



## JOINT FAO/WHO FOOD STANDARDS PROGRAMME

### CODEX ALIMENTARIUS COMMISSION

35th Session, FAO Headquarters

Rome, Italy, 2-7 July

### COMMUNICATION FROM ISO

(report of activities relevant to Codex work)<sup>1</sup>

1. The International Organization for Standardization (ISO) has prepared this information paper as part of ongoing updates and communication between the Codex Alimentarius Commission (CAC) Secretariat and the ISO Central Secretariat. It provides a summary of current work undertaken by ISO that may be of interest to the CAC and is intended to support and enhance dialogue and coordination between the two organizations.

#### International Organization for Standardization (ISO)

2. Any general information regarding the International Organization for Standardization (ISO) can be found on <http://www.iso.org/>. The ISO portfolio counts nearly 19 200 International Standards which have been developed by 217 technical committees and 493 subcommittees managing some 2 399 working groups.

#### ISO's international status

3. ISO has a specific status with many UN agencies, including the WHO and FAO. It is also an observer at the WTO Committee on Trade and Environment (CTE), the Committee on Technical Barriers to Trade (WTO TBT) and the Committee on Sanitary and Phytosanitary Measures (SPS).

4. ISO's observer status to the CAC provides an opportunity for the coordination of issues related to a variety of ISO standards that are adopted and used by Codex in its work. ISO methods have been endorsed in the document "*Recommended methods of analysis and sampling*" (CODEX STAN 234-1999) which is updated each year during the CCMAS meeting.

5. ISO and OIE, *The World Organisation for Animal Health*, signed a formal agreement in July 2011 regarding liaisons and cooperation in specific areas.

6. ISO organized, in cooperation with the Codex Alimentarius Commission, the UN Food and Agriculture Organization (FAO), the World Organization for Animal Health (OIE) and the Global Food Safety Initiative (GFSI), a regional workshop on safe and sustainable fisheries, on 13 - 16 September 2011 in Bali, Indonesia. Thirteen countries (with representatives of national standards institutes, government and industry) from East and South East Asia participated in this regional workshop.

This workshop was an opportunity to demonstrate each organization's complementarity, and together provide a valuable service to emerging players in East and Southeast Asia.

7. ISO organized, in cooperation with the Codex Alimentarius Commission, the World Organization for Animal Health (OIE) and UNIDO, a regional workshop on Standards contribution to the food sector in Africa, in Nairobi, Kenya, on 24 and 25 April 2012. Thirty-five African countries were invited as well as countries from other parts of the world. The 120 participants (from National Standardization Bodies, governments and industry) were provided useful information about food safety in different food sectors. It allowed the participants to share their experiences, and their knowledge, thus to benchmark the different national practices. Moreover, the participants discovered the roles and tools provided by the different International organizations present.

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<sup>1</sup> Document prepared by and under responsibility of ISO.

This workshop reached its goal to enhance awareness of the participants in terms of Food Safety and the role of the different international organizations, and also to share experiences and information on this topic.

#### ISO and developing countries

8. Since 1960, ISO has had a policy development committee – DEVCO – that deals specifically with the needs of developing countries in standardization. Developing countries need to focus both on acquiring world-class technological competence and on achieving a good understanding of the technical requirements underlying global trade. For 50 years, ISO has been assisting in both these areas through ISO/DEVCO, the ISO Committee on developing country matters. DEVCO's membership comprises 147 national standards institutes from industrialized as well as developing countries.

(Find more about DEVCO on [http://www.iso.org/iso/resources/developing\\_countries.htm](http://www.iso.org/iso/resources/developing_countries.htm)).

9. In 2011, ISO/DEVCO carried out 3 projects in relation to ISO 22000 technical assistance and 3 events were planned in 2012 (see [Annex 2](#)). The main objective is to improve awareness of key stakeholders in developing countries of the role of such standards in economic growth, world trade and their contribution to sustainable development. Two events were organized with the further objective of building capacity by means of a regional workshop on fisheries safety, quality, productivity and sustainability in Bali, Indonesia and a regional workshop on standards contribution to the food sector in Africa in Nairobi, Kenya. In addition, 3 sponsorships were provided in 2011 to individuals from developing countries to attend the Meeting of ISO/TC 34/SC 17 on Management Systems for Food Safety on 4-7 October 2011 in Dublin, Ireland.

#### ISO technical work updates

10. The priority areas of mutual interest on which ISO would like to maintain and nurture dialogue with the CAC are the work of ISO/TC 34 on food products and the generic work of the ISO Committee on conformity assessment (ISO/CASCO). It should however be noted that other ISO Technical Committees are working in fields that could be of interest for CAC:

- ISO/TC 54, *Essential oils* with which CAC has a liaison (more details in point [41](#));
- ISO/TC 147, *Water quality* with which CAC has a liaison with SC 2 and SC 4 (more details in point [38](#));
- ISO/TC 234, *Fisheries and aquaculture* (created in February 2007) with which CAC has a liaison (more details in point [34](#)) (see [Annex 3](#) for the structure of ISO/TC 234).

A brochure has recently been published by ISO to summarize the work done in ISO in relation to food. It can be found at [http://www.iso.org/iso/iso\\_and\\_food.pdf](http://www.iso.org/iso/iso_and_food.pdf)

#### ISO's conformity assessment standards and their use in food safety

11. ISO is an International Standards' developer and does not itself undertake assessments of conformity of products, management systems, processes or services against the requirements of the standards it produces. ISO does however produce International Standards and Guides on how assessment of conformity should take place – this is the role of the ISO Policy Committee on Conformity Assessment ([ISO/CASCO](#)). CASCO comprises 119 members. CASCO maintains liaison with 18 international organizations in addition to IEC: BIPM, CAC, CEC, EFAC, EOQ, EUROLAB, IAF, IFAN, IFIA, IIOC, ILAC, INLAC, IPC, IQNet, ITU-T, OIML, UILI and UNFCCC.

It is this body within ISO that is closest to covering the same subject matter as the Codex Committee on Food Import and Export Inspection and Certification Systems (CCFICS).

12. To date, Codex is member of the following CASCO groups:

- CASCO STAR (Strategic Alliance and Regulatory Group);
- CASCO WG 29 (Requirements for bodies certifying products, processes and services, revision of ISO/IEC Guide 65).

Codex is one of CASCO's 19 A-liaisons.

13. Apart from its participation in WG 29 and STAR, Codex also attended:

- the 27<sup>th</sup> CASCO plenary meeting held in Geneva, Switzerland (6-7 October 2011);
- the CASCO/STAR meeting in October 2011 where Dr. Selma Doyran made a presentation of the activities of the CAC.

14. CASCO is currently developing the following documents:

- ISO/IEC TS 17021-2, *Conformity assessment — Competence requirements for certification auditing of environmental management systems*
- ISO/IEC TS 17021-3, *Conformity assessment — Requirements for third party certification auditing of quality management systems — Competence requirements*
- ISO/IEC 17024, *Conformity assessment — General requirements for bodies operating certification of persons*
- ISO/IEC 17065, *Conformity assessment — General requirements for bodies operating product certification systems*
- ISO/IEC 17067, *Conformity assessment — Fundamentals of product certification*

15. CASCO established a Joint Working Group with ISO/TC 34/SC 17 for the revision of ISO 22003:2007, *Food safety management systems — Requirements for bodies providing audit and certification of food safety management systems*. This will address in more detail the competence criteria for food safety management system auditors.

16. ISO/IEC 17020:2012, *Conformity assessment — Requirements for the operation of various types of bodies performing inspection* and ISO/IEC TS 17022:2012, *Conformity assessment — Requirements and recommendations for the content of a third-party audit report on management systems* were both published in March 2012.

#### Codex and ISO/TC 34 Cooperation

17. There is a long history of collaboration between the Codex Committees and ISO/TC 34, *Food products*. ISO/TC 34 supports the establishment of an ongoing and sustainable framework for collaboration between Codex and ISO, in order to enhance the mutual coordination of work and the elimination of duplication and contradictions. This also includes interest to support any joint or collaborative communication on each others' work.

18. Codex and ISO activities are complementary. Codex, as a governmental organization, prepares documents to assist governments in their statutory and regulatory work to protect their citizens from health hazards caused by food consumption. ISO, as a non-governmental organization, prepares standards in particular on test methods to assist stakeholders along the whole food chain to fulfil both the statutory and regulatory requirements, as well as the requirements of consumers of these products. ISO/TC 34 also works on how to involve more developing countries in the works.

19. Since its creation in 1947, ISO/TC 34 has published more than 780 ISO deliverables (International Standards, Technical Specifications and Technical Reports). 65 % of these documents are test methods. See [Annex 1](#) for the structure of ISO/TC 34 and a list of projects/publications of interest to Codex.

20. In addition to dedicated work programmes in the sub-committees, several published standards and on-going work items which are under the direct responsibility of ISO/TC 34, may also be of interest to Codex:

- ISO 26642:2010, *Food products — Determination of the glycemic index (GI) and relevant classification* (published). Originated from a recognized need to standardize the determination of the glycemic index (GI) of foods for practice and research purposes, particularly with its increasing use as a nutrition claim, this standard sets out a method for the determination of the GI of carbohydrates in foods and the classification of foods into low, medium and high GI.
- ISO 14470:2011, *Food irradiation — Requirements for the development, validation and routine control of the process of irradiation using ionizing radiation for the treatment of food* (published)
- ISO/WD 12824, *Royal Jelly — Specifications* (under development)
- Revision of ISO 2451:1973, *Cocoa beans — Specification* (under development)

21. ISO/TC 34 held its plenary meeting in April 2012 in Nairobi, Kenya in order to foster involvement of African developing countries. A regional workshop on standards contribution to the food sector in Africa was organized during the meeting. There was one representative from Codex Alimentarius present during this workshop.

Concerning the work currently undertaken at the Subcommittee level, ISO/TC 34/SCs are working on the following main topics.

22. ISO/TC 34/SC 4, *Cereals and pulses*

The field of activity of ISO/TC 34/SC 4 covers standardization in the field of Cereals and Pulses as well as their products, in particular terminology, sampling, methods of test and analysis, product specifications and requirements for packaging, storage and transportation.

The Codex Committee on Cereals, Pulses and Legumes is adjourned sine die; however, ISO/TC 34/SC 4 keeps close communication with CAC. CAC sent a representative to attend the last two plenary meetings of SC 4, which provided very good opportunities for bilateral communication.

The following standards and projects might be of interest to CAC:

- ISO 7970:2011, *Wheat (Triticum aestivum L.) — Specification*
- ISO 7301:2011, *Rice — Specification*
- Revision of ISO 5526:1986, *Cereals, pulses and other food grains — Nomenclature* (under development)
- Revision of ISO 5527:1995, *Cereals — Vocabulary* (this standard is planned to be published in 5 languages: English, French, German, Spanish and Chinese) (under development)

### 23. ISO/TC 34/SC 5, *Milk and milk products*

The field of activity of ISO/TC 34/SC 5 covers standardization of methods of analysis and sampling for milk and milk products. In achieving its objectives and based on a request of the FAO/WHO Joint Committee of Government Experts on the Code of Principles concerning Milk and Milk Products in 1961, ISO/TC 34/SC 5 has a close co-operation with the International Dairy Federation (IDF) since 1962 in preparing their standards which are published jointly as ISO-IDF International Standards by ISO since 2001.

Where appropriate, input is provided for ISO/TC 34 and/or IDF/ISO comments to Codex documents.

- Codex Committee on Methods of Analysis and Sampling – receiving documents and attending IAM, WG and CCMAS meetings, providing updates for Codex Stan 234 on standard methods for milk and dairy products
- Codex Committee on Milk and Milk Products (dormant) – did receive documents and attend meetings
- Codex Committee on Food Hygiene – receiving documents, IDF attends the meetings
- Codex Committee on Pesticide Residues – receiving documents, IDF attends the meetings
- Codex Committee on Food Additives - receiving documents, IDF attends the meetings
- Codex Committee on Contaminants in Food – receiving documents, IDF attends the meetings
- Codex Committee on Nutrition and Foods for Special Dietary Uses – receiving documents, WG member, IDF attends the meetings
- Codex Committee on Residues of Veterinary Drugs in Foods – receiving documents, IDF attends the meetings

Nearly all ISO-IDF International Standards are adopted by the Codex Committee on Milk and Milk Products (CCMMP) and, thereafter, are also endorsed by the Codex Committee on Methods of Analysis and Sampling (CCMAS).

Progress in discussions on measurement uncertainty, sampling uncertainty and conformity assessment is closely followed. For the dairy sector it is essential that sampling plans are based on valid statistical principles in order to meet the requirement for fair international trade in milk and milk products.

During the last year IDF – ISO/TC 34/SC 5 provided further input to the drafting committee of the IAM/Codex discussion paper on proprietary methods.

### 24. ISO/TC 34/SC 8, *Tea*

The field of activity of ISO/TC 34/SC 8 covers standardization of tea (*Camellia sinensis*) as well as decaffeinated and instant teas, in particular terminology, sampling, methods of test and analysis, product specifications and requirements for packaging, storage and transportation

The aims of ISO/TC 34/SC 8 are:

- to provide validated methods of analysis
- to provide validated compositional specifications
- to provide guidance on the common understanding of good manufacturing practice
- to facilitate international trade
- to ensure consumer expectations of quality are met

In 2011 SC 8 achieved a milestone in publishing:

- ISO 11287:2011, Green tea — *Definition and basic requirements*, a new standard
- ISO 3720:2011, Black tea — *Definition and basic requirements*, a revised standard

The publication of these standards was achieved through careful and diligent use of the most recent methods of analysis ISO 14502-1:2005, *Determination of substances characteristic of green and black tea — Part 1: Content of total polyphenols in tea — Colorimetric method using Folin-Ciocalteu reagent* and ISO 14502-2:2005,

*Determination of substances characteristic of green and black tea — Part 2: Content of catechins in green tea — Method using high-performance liquid chromatography.*

The current work programme includes:

- the revision of ISO 7513:1990, *Instant tea in solid form — Determination of moisture content (loss in mass at 103°)*
- a preliminary work item, *Extension of the range of measurement of tea components by ISO 14502-2.*
- feasibility to measure theanine in tea
- a project to publish a technical report on *White tea* and investigate the feasibility of developing a standard specification
- a preliminary work item, *Good Manufacturing Practice (GMP) for the production of tea* in collaboration with ISO/TC 34/SC 17.

The current progress and work programme will be reviewed at the next international meeting of ISO/TC 34/SC 8 in June 2012.

#### 25. ISO/TC 34/SC 9, *Microbiology*

The field of activity of ISO/TC 34/SC 9 covers standardization of microbiological analysis of the food chain: from primary production to animal feed and food, including the environment of food production and handling.

The link between TC 34/SC 9 and Codex is made via CCFH.

Main projects of interest for CAC: Standard reference methods exist and are kept up-to-date on *Salmonella*, *Campylobacter*, *Listeria monocytogenes*, *Cronobacter*, *Vibrio*, *Yersinia*, Parasites, etc. New Standard reference methods are being developed on STEC (Shiga Toxine *Escherichia Coli*) and food-borne viruses (HAV and noroviruses by RT-PCR). Another set of standards is being developed on the validation of microbiological methods.

#### 26. ISO/TC 34/SC 10, *Animal feeding stuffs*

The aims of ISO/TC 34/SC 10 are:

- To provide validated methods and analysis for animal feeding stuffs needed for Official Control, Quality Assurance in industry and trade contracts.
- To facilitate international trade of animal feed.
- To develop new standards to provide safe food with the aim of providing safe feed.

#### 27. ISO/TC 34/SC 11, *Animal and vegetable fats and oils*

The field of activity of ISO/TC 34/SC 11 covers standardization of methods of sampling and analysis of animal and vegetable fats and oils.

Many of the methods developed by the committee ISO/TC 34/SC 11 are recommended methods of analysis and sampling in the CODEX Standards for fats and oils. The Committee continues to maintain and update these standards on a regular basis via the ISO systematic review procedure.

The following standards have been published since the last meeting of the Codex Committee on Fats and Oils:

- ISO 9936:2006/Amd 1:2011, *Animal and vegetable fats and oils — Determination of tocopherol and tocotrienol contents by high-performance liquid chromatography — Amendment 1: Updating of reagents and confirmation of statistical data validity*
- ISO 17932:2011, *Palm oil — Determination of the deterioration of bleachability index (DOBI) and carotene content*
- ISO 3656:2011, *Animal and vegetable fats and oils — Determination of ultraviolet absorbance expressed as specific UV extinction*
- ISO 12966-2:2011, *Animal and vegetable fats and oils — Gas chromatography of fatty acid methyl esters — Part 2: Preparation of methyl esters of fatty acids*
- ISO 15753:2006/Amd 1:2011, *Animal and vegetable fats and oils — Determination of polycyclic aromatic hydrocarbons — Amendment 1: Exclusion of olive pomace oil from the scope*
- ISO/TS 21033:2011, *Animal and vegetable fats and oils — Determination of trace elements by inductively coupled plasma optical emission spectroscopy (ICP-OES)*

Currently, the method for measuring the saponification value of oils is being amended to include a calculation method from the fatty acid profile. The method for measuring the fatty acid profile itself is being revised to take account of the technological advances which have taken place in this type of instrumentation in recent years. Also, this revision will help the CCFO in its development of a standard for fish oils as these have many poly-unsaturated fatty acids which can be difficult to detect. The sampling method for fats and oils, ISO 5555:2001, is also being revised to take into account the increase in the use of flexitanks (large single use plastic bags inside ISO Containers). This should help in increasing the use of flexitanks which should allow easier and cheaper in the world trade of the smaller volumes of fats.

The Committee is concerned with three main areas of oils and fats:

- Basic analysis of oils and fats for quality and condition;
- Analysis of contaminants from either processing, transportation or the environment;
- Analysis for adulteration and authentication purposes.

With respect to adulteration, consideration of the linolenic acid content of extra virgin olive oil by CCFO has been removed from the agenda as there was no agreement between the various regions of the world. However, ISO/TC 34/SC 11 has developed two tests for extra virgin olive, the 1,2-diglycerides and the pyropheophytins content, that have proved useful as indicators of the freshness of these oils.

#### 28. ISO/TC 34/SC 2, *Oleaginous seeds and fruits and oilseed meals*

ISO/TC 34/SC 2 covers standardisation of Oilseeds and oilseed meals from the sampling and sample preparation to the analysis in itself.

The main project of interest for CAC is the current revision of ISO 542, *Oilseeds — Sampling*, and the revisions of ISO Standards related to glucosinolate: ISO 9167, *Rapeseed — Determination of glucosinolates content — Method using high-performance liquid chromatography* and ISO 12788, *Rapeseed — Determination of glucosinolates content — Spectrometric method for total glucosinolates by glucose release* and the project on Soya meals ISO 14244, *Oilseed meals — Soya meals — Determination of soluble proteins in potassium hydroxide solution*.

#### 29. ISO/TC 34/SC 14, *Fresh, Dry and Dried Fruits and Vegetables*

The scope of ISO/TC 34/SC 14 is the Standardization in the field of fresh, dry and dried fruits and vegetables, in particular, terminology, sampling, product specifications, requirements for packaging, storage, transportation, methods of tests and analysis.

The aims of SC 14 are:

- To provide validated methods and analysis;
- To facilitate international trade of fresh, dry and dried fruits and vegetables;
- To satisfy consumers' requirements from the point of view of human nutrition;
- To provide guidance and common terminology for the product specifications, storage and transportation of fruits and vegetables.

#### 30. ISO/TC 34/SC 3, *Fruit and vegetable products*

The scope of SC 3 is the standardization in the field of fruit and vegetable products, in particular, tests and analysis, sampling and product specifications.

The aims of SC 3 are:

- To provide validated methods and analysis for fruit and vegetable products/ derived products
- To facilitate international trade of fruit and vegetable products/derived products
- To satisfy consumers' requirements from the point of view of human nutrition

#### 31. ISO/TC 34/SC 16, *Horizontal methods for molecular biomarker analysis*

SC 16 covers standardization of methods of analysis for molecular biomarker analysis. In particular these methods are used in varietal identification, plant pathogen determination and the identification of the products of modern biotechnology in seeds, grains, bulk commodities and processed food ingredients. Though similar techniques are used, the SC does not work in the field of microbiology.



Main links between TC 34/SC 16 and Codex Committees: SC 16 and its members are active at CCMAS when the discussion on biotechnology arose.

Main projects of interest for CAC: Future projects on qualitative analysis and proprietary methods are also either initiated by or of interest to SC 16.

### 32. ISO/TC 34/SC 17, *Management systems for food safety*

ISO/TC 34/SC 17 is in charge of the maintenance of ISO 22000:2005, *Food safety management systems — Requirements for any organization in the food chain* and the rest of the ISO 22000 series.

The latest Technical Specifications published are:

- ISO/TS 22002-1:2009, *Prerequisite programmes on food safety — Part 1: Food manufacturing*. This document specifies requirements for establishing, implementing and maintaining prerequisite programmes (PRP) to assist in controlling food safety hazards. ISO/TS 22002-1:2009 is applicable to all organizations, regardless of size or complexity, which are involved in any manufacturing steps of the food chain and wish to implement PRP in such a way as to address the requirements specified in ISO 22000:2005, Clause 7.
- ISO/TS 22002-3:2011, *Prerequisite programmes on food safety — Part 3: Farming*

ISO/TC 34/SC 17 develop its strategic plan for 2011-2015, this document is available at [http://www.iso.org/iso/iso-tc34-sc17\\_n0177\\_strategy\\_plan\\_2011-21.pdf](http://www.iso.org/iso/iso-tc34-sc17_n0177_strategy_plan_2011-21.pdf)

ISO/TC 34/SC 17 and ISO/TC 234 work closely together on aquaculture food safety issues and on traceability issues in order to be efficient, use the knowledge available and not duplicate work.

33. ISO/TC 34 will continue to offer its full support and cooperation to the Commission with a view to avoiding duplication of work and will adopt, for its own documents, the conclusions of the Commission on all matters concerning food hygiene requirements.

### Codex and ISO/TC 234 (see structure in [Annex 3](#))

34. The increasing importance of seafood as a protein source for the world population, and the increasing internationalization of both seafood production and trade, have led to a need for international standards to enable sustainable development and environmental compatibility of the fisheries and aquaculture sectors.

35. In the process leading to the establishment of ISO/TC 234, it was stressed that the work of the committee should be complementary to and not in competition with ongoing standardization under the auspices of other non-governmental or governmental organizations.

36. ISO/TC 34/SC 17 and ISO/TC 234 work closely together on aquaculture food safety issues and on traceability issues in order to be efficient, use the knowledge available and not duplicate work. There is currently a joint working group, ISO/TC 34/SC 17 – ISO/TC 234 WG: "Aquaculture".

37. ISO/TC 234 held its fifth plenary meeting in Boulogne-sur-Mer, France in November 2011.

### Codex and ISO/TC 147

38. CAC maintains a category A liaison with ISO/TC 147 "Water quality", and especially with sub-committee SC 2 "Physical, chemical and biochemical methods" and sub-committee SC 4 "Microbiological methods".

As water plays an important role in food processing (for all kinds of cleaning purposes, preparation of half-finished food products, production of beverages like beer and lemonades), many International Standards elaborated in ISO/TC 147/SC 2 and SC 4 are, or should be, taken into account.

39. Topics covered by ISO/TC 147/SC 2 range from metal determinations (single or multicomponent methods), anions, cations, to methods for organic substances such as plant treatment agents, or methods for ubiquitous pollutants like phthalates or polycyclic hydrocarbons, PAH.

In the investigations on the quality of food products, International Standards from ISO/TC 147 may be used as basic standards because water is – compared with all food products – the least difficult matrix to be investigated. Standards for water analysis have to reflect the very low occurrence of microbiological target organisms or chemical contaminants in the sample, especially with samples of drinking water. Therefore, standards for water analysis differ from food standards mainly regarding sample preparation and concentration procedures.

It should be stressed as well that all methods from ISO/TC 147/SC 2 have been validated by interlaboratory trials and are only accepted as standards if the results have been found satisfactory.

In addition, standards on analytical quality control are available.

40. In respect to microbiological methods (ISO/TC 147/SC 4), special importance is given to methods on the investigation of microorganisms by culture, e.g. existing standards on the determination of *salmonella*, *campylobacter*, *coliforms* (*E.coli* and other organisms). Growing importance is observed concerning standards for quality assurance (e.g. joint work with ISO/TC 34/SC 9 on QC of media and reagents) as well as adopting molecular methods e.g. quantitative RT-PCR.

#### Codex and ISO/TC 54

41. The ISO/TC 54 *Essential Oils* Committee is dedicated to the study of commercial Essential Oils present in the market and also to the development and updating of the analytical methods for the characterization of these essential oils. The physicochemical and olfactory properties of each essential oil are agreed with the active participation of the members and, after a consensus, the parameters within each standard are defined. The periodic balloting is made by e-mail and every 2 years there is an International Committee Meeting where difficult matters are resolved.

Many of the essential oils tested are being widely used as flavouring agents like oil of lemon, orange, basil, ginger, rosemary, red thyme, Spanish origanum, etc.

42. The 35th CAC meeting might be a good opportunity to start a closer relationship between ISO/TC 54 *Essential Oils* and Codex Alimentarius Commission if this commission decides to include essential oil monographs within their flavouring agents. The ISO standards have characterized essential oils and parameters agreed worldwide. This collaboration will lower tests analysis by organizations in liaison with ISO. The ISO/TC 54 Committee started a couple of years ago a close relationship with the European Pharmacopoeia and today many essential oils standards within the EP have been updated and new ones included.

The harmonization of the standards is very important for the flavouring business to improve its fluency.

The following standards were published last year:

- ISO 3065:2011, *Oil of eucalyptus Australian type, containing a volume fraction of 80 % to 85 % of 1,8-cineole*
- ISO 3140:2011, *Oil of sweet orange [Citrus sinensis (L.) Osbeck], obtained by physical extraction of the peel*

The current work programme includes:

- ISO 212:2007/DAMd 1, *Essential oils — Sampling — Amendment 1*
- ISO/FDIS 1342, *Essential oil of rosemary (Rosmarinus officinalis L.)*
- ISO/CD 3064, *Essential oil of petitgrain, Paraguayan type (Citrus aurantium L. ssp. aurantium, syn. Citrus aurantium L. ssp. amara var. pumilia)*
- ISO/FDIS 3517, *Essential oil of neroli (Citrus aurantium L., syn. Citrus amara Link, syn. Citrus bigaradia Loisel, syn. Citrus vulgaris Risso)*
- ISO/FDIS 3528, *Essential oil of mandarin, Italian type (Citrus reticulata Blanco)*
- ISO/DIS 4716, *Essential oil of vetiver [Vetiveria zizanioides (L.) Nash]*
- ISO/DIS 4719, *Essential oil of spike lavender (Lavandula latifolia (L.f.) Medikus), Spanish type*
- ISO/DIS 4731, *Essential oil of geranium (Pelargonium x ssp.)*
- ISO/DIS 9235, *Aromatic natural raw materials — Vocabulary*
- ISO/DIS 9841, *Essential oil of hyssop (Hyssopus officinalis L. ssp. officinalis)*
- ISO/DIS 10115, *Essential oil of tarragon (Artemisia dracunculus L.), French type*
- ISO/WD 16928, *Essential oil of ginger [Zingiber officinale Rosc.]*

#### Conclusion

43. It is recognized that the Commission's members, as governments, have the authority to regulate at the national level and that ISO, as a producer of voluntary International Standards, does not. In the framework of good regulatory practice, as promoted at international and regional levels, International Standards and Guides may be considered useful by regulators as effective and efficient tools to achieve important regulatory mandates, manage risk and address market confidence.



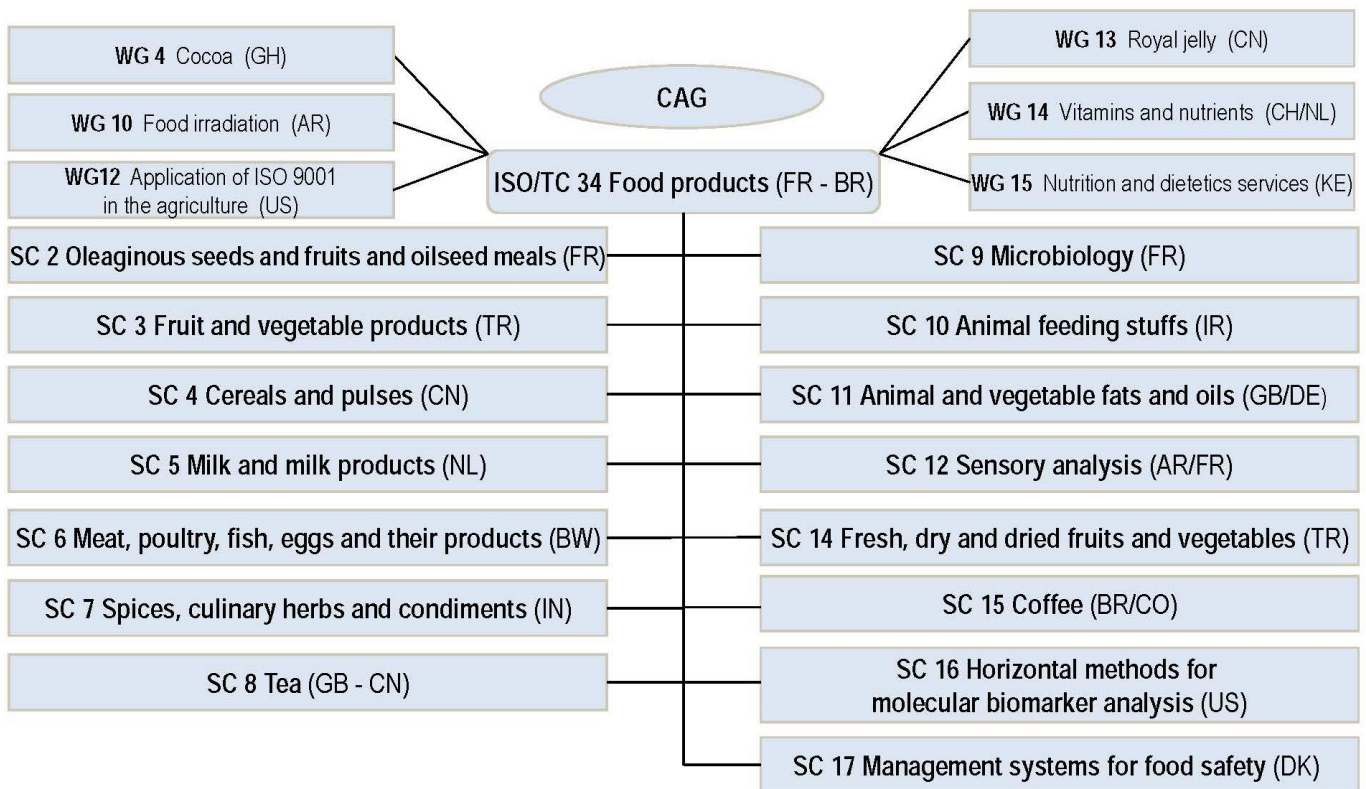
44. ISO considers that by using its International Standards, regulatory authorities will achieve their aims in public health and safety at less cost to manufacturers and consumers. Using International Standards also assists countries to meet their WTO TBT and SPS Agreement obligations.

45. For any further information on technical developments within ISO that have been reported in this paper, please do not hesitate to contact Mrs. Marie-Noëlle Bourquin at ISO Central Secretariat ([bourquin@iso.org](mailto:bourquin@iso.org)).

## Annex 1

Structure of ISO/TC 34, *Food products*

ISO/TC 34 comprises 51 Participating countries and 58 Observing countries. ISO/TC 34 secretariat is held jointly by France and Brazil (twinning arrangement). ISO/TC 34 has established several substructures [active structures are: 15 Subcommittees (SC) and 5 Working Groups (WG)]; the development of important horizontal standards being under the responsibility of Working Groups directly reporting to ISO/TC 34. These substructures are the following:



It can be noted that out of these 15 Subcommittees, only 4 are horizontal in scope (ISO/TC 34/SC 9, ISO/TC 34/SC 12, ISO/TC 34/SC 16 and ISO/TC 34/SC 17).

**Selected ISO/TC 34 work items and publications of interest to Codex**  
**(as of March 2012)**

<b>Project number</b>	<b>Title</b>	<b>Status</b>
ISO 22000:2005	<i>Food safety management systems — Requirements for any organization in the food chain</i>	Published in 2005. Confirmed in 2009.
ISO/TS 22002-1:2009	<i>Prerequisite programmes on food safety — Part 1: Food manufacturing</i>	Published in 2009.
ISO/TS 22003:2007	<i>Food safety management systems — Requirements for bodies providing audit and certification of food safety management systems</i>	Published in 2007.
ISO/TS 22004:2005	<i>Food safety management systems — Guidance on the application of ISO 22000:2005</i>	Published in 2005. Confirmed in 2009.
ISO 22005:2007	<i>Traceability in the feed and food chain — General principles and basic requirements for system design and implementation</i>	Published in 2007.
ISO 22006:2009	<i>Guidelines on the application of ISO 9001 for crop production</i>	Published in 2009
ISO 26642:2010	<i>Food products — Determination of the glycaemic index (GI) and recommendation for food classification</i>	Published in 2010
ISO/TS 22964:2006	<i>Milk and milk products — Detection of Enterobacter sakazakii</i>	Published in 2006. Confirmed in 2009.
ISO TS 22117:2010	<i>Microbiology of food and animal feeding stuffs — Specific requirements and guidance for proficiency testing by interlaboratory comparison</i>	Published in 2010
ISO/TS 15495:2010 IDF/RM 230	<i>Milk, milk products and infant formulae — Guidelines for the quantitative determination of melamine and cyanuric acid by LC-MS/MS</i>	Published in 2010
ISO 24276:2006	<i>Foodstuffs — Nucleic acid based methods of analysis for the detection of genetically modified organisms and derived products — General requirements and definitions</i>	Published in 2006. Confirmed in 2009.
ISO 21571:2005	<i>Foodstuffs — Methods of analysis for the detection of genetically modified organisms and derived products — Nucleic acid extraction</i>	Published in 2005. Confirmed in 2009.
ISO 21569:2005	<i>Foodstuffs — Methods of analysis for the detection of genetically modified organisms and derived products — Qualitative nucleic acid based methods</i>	Published in 2005. Confirmed in 2009.
ISO 21570:2005	<i>Foodstuffs — Methods of analysis for the detection of genetically modified organisms and derived products — Quantitative nucleic acid based methods</i>	Published in 2005. Confirmed in 2009.
ISO 21572:2004	<i>Foodstuffs — Methods for the detection of genetically modified organisms and derived products — Protein based methods</i>	Published in 2004 Being revised
ISO/TS 21098:2005	<i>Foodstuffs — Nucleic acid based methods of analysis of genetically modified organisms and derived products — Information to be supplied and procedure for the addition of methods to ISO 21569, ISO 21570 or ISO 21571</i>	Published in 2005. Confirmed in 2011.
ISO 14470:2011	<i>Food irradiation — Requirements for the development, validation and routine control of the process of irradiation using ionizing radiation for the treatment of food</i>	Published in 2011

## Annex 2

## Overview of ISO 22000 technical assistance projects carried out in 2011 and those planned for 2012

### Objective 1: Improve awareness of key stakeholders in developing countries of the role of standardization in economic growth, world trade and sustainable development

Title	Venue/Host	Dates	Total participants	Sponsored participants	Beneficiary countries
National seminar on ISO 22000 - Food safety management systems	Sarajevo, Bosnia & Herzegovina	30 May-1 June 2011	61	0	Bosnia & Herzegovina
National seminar on ISO 22000 - Food safety management systems	Harare, Zimbabwe	1-3 June 2011	60	0	Zimbabwe
National seminar on ISO 22000 - Food safety management systems	Belgrade, Serbia	October 2012 (tbc)	40	0	Serbia
National seminar on ISO 22000 - Food safety management systems	Karthoum, Sudan	November 2012 (tbc)	40	0	Sudan

### Objective 2: Build capacity of ISO members and stakeholders involved in developing the standardization infrastructure and participating in international standardization work

Title	Venue/Host	Dates	Total participants	Sponsored participants	Beneficiary countries
Regional workshop on fisheries safety, quality, productivity and sustainability	Bali, Indonesia	13-16 September 2011	46	37	Brunei Darussalam (self-sponsored), Cambodia, Fiji, Indonesia, Dem. P. Rep of Korea, Lao People's Democratic Rep., Malaysia, Mongolia, Myanmar, Papua New Guinea, Philippines, Singapore (self-sponsored), Thailand, and Viet Nam.
Regional workshop Standards contribution to the food sector in Africa – ISO/TC 34- Food products	Nairobi, Kenya	24-25 April 2012	120	48	Argentina, Benin, Botswana, Burkina Faso, Burundi, Lesotho, Cameroon, Central African Rep., Colombia, Congo, the Rep. of, Côte d'Ivoire, Cuba, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Indonesia, Kenya, Madagascar, Malawi, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Thailand, Togo, Uganda, Zambia and Zimbabwe

**Annex 3****Structure of ISO/TC 234, Fisheries and aquaculture**

ISO/TC 234, Fisheries and aquaculture, was established in February 2007. The current list of member countries comprises 21 participating members and 17 observing members.

In addition to Codex Alimentarius Commission (CAC), four international organizations are in liaison: the Food and Agriculture Organisation of the United Nations (FAO), the International Union for the Conservation of Nature and Natural Resources (IUCN), the Federation of European Aquaculture Producers (FEAP), the Network of Aquaculture Centres in Asia-Pacific (NACA), the World Organisation for Animal Health (OIE) and the World Wide Fund for Nature (WWF).

**The following working groups are established:**

ISO/TC 234/AG 1	Aquaculture advisory group
ISO/TC 234/WG 1	Traceability of fish products
ISO/TC 234/WG 2	Environmental monitoring of the seabed impacts from marine finfish farms
ISO/TC 234/WG 3	Aquaculture technology
ISO/TC 234/WG 4	Food safety for aquaculture farms
ISO/TC 234/WG 5	Methodology for sea lice counts
ISO/TC 234/WG 6	Calculation of FIFO (fish in fish out) and FCR (feed conversion ratio)
ISO/TC 234/WG 7	Traceability of shellfish including crustaceans and molluscs

**Scope of the work of ISO/TC 234:**

Standardization in the field of fisheries and aquaculture, including, but not limited to, terminology, technical specifications for equipment and for their operation, characterization of aquaculture sites and maintenance of appropriate physical, chemical and biological conditions, environmental monitoring, data reporting, traceability and waste disposal.

Excluded:

- methods of analysis of food products and traceability covered by ISO/TC 34;
- personal protective clothing covered by ISO/TC 94;
- environmental monitoring covered by ISO/TC 207.

More information on the scope of work can be found in the business plan of ISO/TC 234: <http://www.iso.org/bp>

**Standards and Work Items of interest to CAC:**

- ISO 12875:2011, *Traceability of finfish products — Specification on the information to be recorded in captured finfish distribution chains*
- ISO 12877:2011, *Traceability of finfish products — Specification on the information to be recorded in farmed finfish distribution chains*
- ISO/NP 16566, *Traceability of finfish products — Specification on the information to be recorded in farmed finfish distribution chains*
- ISO/NP 16567, *Traceability of finfish products — Specification on the information to be recorded in farmed finfish distribution chains*
- *Traceability of crustacean products — Specification on the information to be recorded in farmed crustacean distribution chains*
- *Traceability of crustacean products — Specification on the information to be recorded in captured crustacean distribution chains*
- *Traceability of molluscan products — Specification on the information to be recorded in farmed molluscan distribution chains*
- *Traceability of molluscan products — Specification on the information to be recorded in captured molluscan distribution chains*