



# Food Security Through Effective Food Safety Standards

## IFMA Congress 2011 Methven

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Chairman of the GFSI Technical Committees

# 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 contains the following text:

**Multistate Outbreak of E. coli O157:H7 Infections Linked to Eating Raw Refrigerated, Prepackaged Cookie Dough**  
Updated June 30, 2009

CDC is collaborating with public health officials in many states, the United States Food and Drug Administration (FDA), and the United States Department of Agriculture Food Safety and Inspection Service (FSIS) to investigate an outbreak of E. coli O157:H7 infections.

As of Tuesday, June 30, 2009, 72 persons infected with a strain of E. coli O157:H7 with a particular DNA fingerprint have been reported from 30 states. Of these, 51 have been confirmed by an advanced DNA test as having the outbreak strain; these confirmatory test results are pending on the others. The number of all persons identified in each state is as follows: 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).

Ill persons range in age from 2 to 85 years; however, 65% are less than 19 years old; 71% are female. Thirty-four persons have been hospitalized, 10 developed hemolytic uremic syndrome (HUS); none have died. Reports of these infections increased above the expected baseline in May and continue into June.

On the right side of the page, there is a "States Where Persons Infected with the Outbreak Strain of E. coli O157:H7 Live, United States, by State, March 1, 2009 to June 30, 2009" section. It includes a map of the United States with 30 states highlighted in yellow, and a bar chart showing the number of infections by state. The bar chart shows the following data:

State	Number of Infections
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
Wisconsin	1

# Potential Issues Facing the Food Industry

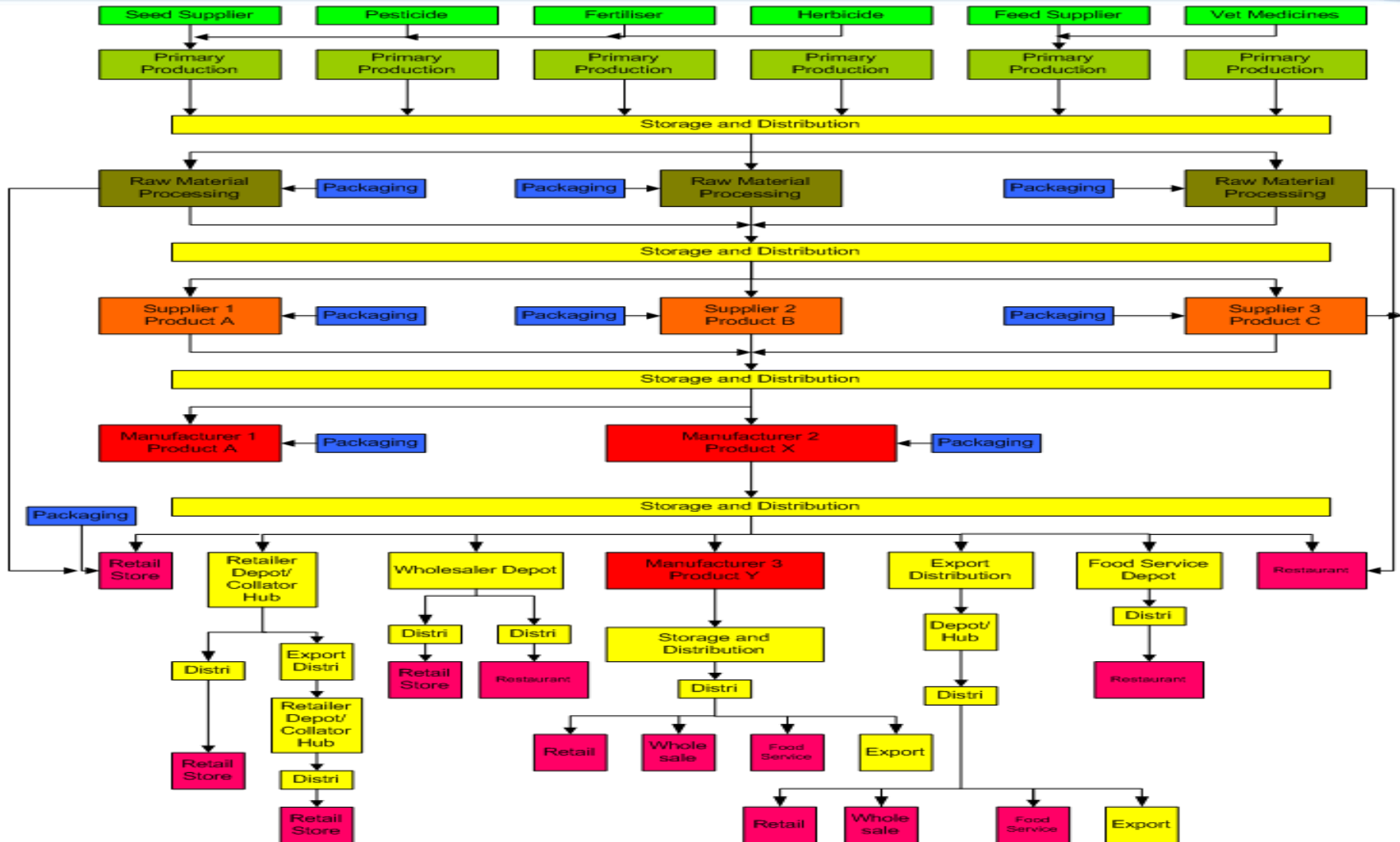
- Microbiological – bacteria and viruses
- Zoonoses
- Chemicals – environmental and migration  
e.g. dioxins, PCB's, Heavy Metals
- Physical Adulteration- melamine
- Poor industrial practice- e.g. Nitrofen, acrylamide, mycotoxins

# 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

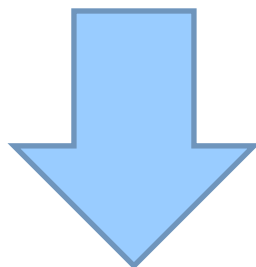


**GFSI**



# 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 »

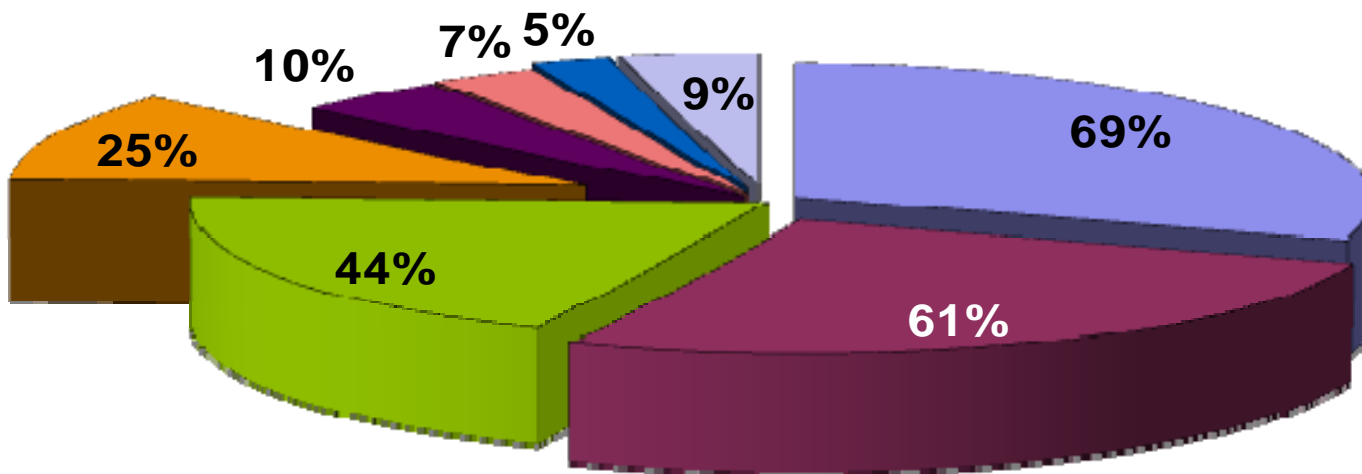


# Some companies now accepting GSFI recognised schemes



# Feedback on GFSI Certification

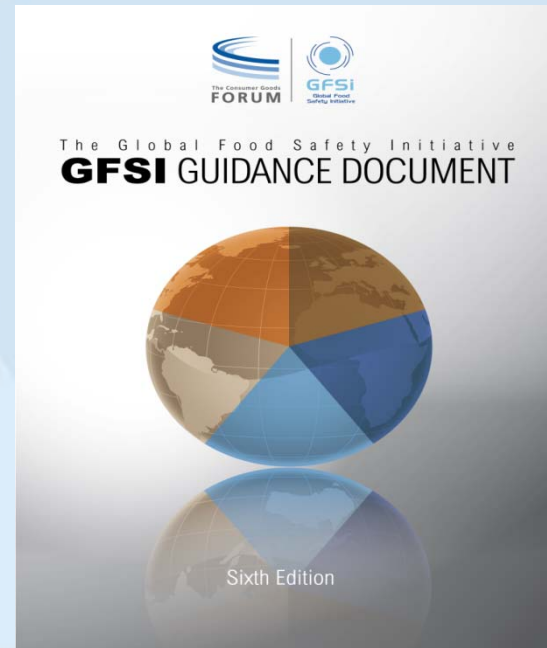
## Top-3 Benefits from GFSI Certification (to date)



- |                               |                            |                              |
|-------------------------------|----------------------------|------------------------------|
| ■ Improved Food Safety        | ■ Improved Quality         | ■ Reduction 3rd party Audits |
| ■ No Benefits Yet             | ■ Reduction Quality Issues | ■ Reduction of Complaints    |
| ■ Reduction Regulatory Issues | ■ Other                    |                              |



# GFSI Guidance Document Version 6



# GFSI Guidance Document

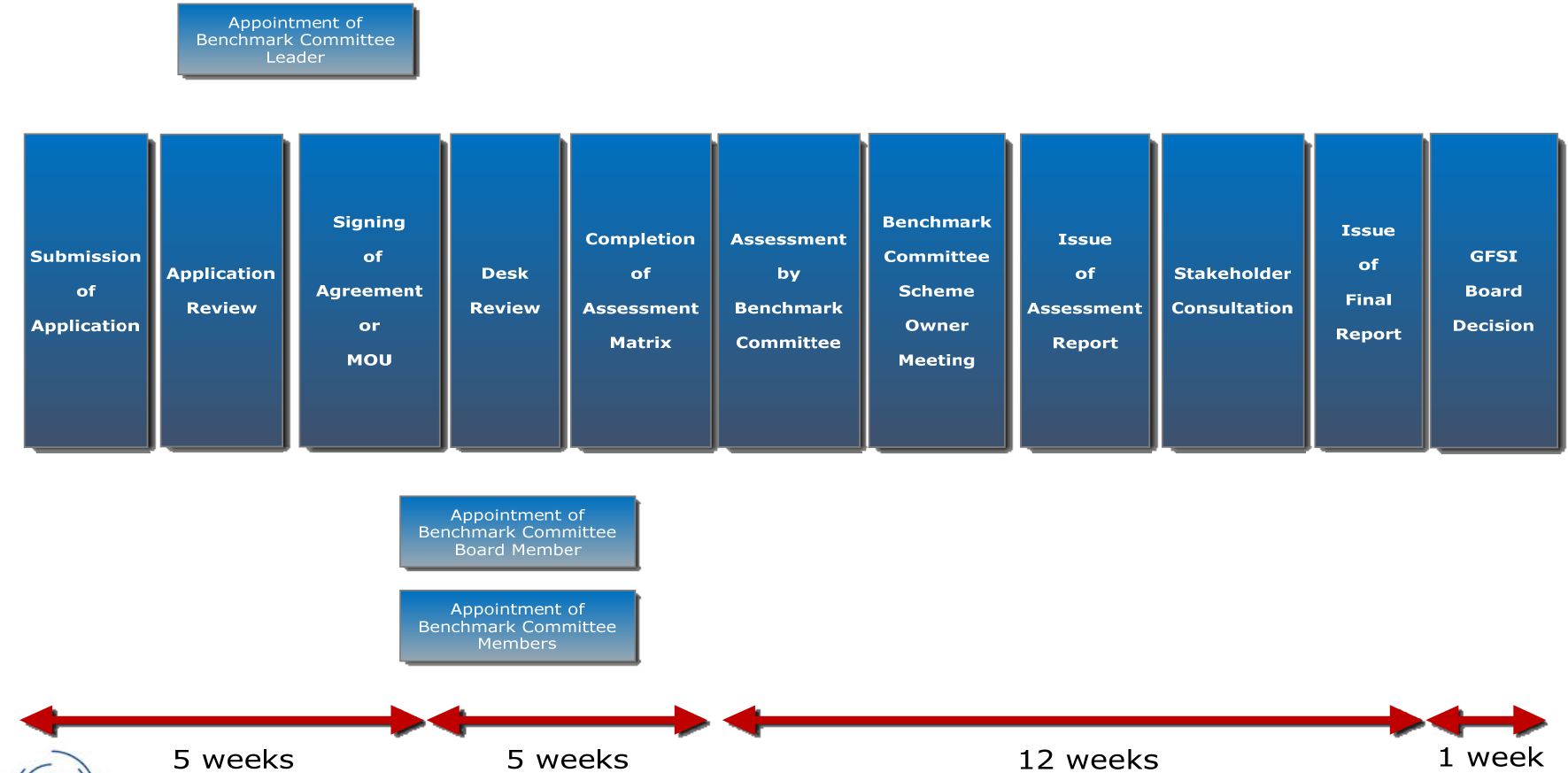
## Objectives

- 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)





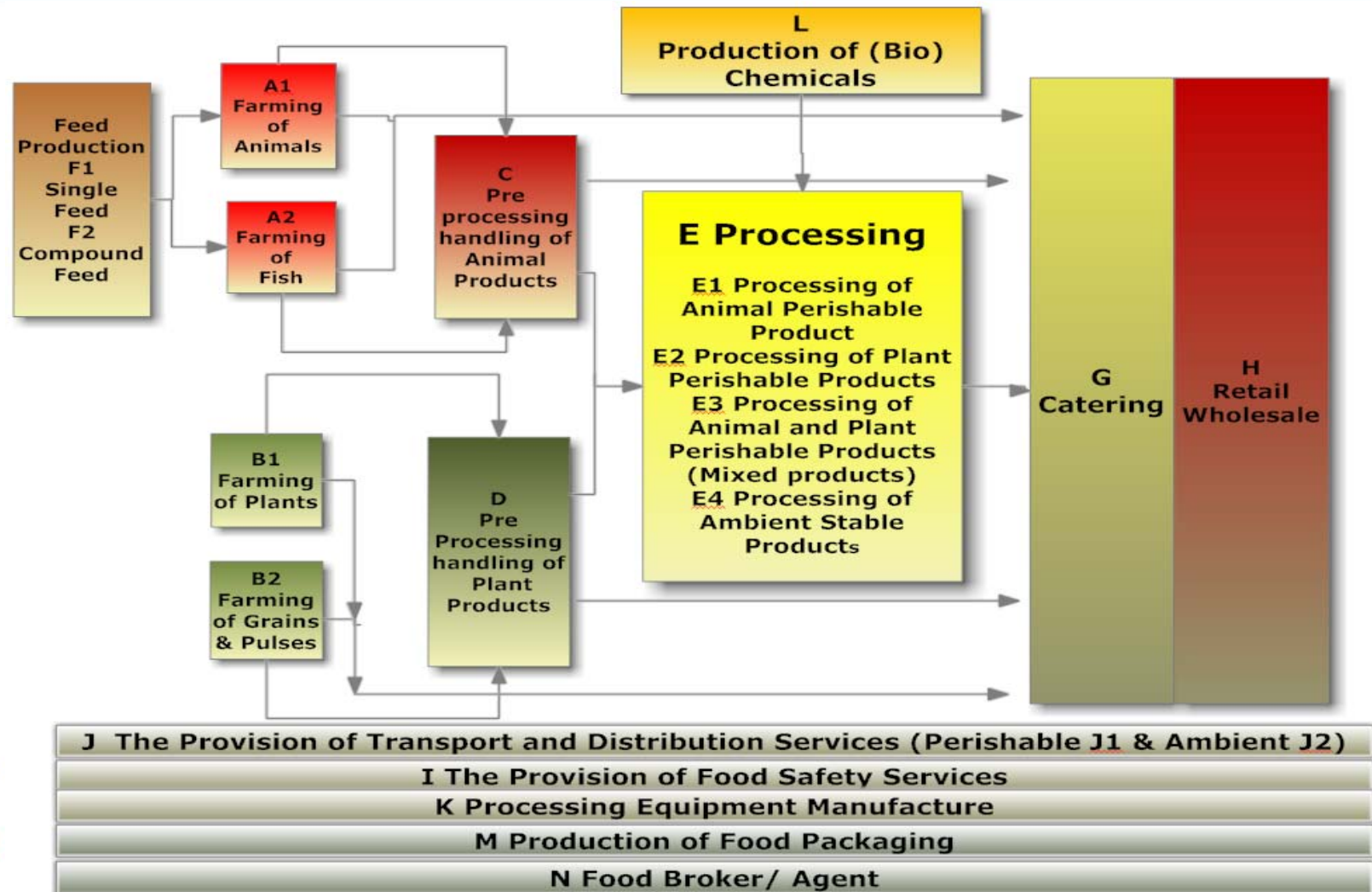
# Requirements for the Management of Schemes

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**

[www.mygfsi.com](http://www.mygfsi.com)

[www.tcgffoodsafety.com](http://www.tcgffoodsafety.com)

## **Email**

[gfsinfo@theconsumergoodsforum.com](mailto:gfsinfo@theconsumergoodsforum.com)

