



Food Security Through Effective Food Safety Standards

IFMA Congress 2011 Methven

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Food Safety – The Global Issue

Source-WHO 2009 ,World Bank and UK Food Standards Agency

World

- In 1998 1.8 million children in developing countries (excluding China) died from diarrhoeal disease originated in food and water
- 1 in 3 in industrialised countries may be affected by food borne illness each year

USA

- Each year in USA over 76 million cases of food borne illness occur resulting in 325000 hospitalizations and 5000 death
- 1.9 m who test positive for a specific pathogen
- 12.9 m who visit a physician but are not tested
- \$5.6 billion in economic costs to the US every year

Australia

- In Australia 11500 cases of food poisoning each day

UK

- 1 million cases, 20,000 hospitalisations and 500 deaths



Food Borne Illness in the UK

Source- UK Food Standards Agency

% Cases

Campylobacter	80%
Clostridium	13%
Salmonella	7%
E.Coli 0157	0.3%
Listeria	0.1%

% Deaths (500 deaths)

Listeria	35%
Salmonella	22%
Campylobacter	21%
Clostridium	15%
E.Coli 0157	7%

Recent Large US Multi-State Outbreaks of Foodborne Infections 2006-2010 (n=28)

Source: CDC

- 2006 - *E. coli* O157 and bagged spinach
- 2006 - *E. coli* O157 and shredded lettuce (restaurant chain A)
- 2006 - *E. coli* O157 and shredded lettuce (restaurant chain B)
- 2006 - Botulism and commercial pasteurized carrot juice
- 2006 - *Salmonella* and fresh tomatoes
- 2007 - *E. coli* O157 and frozen pizza
- 2007 - *Salmonella* and peanut butter
- 2007 - *Salmonella* and a vegetarian snack food
- 2007 - *Salmonella* and dry dog food
- 2007 - *Salmonella* and microwaveable pot pies
- 2007 - *Salmonella* and dry puffed breakfast cereal
- 2007 - *E. coli* O157 and ground beef
- 2007 - Botulism and canned chili sauce
- 2008 - *Salmonella* and cantaloupe
- 2008 - *E. coli* O157 and ground beef
- 2008 - *Salmonella* and fresh produce items
- 2009 - *Salmonella* and peanut butter containing foods
- 2009 - *Salmonella* and imported white and black pepper
- 2009 - *Salmonella* and alfalfa sprouts
- 2009 - *E. coli* O157 and prepackaged cookie dough
- 2009 - Multidrug resistant *Salmonella* and ground beef (x2)
- 2009 - *E. coli* O157 and blade tenderized steaks
- 2009 - *Salmonella* and salami made with contaminated pepper
- 2010 - *E. coli* O145 and romaine lettuce
- 2010 - *Salmonella* and alfalfa sprouts
- 2010 - *Salmonella* and frozen meals
- 2010 - *Salmonella* and shell eggs
- 2010 - *Salmonella* and alfalfa sprouts

Some Recent Large US Multi-State Outbreaks of Foodborne Infections 2006-2010 (n=28)

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“Ingredient Driven”
Outbreaks (n=10)

10 US Food Safety Incidents

10 new food vehicles identified in multistate outbreaks since 2006:

- ❑ bagged spinach
- ❑ carrot juice
- ❑ peanut butter
- ❑ broccoli powder on a snack food
- ❑ dog food
- ❑ pot pies/frozen meals
- ❑ canned chili sauce
- ❑ hot peppers
- ❑ pepper
- ❑ raw cookie dough



The screenshot shows a CDC webpage titled "Multistate Outbreak of E. coli O157:H7 Infections Linked to Eating Raw Refrigerated, Prepackaged Cookie Dough". The page includes a navigation menu, a search bar, and a sidebar with links to "Home", "Recent Outbreak", and "More About E. coli". The main content area features a headline, a sub-headline, and a date "Updated June 30, 2009". Below the text, there is a map of the United States with states highlighted in yellow, and a bar chart showing the number of infections by state and date of report. The text describes the outbreak, mentioning that 72 persons were infected with a strain of E. coli O157:H7, and lists the states and number of cases in each: Arizona (2), California (3), Colorado (8), Connecticut (1), Delaware (1), Georgia (1), Iowa (2), Illinois (5), Kentucky (2), Massachusetts (4), Maryland (2), Maine (3), Minnesota (8), Missouri (1), Montana (1), North Carolina (2), New Hampshire (2), New Jersey (1), Nevada (2), New York (1), Ohio (3), Oklahoma (1), Oregon (1), Pennsylvania (2), South Carolina (1), Texas (3), Utah (4), Virginia (2), Washington (8), and Wisconsin (1). It also notes that 65% of the infected persons are under 19 years old, 71% are female, and 10 developed hemolytic uremic syndrome (HUS).

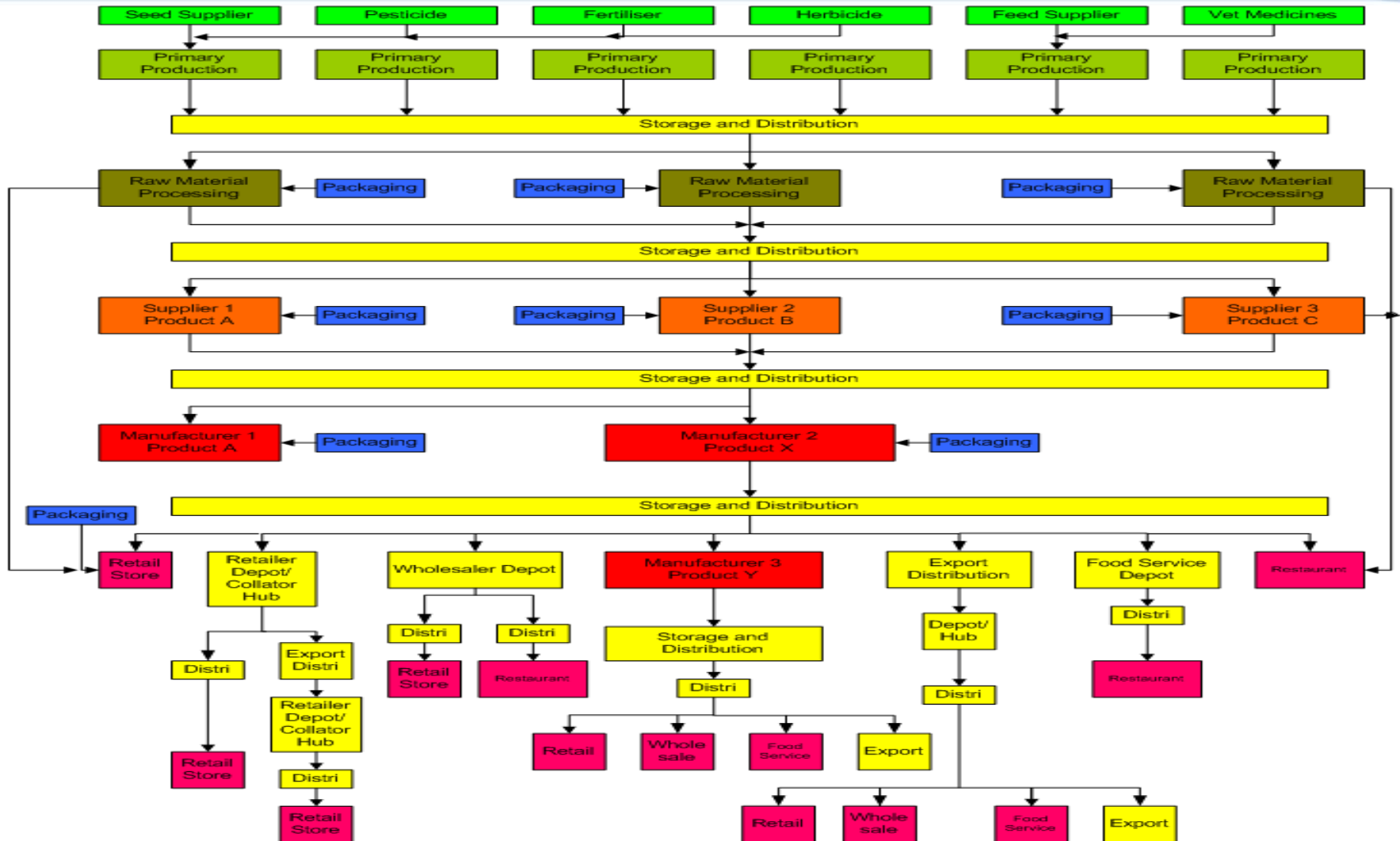
Potential Issues Facing the Food Industry

- Microbiological – bacteria and viruses
- Zoonoses
- Chemicals – environmental and migration
e.g. dioxins, PCB's, Heavy Metals
- Physical Adulteration- melamine
- Poor industrial practice- e.g. Nitrofen, acrylamide, mycotoxins

Food Chain Threats

- the understanding of risk e.g. the presence of low level contamination
- the understanding of food issues by consumers e.g. GM
- poor or low level levels of expertise at the primary level of supply
- technical understanding and control of the supply chain
- globalisation of food supply
- possible lowering of standards of control

The Supply Chain Labyrinth



The Crisis in Confidence

- March 2010 - US Government Accountability Office requests that the Food and Drugs Administration needs to strengthen its oversight of food ingredients before they enter the supply chain
- Major Retailers and Manufacturers have vendor assurance schemes but the robustness of such schemes is in question
- The introduction of food safety management standards will move down the supply chain and standards such as ISO 22000 will promote the links within the supply chain but mechanism not in place
- Attempts to control of biological systems

Importance of Private Food Safety Standards

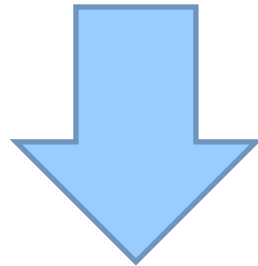
- Retailers have a high number of own label products (over 50% of grocery sales in several markets)
- product quality and consistency is essential within a highly competitive sector
- highly diverse own label product ranges
- product and ingredients sourced globally
- active product development programmes and significant level of product re-engineering
- retailers are 'high profile' with respect to enforcement and media
- high level of rigorous legal enforcement
- development of cost effective resolution of legal compliance for both user and supplier
- intrinsic to retailer and supplier due diligence systems and procedures
- intrinsic to brand protection



GFSI

In 2000.....

- Food safety crises
- Proliferation of individual retailer schemes
- Burden to suppliers and producers due to frequent audits



- Lack of efficiency and high costs in the food supply chain

« Safe Food for Consumers Everywhere »

GFSI Mission

Driving continuous improvement in food safety to strengthen consumer confidence worldwide

GFSI Objectives



How does GFSI work?

- Benchmarks existing food safety schemes, including pre-farm gate schemes against the GFSI Guidance Document.
- Determines whether a scheme is equivalent to the Guidance Document requirements.
- Helps and encourages food safety stakeholders to share knowledge and strategy for food safety and to develop best food safety practice in a common global framework.

What GFSI Does NOT Do

- Make policy for retailers or manufacturers
- Make policy for standard owners
- Undertake any accreditation or certification activities
- Have involvement with an area outside the scope of food safety i.e. animal welfare, environment and ethical sourcing

GFSI Breakthrough – June 2007

The following companies came to a common acceptance of GFSI benchmarked standards, and now many other companies have followed suit



METRO GROUP



MIGROS

ICA



DELHAIZE  GROUP Group Strength, Local Expertise

Benchmarking – What does this mean?

« Once certified, accepted everywhere »

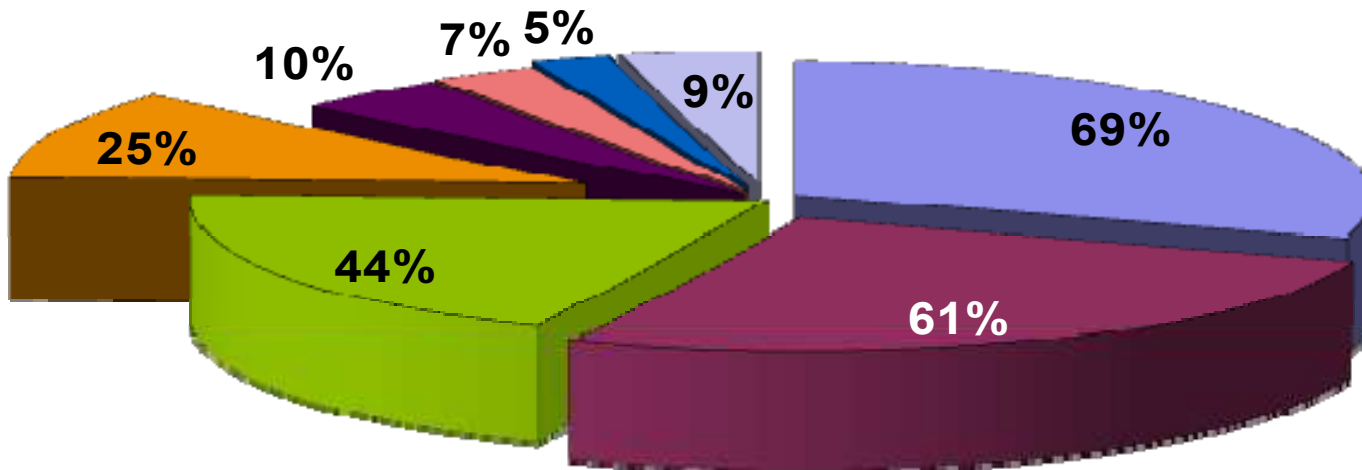


Some companies now accepting GSFI recognised schemes



Feedback on GFSI Certification

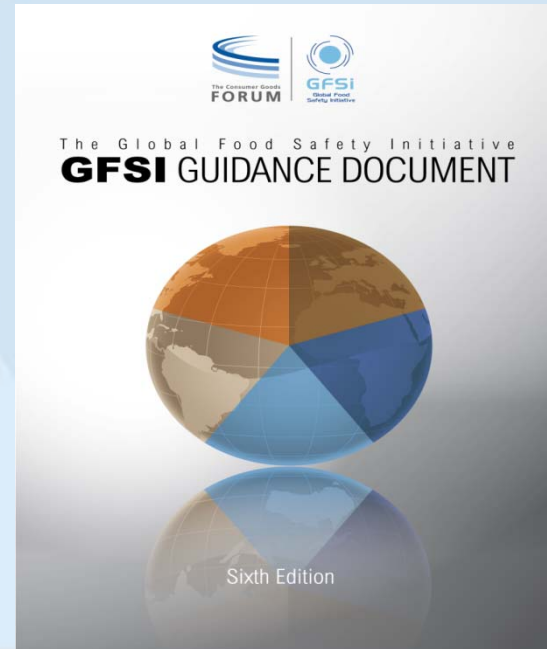
Top-3 Benefits from GFSI Certification (to date)



- | | | |
|--|---|---|
| <input type="checkbox"/> Improved Food Safety | <input type="checkbox"/> Improved Quality | <input type="checkbox"/> Reduction 3rd party Audits |
| <input type="checkbox"/> No Benefits Yet | <input type="checkbox"/> Reduction Quality Issues | <input type="checkbox"/> Reduction of Complaints |
| <input type="checkbox"/> Reduction Regulatory Issues | <input type="checkbox"/> Other | |



GFSI Guidance Document Version 6



GFSI Guidance Document

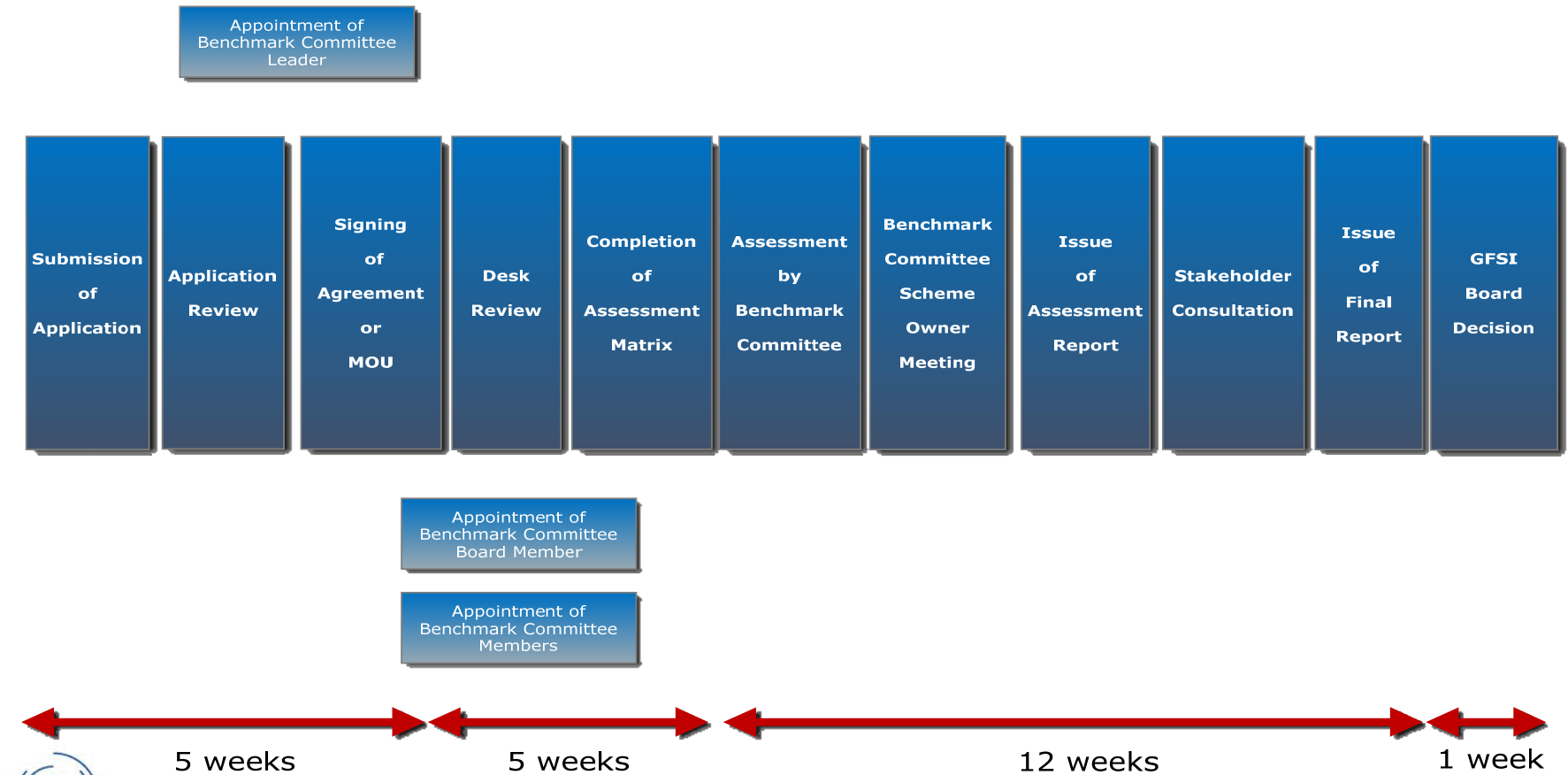
Objectives

- Sets out the requirements for food safety management schemes and the key elements for the production of food and feed
- Provides guidance to schemes seeking compliance with the GFSI Guidance Document and recognition by the GFSI
- Defines the requirements for the effective management and control of conforming schemes
- Puts in place transparent procedures for the GFSI benchmarking process



The Benchmarking Process

(New Scheme Application)

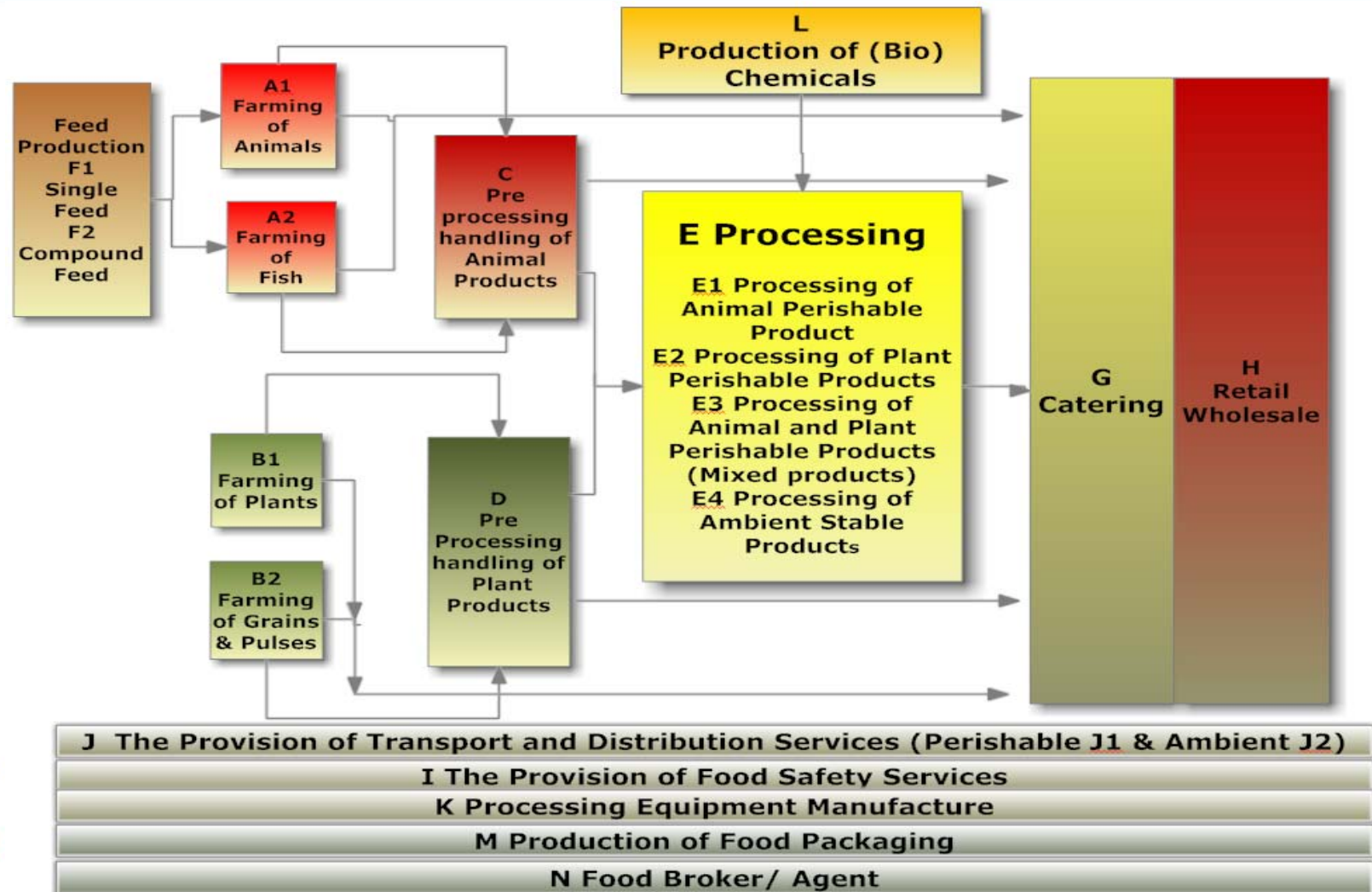


Requirements for the Management of Schemes

Three main sections

1. Requirements for GFSI Benchmarking Application
2. Requirements for Food Safety Management Scheme- Ownership and Management
3. Requirements for Food Safety Management Scheme- System

GFSI Scopes of Recognition



Food Chain Issues

- food is a 'high risk business'
- food is 'high profile' and emotive
- food safety is technically challenging
- food is traded globally through a multi layered supply chain with the increased risk this brings
- food is a low margin environment
- economically highly volatile
- a high number of factors influence customer acceptability and supply e.g. GM, animal welfare and ethical sourcing

Further challenges for Food Safety

- **Food demand will increase by 70% by 2050**
- **Food and animal feed production to compete with biofuels:**
 - Higher costs for food production
- **Climate change**
- **High losses from food production to household (50%):**
 - Rotting / Vermin
 - Inefficient supply chains
 - Lack of cold chain control
 - Poor local infrastructure
 - waste
- **Animal diseases**

GFSI Adding Value ...

For suppliers certified to a GFSI recognised scheme:

- More disciplined, efficient and profitable business
- Show equivalence of process across countries and continents
- GFSI recognised schemes are accessible and are shared by many
- Certified companies have a legal defence in place

For retailers:

- GFSI recognised schemes provide effective shared risk management tools for own brand protection
- Improvement in product integrity
- Certification enables simpler buying

For governments:

- Business is promoting compliance with legislation
- Business is self regulating and is driving continuous improvement and best practice
- Business seeks to share its progress and resolve concerns from regulators



GFSI – A Shared Responsibility

In order to meet consumer expectations, a global solution is key.

GFSI is a multi-stakeholder approach involving the whole supply chain



For more information:

Websites

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