ISO Standards for traceability in the feed and food chain

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Overview

• ISO system, ISO standards
• ISO a bridge between public and private
• Work on food, food safety
• Work on traceability
ISO in figures (2014)

- 165 members,
- 100 000 experts
- 227 technical committees (500 SCs)
- 19 meetings everyday
- 4700 active projects (1852 new)
- 1468 publications in 2014
- 20 493 standards in catalogue
ISO’s Global networking

• World Standards Cooperation (WSC), with IEC and ITU
• WTO: observer status and collaboration
• UN and UN agencies: CODEX, ILO, IMO, ITC, UPU, UN/ECE, UNIDO, WHO, WMO, WTO-Tourism, …
• Over 700 liaisons and partnerships with international and regional organizations in technical work
• Links with seven regional bodies
• Key agencies: Consumer, Industry, Government
Mission

ISO develops high quality voluntary International Standards which facilitate international exchange of goods and services, support sustainable and equitable economic growth, promote innovation and protect health, safety and the environment.
ISO standardization practices

*Some key principles*

- Transparency *
- Openness *
- Consensus & impartiality *
- Market relevance & effectiveness *
- Coherence *
- Development dimension *
- Stakeholder engagement
- Due process
- National implementation/adoption

* explicit principles for the “development of international standards, guides and recommendations with relation to articles 2, 5 and Annex 3 of the WTO/TBT agreement”
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International Standards help all economies thrive!

- Link to global supply chains
- Underpin international trade - access to markets
- Reduce technical barriers - support multilateral trade
- Assure consistent health, safety and performance
- Help renew confidence and promote economic recovery
Important principles in ISO standards development

• ISO standards respond to a need in the market
• ISO standards are based on global expert opinion
• ISO standards are developed through a multi-stakeholder process
• ISO standards are based on a consensus
Public
- Public policy
- Framework regulations
- Public standards

Private
- Industry schemes
- Private standards
- Best practices

ISO
- CODEX
- OECD
- FAO
- IPPC
- WTO
- SPS
- OIE

GFSI
- FSSC
- IFS
- SQF
- BRC
- SPS
Importance of food safety

- More than 200 diseases spread through food
- Foodborne diseases increasing worldwide
- Food safety - global concern
- Emerging diseases tied to food production
- Preventing disease starts at farm
- Chemical hazards can contaminate food
- Everyone plays a role in food safety
What were food businesses looking for?

- Better planning, less post-process verification
- More efficient & dynamic hazard control
- Systematic management of prerequisite programs
- Better documentation
- Communication among trade partners
- Resource optimization (internally & along food chains)
ISO and FOOD SAFETY

BUILDING LINKAGES BETWEEN KEY INTERNATIONAL ORGANIZATIONS
ISO brings to life international, intergovernmental standards

ISO brings coherence & efficiency through single global approach

ISO 22000

ISO/TS 22003

ISO/TS 22002 Parts 1 to 5

ISO 22005

ISO CASCO

+ other ISO/TC34 Standards ....
International consistency for assessments and confidence

The **CASCO toolbox** consists of 26 documents covering:

- Vocabulary, principles and common elements of conformity assessment
- Codes of good practice
- Product, system, and person certification
- Testing, calibration, inspection, marks of conformity
- Supplier’s declaration of conformity, accreditation, peer assessment, and mutual recognition arrangements
ISO/TC 34/SC 17,
*Management systems for food safety*

Standardization in the field of food safety management systems, covering the food supply chain from primary production to consumption, human and animal foodstuffs as well as animal and vegetable propagation materials.
ISO/TC 34/SC 17

- SC 17 closely cooperates with ISO/DEVCO to ensure the participation of developing countries
- Participation is important and relevant for all those interested in management of food safety using ISO 22000
- Liaison with: AOCS, CAC, CGF, EMRA, FoodDrinkEurope, GS1, IAF, IDF, IFPS, OIE, SSAFE, ISO/TC 234 Fisheries and Aquaculture and ISO/CASCO on conformity assessment
## Work programme of ISO/TC 34/SC17

### The Base

<table>
<thead>
<tr>
<th>Specific guidelines</th>
<th>ISO 22000</th>
<th>To be revised!!!</th>
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<tr>
<td>To be used together with ISO 22000</td>
<td>ISO/TS 22002</td>
<td>ISO/TS 22003</td>
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<td>-1 Food manufacturing</td>
<td>-2 Catering</td>
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<td>-x ...</td>
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### Guidance on how to use ISO 22000

- ISO 22005 Traceability
- ISO/TS 22004 Guidance on application
- Fitness checker: "Are you ready?"
- ISO handbook: "How to use ISO 22000"

### How to do accredited certification

- Link to CASCO (ISO 19011, ISO/IEC 17021, ISO/IEC 17065)
What is ISO 22000:2005?

*(Food safety management system)*

- A management system standard (based on ISO 9001:2000)
- Specific to food safety management (not quality, etc)
- Based on Codex HACCP approach with some innovations
- Designed for all segments of food chain & all types of food business (micro to global)
- Enables a food business to plan, implement, operate, maintain and update a system to provide safe end products and demonstrate conformity with applicable regulatory requirements
ISO 22000 – Food chain interactions

Essential: Ensure that the Relevant Food Safety Hazards
• are identified and adequately controlled
• at each step within the food chain.

With organization upstream in the food chain

With customers

Inside the organization

With suppliers

With organization downstream in the food chain
ISO 22000 family

- Farming
- Manufacturing
- Food Service / Retail

ISO 22000:2005

- ISO/TS 22002-3 (Packaging)
- ISO/TS 22002-1
- ISO/TS 22002-2, (Retail) (Supply chain)
ISO 22005:2007 — Traceability

- Complement ISO 22000
- *Traceability in the feed and food chain — General principles and basic requirements for system design and implementation*
- Sets out the “general principles and basic requirements for the design and implementation” of a feed and food 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/suppliers
ISO 22005:2007 — Traceability

- Requires food/feed business to:
  - Establish procedures, documentation, etc.
  - Implement the system (tools to trace, record and communicate, responsibilities, training, etc.)
  - Monitor the system
  - Review it regularly & Update (key performance indicators to measure and assess the effectiveness)
Overview of ISO/TC 34
800 published ISO standards

ISO/TC 34 Food products (FR - BR)

SC 2 Oleaginous seeds and fruits and oilseed meals (FR)
SC 3 Fruit and vegetable products and their derived products (TR)
SC 4 Cereals and pulses (CN)
SC 5 Milk and milk products (NL)
SC 6 Meat, poultry, fish, eggs and their products (CN)
SC 7 Spices, culinary herbs and condiments (IN)
SC 8 Tea (GB - CN)
SC 9 Microbiology (FR)

WG 13 Royal jelly (CN)
WG 14 Vitamins and nutrients (CH/NL)
WG 16 Animal welfare (SSAFE)

WG 17 Water activity (FR)
WG 18 Natural food ingredients (CH)
WG 19 Nitrogen content according to the Dumas Principle (US)

CAG

SC 10 Animal feeding stuffs (IR)
SC 11 Animal and vegetable fats and oils (GB/FR)
SC 12 Sensory analysis (AR/FR - AR)
SC 15 Coffee (BR/CO)
SC 16 Horizontal methods for molecular biomarker analysis (US)
SC 17 Management systems for food safety (DK)
SC 18 Cocoa (NL - GH/NL - CI)
Project ISO 19381 — Sustainable and traceable cocoa beans

Part 1: Requirements for sustainability management systems
Part 2: Requirements for performance (profit, people and planet related)
Part 3: Requirements for traceability
– Traceability of sustainably produced cocoa beans and derived products
– intended to be applied by the cocoa supply chain actors
– tool to assist an organization operating within a cocoa supply chain to achieve defined objectives.
– choice of a traceability system influenced by regulations, product characteristics and customer expectations.
ISO 19381-3: Requirements for traceability (2)

- **complexity vary** depending on the features of the product and the objectives to be achieved.

- **flexible enough** to allow organizations to achieve identified objectives but **rigid enough** to ensure credible implementation.

- Implementation depends on **technical limits** inherent to the organization and products (i.e. nature of the raw cocoa beans and cocoa products, size of the parcels, collection, handling, transport, production and processing procedures), and the cost benefits of applying such a system.
ISO 19381-3: Requirements for traceability

The Cocoa Supply Chain

Benefits for Farmer and his Community

Well controlled, realistic and transparent traceability system
Participate!

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