of Food Packaging Materials	*Food Safety Code for Food Packaging Materials* Module 2: System elements Module 13: GMP for Manufacture of Food Packaging
31 Dietary Supplements Manufacturing	*Food Safety Code for Dietary Supplement Manufacturing* Module 2: System Elements Module 17: GMP for Processing of Dietary Supplements
32 Pet Food Manufacturing	*Food Safety Code for Pet Food Manufacturing* Module 2: System Elements Module 4: GMP for Processing of Pet Products
34 Manufacture of Animal Feeds	*Food Safety Code for Animal Feed Manufacturing* Module 2: System elements Module 4: GMP for Animal Feed Production

SQF certification process



Module 2: system elements (mandatory for all SQF code certifications)

- Management Policy
- Management Responsibility
- Management Review
- Food Safety and Quality Management System
- Document Control
- Records
- Food Legislation
- Food Safety Fundamentals
- Food Safety Plan (level 2 and 3)
- Food Quality Plan (at level 3)
- Product Release
- Validation and Effectiveness
- Verification and Monitoring
- Corrective and Preventative Action
- Internal Audit
- Product Identification
- Product Trace
- Product Withdrawal and Recall
- Food Defense
- Training Program

Subsequent modules are specific to the group covering the Food Safety Fundamentals and Pre-Requisite Programs, for example:

The benefits

Certifying an organization's food management system against the SQF code requirements brings the following benefits:

- Enhancement of the organization's Food Safety Management System
- Certification demonstrates commitment to producing and trading safe food
- An increase in consumer confidence of the products produced
- Brand equity is enhanced
- Certification prepares organizations for inspection by regulatory authorities and other stakeholders
- An improvement in new market and customer prospects
- Achieving certification to the SQF Quality Code enables organizations to use the SQF Shield on their products
- Unannounced audits are mandatory. One out of three certification audits has to be unannounced.

The certification process

The SQF certification process covers a combination of both desk research and an onsite audit and consists of seven steps:

- Step A – A proposal is provided based on the size and nature of an organization. Once this is

accepted the audit process can proceed.

- Step B – Once an organization has accepted the proposal, registration must take place on the SQFI website (www.sqfi.com).
- Step C – There is then an optional 'gap-analysis' stage assessing an organization's readiness for the audit. This is often useful in identifying any weaknesses in systems and in building confidence before the formal audit.
- Step D – Certification Audit' of the initial audit process. The audit includes interviews with employees and examination of records. Observation of an organization's working practices determines how compliant its actual processes are with the standard and with its documentation system. At the end of this stage, the findings of the audit along with other observations and opportunities for improvement are presented to the organization. Once all non- conformities have been addressed a technical review of the audit is conducted by an authorized Certification Manager to confirm the issuance of a certificate. The organization's status is then reflected on the public search facility of the SQFI website.
- Step E – Surveillance visits are scheduled at six-month intervals if a Grade 'C' is received during the certification audit. During the visits the implementation of the action plan addressing the past non-conformities is reviewed and mandatory other selected parts of the system are examined.
- Step F – Recertification audits are scheduled at twelve-month intervals. The Recertification audit is undertaken to verify the continued effectiveness of an organization's SQF System in its entirety.

Best Aquaculture Practices Standards (BAP)

The Global Seafood Alliance (GSA), formerly known as the Global Aquaculture Alliance (GAA), is an international non-profit organization founded in 1997 whose mission is to promote responsible practices across the seafood industry. Through the development of its Best Aquaculture Practices (BAP) and Best Seafood Practices (BSP) certification programs, GSA has become a leading standards-setting organization for seafood. BAP certification applies to aquaculture farms, hatcheries, processing plants, and feed mills. The BSP program manages certification against GSA's Seafood Processing Standard (SPS) and the GSA's Responsible Fishing Vessel Standard (RFVS) for wild-caught seafood processing facilities and/or fishing vessels. BAP and BSP certification covers the most important elements of responsible aquaculture and provides quantitative guidelines so that compliance can be measured. The standards spread across every type of organization in the seafood supply chain from hatchery and feed mill, to farm and processing plant.

Global Red Meat Standard

The Danish Agriculture and Food Council, in co-operation with the Danish Co-operative of Slaughterhouses and the Danish Meat Institute, developed the Global Red Meat Standard (GRMS). This scheme is specifically for the meat industry and aims to deliver EN45011 certified standards through an auditing program. The standard covers all aspects of transport, lairage, stunning, slaughtering, deboning, cutting and handling of meat and meat products. The standard assesses: buildings; external areas; process layout and equipment; product handling; process management and production monitoring; dispatch and external storage; cleaning programs; traceability; product recall procedures; non-conformance procedures; product specifications; measuring equipment; complaints procedures; HACCP system; internal audit; purchasing; sales; quality management systems; management responsibilities; personnel, visitors and external labor; and training.

Primary production schemes

CanadaGAP

The CanadaGAP (Good Agricultural Practices) standard is owned by the Canadian Horticultural Council and is essentially an On-Farm Food Safety (OFFS) Program. It combines national food safety standards with a certification system for the safe production, storage and packing of fresh fruits and vegetables.

The program is aimed at producers, packers and storage intermediaries of horticultural crops and has been designed to help them implement food safety procedures into their operations. It is crop specific, laying out six differing sets of Good Agricultural Practices (GAP) that have been developed by the horticultural industry and technically verified by Canadian government officials. Each set of practices is based on the seven basic principles of HACCP and is recognized by the GFSI.

By achieving certification, a primary producer can prove to their customers that they have the systems and procedures in place to minimize the risk of contamination to the product produced. As part of this the auditor gains evidence that an ongoing, maintained food safety system is present within an organization's operations.

GLOBALG.A.P.

GLOBALG.A.P. promotes Good Agricultural Practices (GAPs) and as such is committed to supporting food safety and sustainability in the agricultural, livestock and aquaculture supply chains. Compliance with GLOBALG.A.P. standards ensures that food products are safe and farmed or raised in a sustainable manner. This means the environmental impacts of farming operations are minimized, chemical inputs are reduced and that through every aspect of the production process worker health and safety and animal welfare have been considered.

The GLOBALG.A.P. standard brings together the needs of agricultural producers and retailers. It covers all aspects of the production and packing process up to the farm gate. This includes feed, seeds and all the farming activities to the point at which the product leaves the site. It has become a key point of reference for GAPs.

The Integrated Farm Assurance is also part of the standard. This covers fresh fruit and vegetables, flowers and ornamentals, combinable crops, livestock, dairy, pigs, poultry, tea, coffee and aquaculture. Further to this, the standard also includes chain of custody, plant propagation material, compound feed manufacture and social practices on farms.

Members of GLOBALG.A.P. are made up of farmers, ranchers, product marketing organizations, grower's co-operatives, food manufacturers and retailers. The standard and the certification is approved by the Technical and Standards Committees for each product sector: crops; livestock; and aquaculture. These committees are supported by FoodPLUS, which is the GLOBALG.A.P. secretariat based in Germany.

The Requirements

The standard is separated into four different categories:

- The GLOBALG.A.P. Integrated Farm Assurance Standard (IFA)
- The GLOBALG.A.P. Compound Feed Manufacturer Standard (CFM)
- The GLOBALG.A.P. Plant Propagation Material Standard (PPM)
- The GLOBALG.A.P. Risk Assessment on Social Practice (GRASP)

Across all category scopes the GLOBALG.A.P. General Regulations provide an overarching set of principles. Each scope then has its own set of individual requirements that organizations are assessed against.The standard combines the applicable elements from the documents listed below to make a package relevant to an individual organization's business practices:

- System rules referred to as General Regulations (Gen Regs)
- GLOBALG.A.P. scope requirements referred to as Control Points and Compliance Criteria (CPCC)
- Inspection documents referred to as Checklists (CL)
- National GAP requirements referred to as Approved National Interpretation Guidelines
- Guidelines and Supporting documents
- Harmonization tools referred to as Benchmarking Cross Reference Checklist (BMCL) where applicable

GLOBALG.A.P supports food safety and sustainability in the agricultural, livestock and aquaculture supply chains.

All farm base module

- Site History and Site Management
- Record Keeping and Internal Self- Assessment/ Internal Inspection
- Workers Health, Safety and Welfare
- Subcontractors
- Waste and Pollution Management, Recycling and Re-Use
- Environment and Conservation
- Complaints
- Recall/ Withdrawal Procedure
- Food Defense (not applicable for flowers and ornamentals)
- GLOBALG.A.P. Status
- Logo Use
- Traceability and Segregation (obligatory when producer is registered for parallel/production/ parallel ownership)

Applies to: all categories

Crops base module

- Traceability
- Propagation Material
- Site History and Site Management
- Soil Management
- Fertilizer Application
- Irrigation/Fertigation
- Integrated Pest Management
- Plant Protection Products
- Equipment

Applies to: fruit and vegetables; combinable crops; plant propagation; green coffee; and tea.

Livestock base

Site

- Worker Health, Safety and Welfare
- Livestock Sourcing, Identification and Traceability
- Livestock Feed and Water
- Livestock Housing and Facilities
- Livestock Health
- Medicines
- Fallen Stock Disposal
- Livestock Dispatch

Applies to: ruminant base (cattle and sheep); dairy; calf/ young beef; pig; poultry; and turkey.

Aquaculture module

- Site Management
- Reproduction
- Chemicals
- Occupational Health and Safety
- Fish Welfare, Management and Husbandry
- Harvesting
- Sampling and Testing
- Feed Management
- Pest Control
- Environmental and Biodiversity Management
- Water Usage and Disposal
- Post-Harvest – Mass Balance and Traceability
- Post-Harvest – Operations
- Social Criteria

The benefits

Certifying On-Farm Management Systems against the GLOBALG.A.P. requirements provides an organization with the following benefits:

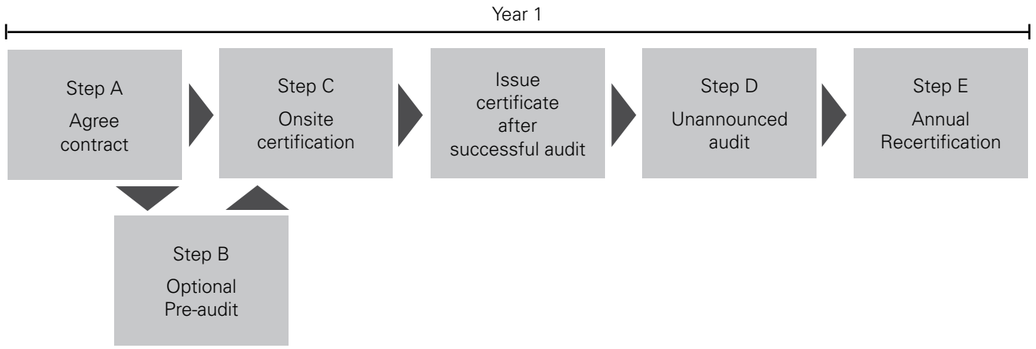
- Enhanced On-Farm Food Safety Management Systems
- Demonstrates Commitment to Producing or Trading Safe Food
- Leads to Acceptance into the GLOBALG.A.P. Community
- Increases Consumer and Customer Confidence in Product Safety and Quality

The certification process

The GLOBALG.A.P certification process consists of five steps:

- Step A – A proposal is provided based on the size and nature of an organization. Once this is accepted the organization is registered on the GLOBALG.A.P. database and issued with a unique 13-digit number (GGN). At this point, the audit process can proceed.
- Step B – There is then an optional 'gap-analysis' stage assessing an organization's readiness for the audit. This is often useful in identifying any weaknesses in systems and in building confidence before the formal audit.

GLOBALG.A.P. certification process



- Step C – This Assessment Process: 'Certification Audit' includes interviews with employees and examination of records. Observation of an organization's working practices and environment determines how compliant its actual processes are with the standard and with its own documentation system. At the end of this stage, the findings of the audit along with other observations and opportunities for improvement are presented to the organization. Once 100% of major non-conformities and 95% of minor non-conformities have been addressed a technical review of the audit is conducted by an authorized

  Certification Manager to confirm the issuance of a certificate. This status and details on the approved product are then reflected on the public search facility of the GLOBALG.A.P. website.

- Step D – Unannounced Audits are required for:
  - Individual Grower Certification (depending on certification body, sampling 10% of all certificates issued by certification body)
  - Group Certification (mandatory)

During these visits, the implementation of standard maintenance is reviewed.

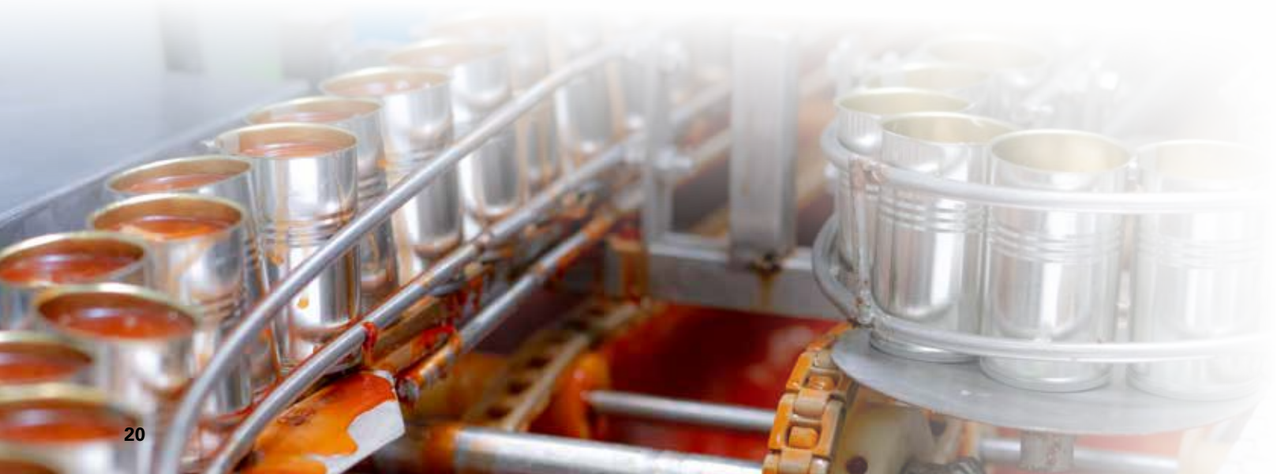
- Step E – Full recertification audits are scheduled at twelve-month intervals. At the same time, implementation of the action plan to address the past non-conformities is re-viewed. All elements of the system are examined to ensure they are in line with an audit plan provided before each visit.

Primary and manufacturing schemes

PrimusGFS

The PrimusGFS standard focuses on the food safety of agricultural products designated for human consumption in their fresh or in a minimally processed way. PrimusGFS establishes a series of requirements for managing the production, handling, processing and storing operations, which should be met for consumer safety.

The PrimusGFS scheme covers the full supply chain, from pre- to post-farm gate production, with an integrated supply chain approach. It is a voluntary worldwide certification scheme certifying agricultural sector products. It sets minimum acceptable levels in relation to each of the requirements it includes.



IV. A comparison of the GFSI-recognized schemes

Each scheme has a number of similarities. To be GFSI approved, the GFSI requirements have to be met. Although exact details can vary from scheme-to-scheme, and there may also be a number of other elements built in to make a scheme specific fit a certain purpose or industry sector, the most all-encompassing schemes are the FSSC 22000 standard, BRCGS, the SQF standard and the IFS. These are compared in more detail below.

Structural overview of FSSC 22000, BRCGS, SQF and IFS standards

How the GFSI requirements are covered in the key global food safety standards:

GFSI requirements	FSSC 22000	BRCGS	SQF	IFS
Food safety management system	Food Safety Management System	Food Safety and Quality Management System	Food safety Management System	Quality and Food Safety Management System
	Management Responsibility and Food Safety Culture	Senior Management Commitment and Continual Improvement including Food Safety Culture	Management Commitment and Food Safety Culture	Senior Management Responsibility and Food Safety Culture
	Management of Resources	Personnel	Management Responsibility, Training	Resource Management
	Planning and Realization of Safe Products	Food Safety and Quality Management System, Product Control	Specification and Product Development	Planning and Production Process
	Management of Purchased Material, Product Information, Food Defense	Supplier and Raw Material Approval and Performance Monitoring, Product Design, Security	Food Defense, Incoming Goods and Services, Food Safety Plan	Food Defense, Purchasing, Product Development
	Validation, Verification and Improvement of the FSMS	Internal Audit, Corrective and Preventive Action, Calibration	Verification, Corrective and Preventive Action, Calibration of Equipment	Measurement, Analysis and Improvement
Good practice requirements	Planning and Realization of Safe Products and ISO/ TS22002-1 Pre-Requisite Program Requirements	Site Standard, Product Control, Process Control, Personnel	Identify Preserved Food, Product ID, Trace and Withdraw, Food Safety Fundamental	Resources Management, Planning and Production Process
Hazard analysis and critical control point (HACCP)	Planning and Realization of Safe Products, Validation, Verification and Improvement of the FSMS	Food Safety Plan HACCP	Food Safety Plan	Food Safety Management

A section-by-section comparison of the key schemes

General requirements

The general requirements for all schemes are similar in that they require a competently implemented, regularly evaluated, continually improved, HACCP- based food safety management system.

Food safety policy

All schemes require a food safety policy that covers the scope of business activities. This policy should involve the implementation of a HACCP-based food safety system that complies with regulatory/customer requirements, is internally audited, continually improved, commitment to food safety culture, and effectively communicated to company personnel. This policy must be supported within the organization and measurable objectives need to be set and tracked. The IFS scheme specifically requires the inclusion of environmental and social responsibility, while the BRCGS scheme requires that an organization's policy include a provision to ensure that food safety system certification does not expire and that the organization has a copy of the current issue of the BRCGS for Food Safety.

Food safety manual

All schemes require a food safety manual or a documented system to be in place that covers or references procedures that control significant food safety hazards. None of the schemes are specific about the title or format of such documentation, just that it exists.

Management commitment/responsibility

All schemes require an organizational chart and job descriptions to be in place. They all place great emphasis on management commitment to implement and maintain an effective, continually upgraded food safety system demonstrated through regularly scheduled management review meetings, business continuity planning, establishment of effective channels for internal/external communication and the appointment of a food safety team and leader. For BRCGS there is no specific leader required but the responsibilities for management of activities that ensure food safety, legality and quality shall be clearly allocated. The team leader/management must be responsible for developing, implementing and communicating the elements of the food safety management system to company personnel and must have the authority to act on management's behalf on food safety issues. The SQF scheme calls the team leader the 'SQF Practitioner' and specifically requires that this individual be a full-time employee of the company, be trained in HACCP principles and is able to demonstrate a working knowledge of the SQF code requirements.
The SQF scheme also requires that the organizational structure within the company be communicated to all staff. The BRCGS scheme specifically requires that the most senior production or operations manager onsite must attend the opening and closing meetings of the certification audit for the Global Standard for Food Safety. Also required is that the relevant Departmental managers are available throughout the audit process and senior management must also ensure all non-conformities that were identified at the previous audit against the standard are effectively actioned.

Management review

All schemes require senior management to review at pre-arranged intervals the verification of the food safety management system and HACCP plan to ensure its continuing suitability, adequacy and effectiveness. Review of the food safety system is also required in the event of any change that could affect food safety. More specifically, the IFS scheme requires that the management review includes: buildings; supply systems; equipment and transport; staff facilities; environmental conditions; safety and security at work; hygienic condition; and workplace design and external influences (e.g., noise, vibration). The IFS also requires that the result of the review is included in subsequent budgeting. The BRCGS scheme requires that the review process includes: previous management review documents; action plans/time frames; customer complaints; results of any customer performance reviews; incidents; corrective actions; out-of- specification results; non-conforming material; review of the management of the HACCP system; and resource requirements. The SQF scheme requires the review to include: policies; internal and external audit findings; corrective action; and customer complaints.Records of amended documents, validation and changes to the SQF system also need to be maintained.

Resource management

All schemes require that senior management provide adequate resources to ensure that the food safety management system continues to be effective in meeting regulatory and customer requirements, including responsibility for competent provision of outsourced services or activities.

Documentation

All schemes require documented procedures to demonstrate conformance with the specified scheme requirements and records to demonstrate the effective control of processes and food safety management. Customer and supplier related specifications related to food safety must also be controlled. Requirements include verified issuance and consistent versions, as well as secure storage of such documents in a manner that allows them to be accessible for a retention time that meets customer and legal requirements. BRC requires that electronic records be backed up and both the BRC and SQF schemes require that documents are in a language or languages spoken by the organization's staff and that they are sufficiently detailed.

All the schemes require a competently implemented and continuously evaluated and improved HACCP-based food safety management system.

Specifications

All schemes require documented specifications for all items and services (including utilities, transport and maintenance) purchased or provided which have an effect on product safety and that a regular review process is in place to ensure these specifications are kept up to date.

Internal audit

All schemes require the organization to have an internal audit system in place that covers all systems and procedures critical to product safety and all applicable elements of the scheme. The internal audits cover all areas and take into account the risks associated with each activity. Audits must be carried out at least once a year, by trained personnel independent of the activities audited, with documented results and prompt follow-up to correct any identified non-conformities. The IFS scheme states examples of verification activities, including analysis, sampling, and evaluation. The BRCGS scheme states that examples of verification activities include a review of records where acceptable limits have been exceeded, review of incidents of product withdrawal or recall. BRCGS also requires documented inspections of the factory environment and processing equipment. The SQF scheme requires that an internal audit schedule is in place, describing the verification activities, their frequency of completion and the person responsible for each activity.

Corrective action

All schemes require that the organization has documented, securely stored, accessible procedures in place for the determination and implementation of timely, verified corrective action in the event of any non-conformity relating to product safety. The corrective action must include actions to bring the process back under control and to prevent recurrence of the non-conformity and should identify and address the root cause of the issue.

Control of non-conforming product

All schemes require that the organization has documented, securely stored, accessible procedures in place to ensure that any product that does not conform to food safety requirements is clearly identified and controlled to prevent unintended use or delivery.

Product release

All schemes require that the organization has appropriate procedures in place to ensure that food safety requirements are adequately met prior to product release.

Purchasing and supplier approval/ monitoring

All schemes require that the organization controls purchasing processes to ensure that all externally sourced items conform to food safety requirements and that procedures are in place for approval and continued monitoring of its suppliers. The results of supplier evaluations and follow up actions must be recorded. The BRCGS scheme includes additional requirements for risk assessment of raw materials to identify potential risks. The assessment forms the basis for raw material acceptance and testing procedure and the processes used for supplier approval and monitoring. In addition, specific control (including a site audit) is required where an intermediate process step is sub-contracted to a third party or other company site.

Traceability

All schemes require procedures to be in place to identify all lots of raw materials and packaging from receipt through in-process status to finished product and at a minimum to the next level of distribution. Traceability requires testing annually with results documented and used to improve the process when results do not fall within acceptable tolerance levels. The BRCGS requires that mass balance can be demonstrated and that traceability is achievable within 4 hours.

Complaint handling

All schemes require that the organization implements an effective system for the management of complaints related to food safety, including action to prevent recurrence of the problem and identification of root cause.

Incident management/business continuity

All schemes require that the organization has an effective incident management procedure in place that is tested at least annually and covers contingency planning for business continuity as well as plans for product withdrawal and product recall if warranted by investigation. BRCGS and FSSC require that the Certification Body is informed of product recalls within three working days of the event occurring. SQF requires that SQFI and the Certification Body are informed within 24 hours of a reportable food safety incident.

Calibration

All schemes require that the organization identifies measuring and monitoring devices required to assure product safety and has methods in place to ensure these devices are calibrated against a recognized standard.

Product testing and analysis

All schemes require that the organization implements a system to ensure that finished product/ingredient analyses critical to the confirmation of conformity to critical food safety parameters is performed to standards equivalent to ISO 17025 and that this analysis is done frequently enough to optimize food safety.

Good manufacturing practices (GMPs) and pre-requisite programs (PRPs)

All schemes require the organization to have effective PRPs in place, with regularly scheduled monitoring, documented corrective actions in response to non-conformities and verification of activities key to food safety control. PRPs include control of: facility exterior/interior (materials and structural integrity); layout/product/ utility/personnel flow; staff facilities; equipment design/maintenance; risk of biological/chemical/physical contamination (including allergen control); storage and transport (including temperature control in storage and transport); stock rotation; sanitation/ cleaning; pest management; water quality; waste handling; personnel hygiene/training/evaluation; labelling; facility security; food defense; traceability and recall procedures. The schemes detail specific requirements for each group of pre-requisites that need to be complied with. All schemes also have requirements for enhanced hygiene, apparel and personnel flow control in high-risk areas. Some schemes have very specific requirements for such areas that can be individually researched (e.g., the BRCGS requirement for physical separation and apparel control) but most PRP requirements are common to all food processor schemes recognized by the GFSI.

HACCP

A competent HACCP process for food safety control is a mandatory requirement for all GFSI food processor approved schemes. The HACCP should be based on the Codex Alimentarius principles. This process includes five preliminary steps to HACCP:

- Establishment of a Multi-Departmental Food Safety/ HACCP Team
- Descriptions of Key Food Safety Characteristics of Finished Products
- Characteristics of Raw Materials (including sources)
- Creation/ Verification of Process Flow Diagrams (including water treatment/utility in feeds and waste/ rework flow)
- Creation/ Verification of Plant Schematics

The HACCP principles are also mandated by all schemes. These cover:

- Research and Identification of Food Safety Hazards Associated with Ingredients
- Process Aids/Non-Food chemicals
- Equipment
- Packaging and Process Steps (including supplier level, controllable customer level and transport generated hazards)
- Identification of Control Measures for Each Hazard
- Establishment of Critical Control Points (CCPs) and/or Operational
- Pre-Requisite Programs (PRPs are the intermediate level of control between general PRP controls and very strict CCPs)

For each CCP a HACCP plan is required. The HACCP plan must include the critical limits for each control measure; responsibility and the frequency of monitoring these limits; deviation procedures/corrective actions to be taken whenever critical limit non- conformity occurs; and responsibility and frequency of significant task verification; and records associated with each CCP (including corrective action records). Each scheme phrases these requirements in their own terms but the essential requirements are common to all.

Validation, verification and continual improvement

All schemes require that the organization provides evidence that they have validated the assumptions and effectiveness of controls within the food safety management system. Records of validation should be available. They also require that the organization plans verification activities, both routine (e.g., next day record review) and complete system verification (including sampling of records for each significant food safety task, procedure/HACCP plan review, key personnel interviews/ evaluation and on-site verification of operations). Verification planning must establish measures/ schedules to maintain the effectiveness of the food safety management system and must include all aspects of the applicable scheme, including management review, supplier related activities, PRPs, preliminary steps, HACCP activities/ studies and continual improvement. The results of verification must be analyzed for trends and submitted to management review and must be used to continually improve the food safety management system. Revalidation is required in the event of any changes that could impact food safety. Management must ensure that measures/ personnel are in place to regularly research changes to information, regulations and customer requirements and they are brought to the attention of management in order to upgrade the food safety management system and maintain its effectiveness. While the BRCGS and FSSC 22000 schemes provide more specific details on validation/verification requirements, all schemes imply or include the elements discussed in this section.

What an organization should consider when choosing a scheme

The most important thing an organization needs to consider when choosing a GFSI-recognized food safety scheme is making sure there is the perfect match between the scheme and the organization. While each scheme meets the benchmark requirements of the GFSI, they do it through an individual approach. At the heart of the decision as to which scheme is best for a particular organization is having a clear understanding of the customer and regulatory requirements that affect the organization's business and therefore need to be covered by the chosen audit. This is a research task for the organization and once fully understood, even ahead of choosing the audit, the organization should develop and put in place its own food safety system. Once the organization is confident that its system is sufficiently robust and that it can stand up to validation and auditing, the appropriate audit can be chosen to match.

The regulations and the internal food safety system can be cross-referenced against each of the GFSI-recognized schemes. By doing this, the organization can view the areas of 'fit' with each scheme available. Fundamental to choosing the right scheme is ensuring that the audit information extracted from the organization's operations is extensive, exhaustive and reliable.Only by providing accurate information to an auditing body is it possible to get true value from an auditing procedure.

It is unlikely that when an organization cross-references its requirements with each of the schemes that there will be one scheme that has the overall best fit. Instead, it may be that one scheme is best for one element while anotheris best for other elements. For organizations where this is the case, it is possible to audit against a combination of integrated audits to ensure that the appropriate parts of each are covered while gaining certification against each of them. This is known as a Customized Single Audit solution.

Comparing the standards

Subject	BRCGS	IFS	SQF	FSSC 22000
System requirements	Quality, Legality, Authenticity, and food safety	Quality, Legal, and food safety	SQF	Food Safety
System establishment and implementation	Prescriptive requirements	Prescriptive requirements	Prescriptive requirements	Provide framework requirements for the company to demonstrate how to comply and demonstrate their food safety system
Report/data management	By Certification body and Standard owner	By Certification body and Standard owner	By Certification body and Standard owner	By Certification body and Standard owner
Certification process	No stage 1 - Company can easily go direct to on site certification audit	No stage 1 - Company can easily go direct to on site certification audit	No stage 1 - Company can easily go direct to on site certification audit	Stage 1 on site Stage 2 on site
Closing out NCs	Root cause analysis and objective evidence must be submitted within 28 days (Majors and Minors)	Deviations need objective evidence submitted to prove correction has been conducted. Majors require a revisit to the site to ensure closure.	Root cause analysis and objective evidence must be submitted within 30 days (Majors and Minors)	Critical or majors from stage 1 have to be closed out during Stage 2 audit. Action plan for minors Majors and Criticals have to be closed with objective evidence before Certification granted
Certificate validity	Certificate valid for 1 year Grade C-Recertification within 6 months	Certificate valid for 1 year	Certificate valid for 1 year Grade C-Surveillance within 6 months	Certificate valid for 3 years Full Surveillance Annually
Integrated audit	As recertification is depending on the result of the audit (grade C need to be 6 months so interval or integrated condition will be changed depending	Not allow integrated with ISO management system standard, allow integrated with product certification scheme	Different management system structure but possible for integrated audit	Same management system structure as ISO standard so it is easily to integrate with other management system standards
Recertification/ maintenance visit	Same audit time as Certification visit	Same audit time as Certification visit	Same audit time as Certification audit	Less audit time than Stage 2 on-site but more during Recertification
Certification mark	Not allowed to be displayed on the product	Not allowed to be displayed on the product	SQF Quality Code Shield can be used as marketing	Not allowed to be displayed on the product
Scheme Ownership	Private equity for profit with fee required for each audit	Not for profit foundation with a fee required for each audit	Not for profit foundation with a fee required for each audit	Not for profit foundation with a fee required annually

V. Combining GFSI-recognized schemes with those related to the environment, health & safety and quality

Achieving a GFSI approved food safety certification is just one of the many certifications that an organization operating in the food industry needs be able to prove it holds. In addition to the many different international standards in the area of food safety and quality management, there are also certifications for environmental and health & safety systems that are required. Further to this, organizations often need audits relating to the specific requirements of their operations. To manage each of the required audits and certifications individually can be a time consuming and costly process. Added to this, the audits frequently cover similar areas, so an individual area of an organization's operations may find that it is constantly embarking on periods of auditing if each audit is performed separately.

A Customized Single Food Audit can combine both the GFSI-recognized audits that are most appropriate with the environmental and health & safety audits the organization requires.

This eliminates the issue of more than one audit system being required to cover an organization's operations. For example, at the same time as an organization is audited for the GFSI-recognized standard it can also be audited against ISO 9001, ISO 14001 and ISO 45001.

VI. Stepping stone: moving towards becoming certified to a GFSI-recognized standard

As an increasingly larger part of the industry is adopting GFSI-recognized certification, there is a need to support businesses in the development of food safety management systems to allow an easier transition towards a GFSI-recognized certification. The Foundation for Food Safety System Certification (FSSC) launched its Development Program, providing an assessment model that's aligned with the Codex General Principles of Food Hygiene, GFSI Global Markets and the FSSC 22000 structure. The FSSC Development Program offers a series of clear steps to develop a food safety management system. It also provides a clear pathway for organizations to achieve ful FSSC certification in the future. The program is split into two levels of unaccredited assessments, the quality of these assessments is monitored by the FSSC Foundation through their Integrity Program. Companies that are found to conform to the program's standards are then listed on the FSSC's publicly available register. Once conforming, the company can decide whether to remain at a certain level or to proceed to a next level or full FSSC 22000 certification. Depending on the size of your business, the assessment can take anywhere from one to three days and there are no additional scheme owner fees.

VII. Conclusion

Certifying an organization against the requirements of a GFSI-recognized scheme means it is prepared to meet the growing global customer requirements and demonstrate its diligent focus on food safety system management. All GFSI-recognized schemes demand senior management commitment and require companies to regularly review customer requirements, define processes and demonstrate consistent control over identified hazards, updating and improving the food safety management system to adapt to changes in process, requirements or regulations. An organization can choose to build a food safety system which conforms to a single scheme or more effectively it can build a robust system based on the most stringent requirements of several major schemes. This allows greater flexibility in meeting customer requirements or defending a system against challenges. The most important thing an organization needs to consider when choosing a GFSI-recognized food safety scheme is making sure there is the perfect match between the scheme and the organization.

Regardless of which GFSI-recognized scheme is chosen, the organization will benefit from the improved understanding of its processes and will be better positioned to consistently meet the need for sustainable food safety management.

ABOUT SGS

SGS is the world's leading testing, inspection and certification company. SGS is recognized as the global benchmark for quality and integrity. With more than 96,000 employees, SGS operates a network of over 2,700 offices and laboratories around the world.

SGS helps enhance food safety and quality with a comprehensive and cost-effective set of control solutions including audits, testing, inspection, technical solutions and training.

These services can be stand alone or part of an integrated package of measures to assist your company in continuously improving the culture of food safety, quality and sustainable development.

Enhancing processes, systems and skills is fundamental to your ongoing success and sustained growth. We enable you to continuously improve, transforming your services and value chain by increasing performance, managing risks, better meeting stakeholder requirements, and managing sustainability.

With a global presence, we have a history of successfully executing large-scale, complex international projects. Our people speak the language, understand the culture of the local market and operate globally in a consistent, reliable and effective manner.

For more information,
visit www.sgs.com/foodsafety
or email food@sgs.com

COPYRIGHT NOTICE

The information contained in this document represents the current view of SGS SA on the issues discussed as of the date of publication. Because SGS must respond to changing market conditions, it should not be interpreted to be a commitment on the part of SGS, and SGS cannot guarantee the accuracy of any information presented after the date of publication.

This White Paper is for informational purposes only. SGS makes no warranties, express, implied or statutory, as to the information in this document.

Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of SGS.

SGS may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from SGS, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property

WWW.SGS.COM

© SGS Group Management SA – 2022 – All rights reserved - SGS is a registered trademark of SGS Group Management SA.

WHEN YOU NEED TO BE SURE

SGS