Consumers and food safety: Issues and priorities

ARSO GA consumer seminar
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Getting safe food is the right of every consumer

There are an estimated 2,000 food safety-related deaths in Africa each day, according to the UN Food and Agriculture Organisation (FAO) and the World Health Organisation (WHO)

Many CI members in Africa are working on food safety, including LDCP Benin, ADEC Senegal, ADDC Niger, Consumer Council Zimbabwe

ACCESS
SAFETY
INFORMATION
CHOICE
SUSTAINABLE
HEALTH
NUTRITION
Food safety issues for consumers

Health
- contamination
- disease/pathogens
- adulteration
- fraud
- misuse of pesticides/antibiotics
- repackaging

Information/Labeling
- visible compliance marks
- language
- misleading/incorrect
- complex supply chains

Legislation and Enforcement
- lack of market surveillance
- lack of testing resources/complex tests
- increase in imported/processed products
- complex supply chains
New challenges for consumers

Many food safety problems still exist and new ones are emerging.

‘As food production and supply have become more complex, consumers’ needs have also changed. With many consumers far removed from where their food originates and the methods used to produce it, they are more reliant on information provided by manufacturers, including on the label and advertising, to find out what they are eating. They are also more reliant on the food industry and regulators to ensure that they are adequately protected from food hazards and that their concerns are reflected in the way the food is produced and controlled.’

Voice, India
Traceability
Horsemeat scandal

- Dutch Officials Recall 50,000 Tons Of 'Beef' That May Contain Horse Meat

- New horsemeat scandal as banned drug found in Asda corned beef
Lead found in rice

- Rice imported from some countries contains high levels of lead
China's 2008 melamine scandal

- Milk powder contaminated with melamine, a chemical used for plastics
- Secretly added to make milk appear higher in protein
- Six babies died, 300,000 infants made ill, national outcry
- Milk producers, traders and executives convicted
- Two people executed
Food fraud

Food fraud is committed when food is deliberately placed on the market, for financial gain, with the intention of deceiving the consumer.

the sale of food which is unfit and potentially harmful, such as:
  – recycling of animal by-products back into the food chain
  – packing and selling of beef and poultry with an unknown origin
  – knowingly selling goods which are past their 'use by' date
the deliberate misdescription of food, such as:
  – products substituted with a cheaper alternative, for example, farmed salmon sold as wild, and Basmati rice adulterated with cheaper varieties
  – making false statements about the source of ingredients, i.e. their geographic, plant or animal origin
Factors affecting food safety

Product information (labelling)

Application of standards and regulations

Integrity of the supply chain

Market surveillance
What next?

“We have abandoned the precautionary principle …we are now at the mercy of forces beyond our control. In the absence of standards and regulations we will continue to learn from tragedy and hope that these efforts are not occurring too late in the game”

Norma McCormick, ISO/COPOLCO Chair
What is ISO doing?
ISO/TC 34, *Food products* + ISO/CASCO

- **Food chain from primary production to consumption**
- **125 countries**
- **800 standards published**
- **Joint Leadership**
  - AFNOR (France) and ABNT (Brazil)
- **Big structure**
  - 15 SCs
  - 7 WGs
- **terminology**
- **sampling**
- **methods of test and analysis**
- **product specifications**
- **food and feed safety and quality management**
- **requirements for packaging, storage and transportation**

125 countries
ISO TC/ 34 Business plan: 4 defined objectives

Safety of food products
- Methods of test and analysis are of importance in this field (65% of ISO/TC 34 International Standards)
- Food Safety Management Systems Standards (i.e. ISO 22000:2005)

Quality of products
- Product specifications (e.g. Pimento)
- Nutritional value of food (e.g. Vitamins, fatty acids)

Fair practices in trade
- Ensure fair practices in trade between countries
- Contribution by internationally recognized methods of test, product specifications and common vocabulary

Sustainable development
- 3 aspects: economic, societal and environmental
FARMING (Crop Production/Animal production / Animal feeding stuffs)

PRIMARY PRODUCTION (Harvest/Slaughter)

STORAGE

First and second
TRANSFORMATION

TRANSPORT

DISTRIBUTION

METHODS OF ANALYSIS

ISO 17372, Animal feeding stuffs – Determination of zearalenone
ISO 8671, Artificial insemination of animals

ISO 7301:2011
Rice – Specifications

ISO 1212, Apples -- Cold storage

ISO 11036 « Sensory analysis - Methodology »

ISO 8455 – Green/Raw coffee – Guide to storage and transport

NF ISO 6579 « Microbiology of food and animal feeding stuffs -- Horizontal method for the detection of Salmonella spp. "

ISO 22000 «Food safety management systems - Requirements for any organization in the food chain

FROM FARM TO FORK

ISO 11036 « Sensory analysis - Methodology »
## STRUCTURE

### Vertical

<table>
<thead>
<tr>
<th>SC 15 Coffee (BR)</th>
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<tbody>
<tr>
<td>SC 8 Tea (UK - CN)</td>
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<tr>
<td>SC 7 Spices, culinary herbs and condiments (IND)</td>
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<tr>
<td>SC 4 Cereals and pulses (CN)</td>
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<td>SC 10 Animal feeding stuffs (Iran)</td>
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<td>SC 2 Oleaginous seeds and fruits and oilseed meals (FR)</td>
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<tr>
<td>SC 11 Animal and vegetable fats and oils (UK)</td>
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<td>SC 5 Milk and milk products (NL)</td>
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<td>SC 6 Meat, poultry, fish, eggs and their products (BOT)</td>
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<tr>
<td>SC 3 Fruit and vegetable products (TK)</td>
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<td>SC 14 Fresh, dry and dried fruits and vegetables (TK)</td>
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### Horizontal

<table>
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<tr>
<th>SC 9 Microbiology (FR)</th>
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<td>SC 12 Sensory analysis (ARG)</td>
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<td>SC 16 Horizontal methods for molecular biomarker analysis (US)</td>
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<td>SC 17 Management systems for food safety (DK)</td>
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ISO TC 34 is addressing Food Safety issues...

As well as drafting standards on products, it has already developed many standards integrating internationally recognized testing methods and requirements.

It has also tackled the production of Safe Food with the publication of ISO 22000 – Requirements for Food Safety Management Systems.

To ensure better harmonization of claims of conformity to ISO 22000, in co-operation with ISO Committee for Conformity Assessment (ISO CASCO), it has addressed the certification of Food Safety Management Systems (FSMS) by producing a requirements standards for FSMS Certification Bodies - ISO 22003
ISO 22000 – overview

• The requirements of ISO 22000 are generic and are intended to be applicable to all organizations in the food chain regardless of size and complexity

• Allows an organization, such as a small and/or less developed organization (e.g. a small farm, a small packer-distributor, a small retail or food service outlet), to implement an externally developed combination of control measures.

• Can be applied independently of other management system standards.

• Can easily be integrated with existing related management systems.
ISO 22000 food safety management

Family initiated in 2001
Standards so far:

- ISO 22000:2005 (under revision) - Food safety management system – Requirements
- ISO/TS 22003:2013 - Requirements for bodies providing audit and certification of food safety management systems
- ISO 22005:2007 - Traceability in the feed and food chain
- ISO/TS 22002 (in parts) Prerequisite programmes on food safety [specific guidelines for the use of ISO 22000 in a specific organization along the food chain]
ISO 22000 Family Key Points

- Strong management system requirements (ISO 9000 approach)
- Innovates on Codex HACCP foundation
- Useable by full supply chain (input suppliers, farms, processors, transporters, final marketers) & all sizes (micro to global)
- Integrates Food Safety & Traceability
- Emphasizes Regulatory compliance
- Audit & Certification
- Managed for the Future
ISO/TS 22002, *Prerequisite programmes on food safety*

- ISO 22000 very generic
- Need to develop specific prerequisite programmes along the food chain
- In *parts*:
  - 1 *Food manufacturing* (published in 2009)
  - 2 *Catering* (published in 2013)
  - 3 *Farming* (published in 2011)
  - 4 *Food packaging manufacturing* (published in 2013)
  - 5 *Transport and storage* (under development)
  - 6 *Feed production* (under development)
Consequently, ISO 22003 is trying to bridge the gap between Product Certification or Management System Certification with respect to Food Safety and to facilitate the dovetailing of FSMS Certification with existing and future Product Certification schemes. This innovative approach has led to more general discussions within ISO CASCO for the drafting of a more generic document on the interrelation the certification of Products and Management Systems. The ultimate aim: Facilitating Trade and Exchange while ensuring Safe and Conforming Product for the End-user.
Technical Specification – Food Safety Specific - covers

- Requirements for accreditation of Certification Bodies (based on new ISO 17021:2011)
- Qualifications & Competencies of auditors, certification officers, technical experts, etc.
- Certification Process (2 stage audit, etc.)
- Food Business Classifications
- Minimum Audit Times
- Multi-site Audits
ISO 22005:2007 – Traceability

Sets out the “general principles and basic requirements for system design and implementation” of traceability system

Uses Codex definition of traceability

Requires food/feed business to:

– Set food safety, quality & other objectives
– Design a system that meets regulatory & customer requirements
– Specify the information to be obtained from its suppliers, collected within itself & provided to its customers
– Establish procedures, documentation, etc.
– Implement the system (training, etc.)
– Monitor the system
– Review it regularly & Update
ISO 22000 – check-list

A publication, in collaboration with ITC:
ISO 22000, Food safety management systems - An easy-to-use checklist for small business - Are you ready?

Enables small businesses to assess their readiness to implement the new ISO 22000 standard

English and French, Spanish
ISO 22000 - Worldwide total

+ 15% growth from 2012 to 2013
142 countries,
Top 3 are China, Greece, India

2007 - 2013

- Middle East
- Central and South Asia
- East Asia and Pacific
- Europe
- North America
- Central / South America
- Africa

2007: 2749
2008: 4865
2009: 6050
2010: 7083
2011: 637
2012: 802
2013: 949

2012: 12562
2013: 1522
The solution?

Market surveillance and food safety needs to be highly coordinated and capable of reacting rapidly to safety problems.

Authorities need the right tools to operate in an efficient and effective way.

Measures need to be applied at the product processing stages, and through the use of standards, to reduce risks to a tolerable level.

Emphasis has to be placed on enhanced food identification and traceability.
Resources for easy reference

Standards development - list of technical committees - ISO/TC 34
Homepage
News - Standards in action - Food
Standards - Management Standards - ISO 22000