

CODEx ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda Item 10

MAS44/CRD03

May 2025

ORIGINAL LANGUAGE ONLY

JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON METHODS OF ANALYSIS AND SAMPLING

44th Session

Virtual

5 – 8 May and 14 May 2025

FINAL REPORT OF THE 35th MEETING OF INTERNATIONAL ORGANISATIONS WORKING IN THE FIELD OF METHODS OF ANALYSIS AND SAMPLING (INTER-AGENCY MEETING; IAM-35)

(Prepared by the Chair and Secretariat of the Inter Agency Meeting)

08.00 – 10.00h, Wednesday, 23 April 2025

Present

Anne Bridges	AACC (Cereals & Grains Association)
Jody Burnette	AACC (Cereals & Grains Association)
Paul Wehling	AACC (Cereals & Grains Association)
Josh Arbaugh	AAFCO
Melanie Downs	AOAC INTERNATIONAL
David Mangan	AOAC INTERNATIONAL
Katerina Mastovska	AOAC INTERNATIONAL
Darryl Sullivan	AOAC INTERNATIONAL (Vice Chair)
Tiffanie West	AOCS
Verna Carolissen	CAC
Zhang Ling Ping	CAC
Nikoletta Faragó	CCMAS Host Country Representative
Zsuzsa Farkas	CCMAS Host Country Representative
Gretel Bescoby	FOSFA International
Markus Lacorn	ICC
Barry McCleary	ICC
Valentina Narducci	ICC
Karen Pardoe	ICUMSA
Aurélie Dubois	IDF
Richard Johnson	IDF
Michael Sussman	ISO/TC 34/SC 16
Bert Pöpping	MoniQA
Eystein Oveland	NMKL
Richard Cantrill	USP-FCC (Chair)
Claire Chisolm	USP-FCC
Gina Clapper	USP-FCC (Secretariat)

Invited

Richard Coghlan	Australia/Co-Covenor of the Physical Working Group on Endorsement
Patrick Gray	USA/Co-Convenor of the Physical Working Group on Endorsement

Apologies

Ray Shillito	ISO TC/34 SC16
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1. Chair's Welcome / Introduction

The attendees were welcomed by Dr. Cantrill, Chair, who thanked the IAM members for attending the virtual meeting.

2. Apologies

See above.

3. Introduction of Attendees

The Chair asked for introductions.

4. Adoption of Agenda

The Agenda was adopted without changes.

5. Report of the Previous Meeting IAM-34, 2024

There were no corrections to the report of the 34th meeting.

6. CCMAS43 Discussion Papers

6.1 Numeric performance criteria for the determination of nitrate and nitrite ions in food matrices

This topic had been raised at the 43rd session of the Codex Committee on Methods of Analysis and Sampling (CCMAS43) following a request from the 51st session of the Codex Committee on Food Additives (CCFA51) for performance criteria for adopted and lowest proposed maximum levels (MLs) and methods that measure nitrate and nitrite separately or together. An electronic working group (EWG) was formed to review methods and identify which fall into the appropriate category; the information is presented in three appendices. CCMAS needs to consider 1) the performance criteria, 2) where there are gaps and where no methods are available should more work to be done by CCMAS, 3) examine the validation data for the methods in Appendix 3. There is optimism that this item can be closed out this year.

6.2 Methods of analysis for protein in Quinoa

According to the circular letter (CL), multi-lab data were contributed by certain member countries and now the EWG is asking for more information from the contributors, such as catalysts and reagents used, their volumes and concentrations and any method variations that might have been used during the validation process. The method in question is ISO 1871, which was endorsed at CCMAS43 as Type IV. It is hoped that the topic of method extension can be raised and discussed more generally in the future.

6.3 Harmonization of names and format for principles identified in CXS 234

The International Dairy Federation (IDF) indicated that there was agreement in principle about harmonisation of the method principles, but harmonization of the names used for the provisions is a matter that should be considered by the relevant commodity committee in order to avoid over-simplification and loss of important information. This issue was raised because of the proposals contained in CX/MAS 25/44/12, Annex D. IAM was advised that the authors of the document indicated that this is a first step to try to harmonise provisions and there is no intention to finalise proposed changes at this time. It was indicated that some of this work may be limited by the database structure when developed by/for the Codex Secretariat. It was highlighted that work was being undertaken by ISO/TC 347, data-driven agrifood systems, in harmonisation of formats, use of machine learning and data management in standards that apply to agriculture and food.

No objection was received to the proposed CRD to be submitted by IAM to alert CCMAS of the concerns [CRD 18].

7. Update on CXS 234 method review progress

7.1 Fruit juices package

The International Fruit and Vegetable Juice Association (IFU) was unable to join the call on this work package. There was no discussion on this topic.

7.2 Cocoa products and chocolate package

The EWG reviewing this package was chaired by Serbia and co-chaired by the US. A table of revisions has been produced for consideration by the virtual working group (VWG) and CCMAS plenary. Many of the methods were produced by IOCCC but an organizational name change to International Confectionary Association (ICA) has led to the need to make numerous editorial changes. Two major changes for discussion include: moisture using Karl Fischer being changed to oven drying (proposed as Type IV) and to retain the Karl Fisher method for moisture (determined as water) as Type II. The EWG did not receive a lot of comments

on the revisions. Variations in method typing may be a source of discussion during the VWG. The Codex Secretariat commented that information about the association will be up on the website.

7.3 The Codex Secretariat comments on amendments to CXS 234 (MAS44/CRD07)

It was explained that following the committee review of the work packages, the Codex Secretariat had to align the commodity standards with the methods slated for the *Recommended methods of analysis and sampling* (CXS 234-1999). During this review they found that some provisions and/or methods in Codex standards were missing from CXS 234. The Codex Secretariat has asked CCMAS to resolve the issues in CRD07 so that corrections to CXS 234 can be completed. The Codex Secretariat suggested that this item should be deferred to CCMAS45 to allow delegations and experts to review the document. The Chair indicated that ISO 5509 had been updated and replaced and could be deleted.

7.4 Determination of moisture in whey powder

IDF indicated that the issue relates to two methods to determine moisture in whey powder, one of which was removed by IDF 20 years ago based on its poorer precision data. This is a continuation of a previous discussion about interpretation of raw data. The EWG recalculated the precision data etc. according to published methods and assessed the outcome. Two points of view were expressed at the conclusion of this work, but they are incompatible. The EWG has presented both for the committee to decide upon, but it is up to CCMAS to finalise this issue without the requirement for a full method comparison study.

8. **Other CCMAS Papers**

8.1 CCMAS agenda and FAO/WHO matters

No comments were raised by the members.

8.2 Endorsement of methods of analysis provisions and sampling plans in Codex standards

AOAC, AACC and the International Association for Cereal Science and Technology (ICC) discussed the proposal for replacement of a method for dietary fibre, which was requested by the 44th session of the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU44) with the inclusion of a footnote. It was commented that the proposed footnote addresses not an analytical method issue, but a regulatory concern, which seems already covered by the Codex fibre definition: if an isolated or synthetic carbohydrate polymer is not accepted as dietary fibre according to the Codex definition by competent authorities, but is captured in any analytical method, then it should be subtracted from the final measurement. The proposed footnote appears therefore redundant. If CCMAS44 determines that such a footnote is required, then it should apply to all total dietary fibre methods in CXS 234-1999.

It was noted that there is a possible problem with vitamin A determinations in follow-up formula (FuF). The proposed method AOAC 2012.10 / ISO 20633 is suitable for added vitamin A forms and not the constituent retinol esters. Since FuF could contain whole milk, it was suggested that the easiest way forward is to use the same provision that this method was adopted for in the infant formula standard and retain AOAC 992.04 and 992.06 methods in CXS 234 as Type III.

The members were informed that there are work packages remaining in CXS 234, including food for special dietary purposes. Work has already been initiated for infant formula methods, which were only updated in the last decade, so the review should be relatively easy. Further revisions of the methods in individual work packages would continue with certain methods retained and others replaced.

When considering the methods of analysis in CXS 234 (covered under agenda items 6 & 7), members did not indicate any particular items of note. The VWG Chair noted that several entries in the fruit juice and nectars package did not have MLs and remarked that a resolution may need to be sought although the circular letter may have generated some helpful comments.

8.3 Information document: *General guidelines on sampling* (CXG 50-2004) – e-book with sampling plan applications

New Zealand and Germany are co-leading this WG. There are a few remaining questions to be answered, and a discussion will be held during the CCMAS Plenary. It was noted that although the revised CXG 50 is a good outcome, many existing Codex sampling plans may need to be revisited and possibly referred back to the relevant for committee.

9. **Update by IAM members and IAM Housekeeping/Standing Items**

9.1 Brief Exchange of Reports and Information/Concerns of Members (See Annex A)

IAM members were invited to provide report of their activities for presentation at a post-CCMAS round-up meeting. Brief text and links could be supplied to the IAM secretariat for distribution as an appendix to this

report. The Chair asked that items for discussion could be dealt with separately but summarised with weblinks (e.g. meetings) to avoid a large volume of attachments to this report.

9.2 Update by Chair, Vice-Chair and Secretariat

For presentation at the post CCMAS meeting.

10. Any Other Business

10.1 Update on progress on methods for allergen detection

Although the IAM members were given a brief update on progress in this project, no documents were available at the time of the IAM meeting.

10.2 Proposal to hold the next virtual meeting of IAM in early June.

10.3 The delegates were encouraged to ensure they were registered for the VWG and plenary meeting. The separate sampling webinar was noted.

11. Provisional Date and Place of Next Meeting

Tentatively set for 7 March 2026, Budapest, but the Codex Secretariat will confirm arrangements.

12. Close of Meeting

The Chair closed the meeting with thanks to the participants.

Annex A**AACC (Cereals & Grains Association)**

The Cereals & Grains Association will host its 2nd Chemistry, Quality, and Technology Conference on November 12–13, 2025, at the InterContinental Saint Paul Riverfront in Saint Paul, Minnesota. Building on the technical focus of our inaugural event, we are excited to dive deeper into the methods of analysis, science, and innovations shaping the future of cereals and grains through the meeting scope, "Research and Innovation in Methods and Processes to Optimize Finished Products."

<https://www.cerealsgrains.org/meetings/Pages/2025Conference.aspx>

The new Dietary Fiber Method 32-61.01, Rapid Determination of Insoluble, Soluble, and Total Dietary Fiber with Enzymatic-Gravimetry and Liquid Chromatography improves on existing methods, providing more accurate measurements by better simulating transit time of human digestion.

<https://www.cerealsgrains.org/resources/Methods/Pages/default.aspx>

A new Laboratory Proficiency Rating Program (LPRP) series focusing on alternative flours, including pulses and quinoa, has also being introduced.

<https://www.cerealsgrains.org/resources/LPRP/Pages/default.aspx>

AAFCO

The Association of Public Health Laboratories (APHL) and US-FDA have collaborated on a new online course, "LB8020W - Laboratory Sampling" that addresses laboratory sampling principles and challenges. This course is aligned with the competencies developed as part of the [National Curriculum Standard Laboratory Curriculum Framework](#). It includes different sampling techniques, methods to control error, and the impacts of laboratory sampling procedures. At the completion of this seven-module course, learners will be able to:

- Identify the concepts of theory of sampling
- Recognize the physical characteristics of laboratory samples that impact laboratory sampling
- Identify sources of error in laboratory sampling
- Recognize the purpose of non-selection processes in laboratory sampling
- Recognize the purpose of selection processes in laboratory sampling
- Select appropriate procedures for laboratory sampling
- Identify QA/QC policies and procedures to monitor laboratory sampling

The Laboratory Sampling course, along with other courses in the Laboratory Curriculum Framework catalog, can be accessed via [APHL's Learning Center](#) and with a free [APHL.org account](#).

The Association of American Feed Control Officials (AAFCO) Proficiency Testing Program recently announced a special study to evaluate laboratory sampling error. Proficiency testing programs provide laboratories with previously ground, uniform test items that evaluate only analytical error. This study aims to include the error in the sample preparation process by providing unground materials on a quarterly basis. Each test item is hand-manufactured by individually weighing unground feed ingredients to achieve a ~1 kg portion. Participating laboratories will process the test items and report test results for crude protein, non-protein nitrogen, lysine, crude fat, crude fiber, acid detergent fiber, neutral detergent fiber, calcium, phosphorus, sodium, magnesium, potassium, zinc, copper, and selenium. Analytes include a range of concentrations from mg/kg to % and are inclusive of both inherent and liberated analytes. For information, contact pt@aaftco.org.

AOAC INTERNATIONAL

AOAC INTERNATIONAL will hold Annual Meeting on August 23-28, 2025 in San Diego, CA, USA (<https://www.aoac.org/2025-annual-meeting-exposition/>).

Below are highlights and updates on selected AOAC science programs and projects (see <https://www.aoac.org/aoac-science-and-supporting-programs/> for more details). A list and sign-up information for active working groups developing AOAC consensus standards (Standard Method Performance Requirements, SMPRs and Standard Guidance documents) can be found at <https://www.aoac.org/active-groups/>.

Information about upcoming events, new standard development initiatives, calls for comments, methods, experts etc. can be obtained through AOAC's weekly e-newsletter Spectrum (to subscribe: <https://multibriefs.com/optin.php?aoac>). Please contact: scienceprograms@aoac.org with any questions.

- Nutrients:
 - Stakeholder Program on Infant Formula and Adult Nutritionals (SPIFAN)
 - [AOAC SMPR 2024.006](#) for Milk fat globule membrane (MFGM) proteins - [Call for methods](#) open until September 5, 2025
 - New candidate methods considered for AOAC First Action Official Method status: Phospholipids, A1/A2 beta-Casein
 - Novel Foods from Alternative Protein Sources (program launched in 2024)
 - Program launched in 2024
 - First draft SMPR developed for Total amino acid analysis – [Call for public comments](#)
 - Next SMPR being developed for Free amino acids – [Join the WG](#)
 - Dairy Protein Hydrolysates (program launched in 2024)
 - First SMPR being developed for Molecular weight distribution – [Join the WG](#)
 - Dietary Fiber and other Carbohydrates (new program launched in 2025)
 - First priority: Development of end-user guidance for dietary fiber methods to review currently available methods and provide guidance on method selection (decision tree) and to identify method gaps and potential performance issues – [Call for WG members](#)
 - Vitamins in Foods and Dietary Supplements
 - New program in development (to be launched later in 2025)
- Chemical Contaminants and Residues:
 - Recently developed standards (Standard Method Performance Requirements, SMPRs) – in the process of reviewing candidate methods for AOAC First Action Official Method status:
 - [AOAC SMPR 2023.002](#) for Pyrrolizidine Alkaloids
 - [AOAC SMPR 2023.003](#) for PFAS in Food
 - [AOAC SMPR 2024.001](#) for Pesticide Residues in Color Additives from Natural Sources
 - [AOAC SMPR 2023.004](#) for Residual Solvents in Color Additives from Natural Sources
 - [AOAC SMPR 2024.002](#) for Trace Elemental Contaminants (As, Cd, Hg, Pb)
 - [AOAC SMPR 2024.005](#) for Ethylene Oxide Residues
 - AOAC First Action Official methods with recently completed, ongoing and expected collaborative studies (to be considered for AOAC Final Action Official Method Status):
 - 2- and 3-MCPD, 2- and 3-MCPD esters and glycidyl esters in infant and adult/pediatric nutritional formula by GC-MS/MS (AOAC 2018.03)
 - Acrylamide in selected foods by LC-MS/MS (AOAC 2023.01)
 - Chlorate and perchlorate in a broad range of food commodities, including baby food, nutritional formulas and ingredients by LC-MS/MS (AOAC 2022.06)
 - Furan and alkyl furan in selected foods by HS-GC-MS (combined two First Action methods – study protocol in development)
 - Highlights of current and upcoming projects:
 - Draft SMPR developed for Trace Elements (Ag, Al, Ba, Co, Cr, Cu, Mn, Mo, Ni, Sb, Se, Sn, Ti, V, and Zn)
 - Draft SMPR developed for targeted analysis of PFAS in Food Packaging
 - [Pesticide Residues in Spices and Herbs](#) – new initiative in funding stage
 - Microplastics – new initiative in development
- Gluten & Food Allergens:
 - Recently developed AOAC standard guidelines:
 - Food Allergen Method Validation Guidelines - published as [OMA Appendix M](#) replacement
 - Qualitative Gluten Method Validation Guidelines – to be published soon
 - Quantitative Gluten Method Validation Guidelines – to be published soon
 - Current initiative highlight:
 - Development of end-user guidance (incl. method verification, method selection and result interpretation)
- Authenticity:
 - Botanical Identity Verification – Revision and expansion of current standard guidelines (OMA Appendix K) – [Join the WG](#)
 - [Functional Mushrooms](#) - New initiative launched in 2025

- [Organic Authenticity](#) - New initiative to be launched in 2025 with the first priority to standardize methodology for nitrogen fertilizer fraud in organic production
- **Microbiology:**
 - [AOAC SMPR 2024.003](#) for Detection, Identification, and Characterization of *Cyclospora cayentanensis* – [Call for methods](#)
 - SMPR being developed for *Legionella* in water (potable and nonpotable) – [Join the WG](#)
 - Ongoing standard development initiative on Metagenomics – [Join WGs](#)
 - Microbiological Method Validation Guidelines
 - New AOAC initiative launched in 2025 to revise and expand standard guidelines (OMA Appendix J)
 - [Join WG subgroups](#) to develop guidelines for: (1) qualitative methods (detection of culturable bacteria); (2) analytical confirmation; (3) quantitative methods.

ICC

21st ICC Conference 2025, Vienna, Austria | September 23-25, 2025 CONFERNECE WEBSITE: <https://www.icc-conference.com/>

It is a great pleasure to welcome you to the 21st ICC Conference in the beautiful city of Vienna. This year's event, organized in collaboration with BOKU University Vienna, holds special significance as we celebrate the 70th anniversary of the ICC!

The conference program will address a wide range of topics crucial to the cereal sector, with a focus on sustainability and future challenges:

- the impact of climate change on cereal production, the sustainability of cereal products, and the quality of raw materials and grain storage
- processing and cereal products, highlighting technological innovations, novel cereal-based products, and the growing role of cereal and legume proteins
- grain nutrition and health: physiological properties and health benefits of cereal products, how they can support dietary guidelines and address challenges related to allergies and intolerances
- new methods for quality assessment, detections of mycotoxins and other contaminants
- market trends and consumer demands, including food trends, media influence, consumer perceptions, international trade, and supply chains.
- biodiversity of cereals and grains including novel and ancient grains, pseudocereals and legumes, as well as their role in global food security.

IDF

The International Dairy Federation is non-for-profit non-governmental international organisation. Its 40 members are national dairy organisations that represent the full dairy chain, in their country, including farmers, processors, suppliers, academia, laboratories, government, etc. Its mission is to help nourish the world with safe and sustainable dairy, doing so through sharing knowledge and best practices, developing and contributing to science and evidence-based International Standards, serve as the voice of the dairy sector to Intergovernmental organisations, and providing a forum to reach consensus on key dairy issues.

IDF and ISO built a unique collaboration to develop standards for methods of analysis and sampling for milk and milk products, benefiting from each organisation leading expertise.

Based on the request from Codex, IDF and ISO agreed in 1963 to co-operate with each other to develop analytical standard for milk and milk products. Since 2001, the IDF/ISO standards are the same document. This joint programme has nearly 200 joint IDF/ISO standards published, many of which are referenced by Codex to verify provisions in its dairy standards. The joint IDF/ISO programme is built on a democratic consensus process that ensures technical rigor while considering economic and production contexts. IDF's collaborative efforts extend beyond ISO to organizations like AOAC International, ISDI, ICAR, and others.

Each year, the IDF/ISO Analytical Week gather international experts to advance the development of the IDF/ISO standards, gather test and equipment manufacturers and shares latest development and insights. Last April, this event was held in Anand, the milk capital of India. The next meeting will be held in May 2026, likely in Europe, to be confirmed. Examples of current work include urea, pH, somatic cell counting, yoghurt bacteria, melting properties of ice-cream, etc.

The main IDF flagship event is the IDF World Dairy Summit that will next be held 15-18 October 2025 in Santiago, Chile. Sessions covering all the dairy chain will gather hundreds of speakers and a thousand participant. A special session on standards and food safety are schedule, information and programme online: www.idfws2025.com

Recent publications and information available : www.fil-idf.org

ISO/TC 34 Food Products Publications

ISO 712:2024 Cereals and cereal products — Determination of moisture content — Part 1: Reference method and Part 2: Automatic drying oven method

ISO 24557:2024 Pulses — Determination of moisture content — Air-oven method

ISO 1003:2025 Spices and condiments — Whole/pieces and ground dried ginger (*Zingiber officinale* Roscoe) — Specification

ISO 5553:2024 Meat and meat products — Detection of condensed phosphates

ISO 7158:2024 Meat and meat products — Determination of nitrite and nitrate content — Ion chromatography method

Revisions

ISO 22000: <https://committee.iso.org/sites/tc34sc17/home/news/content-left-area/news-and-updates/news-march-2025.html>

MICROBIOLOGY:

SC 9 'Microbiology' of ISO/TC 34 'Food products' covers the development of methods in the field of microbiological analysis of the food chain from primary production stage to food and feed products including food production and handling. SC 9 focuses its work on spoilage, pathogenic micro-organisms (including their toxins), viruses and parasites. Horizontal topics such as development of standard for genomic analysis as well as general standard for method validation are included in the scope of the SC 9.

https://committee.iso.org/files/live/sites/tc34sc9/files/Video/SC9_video_FINAL-ld.mp4

ISO Annual Meeting: <https://www.iso.org/annualmeeting>

NMKL

[NMKL](#) (Nordic-Baltic Committee on Food Analysis), a standardization organization developing microbiology, sensory and chemistry methods and procedures and hosting the certification body [NordVal International](#), refer to the following information: NMKL 79th Annual meeting Tartu 14-16 Sept 2025, [NMKL and AOAC Europe Virtual Novel Food Symposium 2 June 2025](#), [NMKL Annual Report 2024](#), [NMKL Newsletters](#), [NMKL 10 was withdrawn in 2025](#).

USP-FCC

USP is in the midst of closing out the work of the 2020-2025 cycle, and preparing for the 2025-2030 cycle. In early May, USP will hold its [2025 USP Convention Meeting](#), where the convention membership will vote on new leadership for our Expert Committees, including the Food Ingredients Expert Committee (FI EC), and vote on resolutions that will guide our work for the next five years.

The FI EC continues to develop new documentary standards, publishing them in the [FCC Forum](#) for public comment. The FCC Forum is always free but requires a login, and we look forward to comments from IAM members on future standards.

Some recent notable documentary standards published in the FCC Forum include:

- A new section added to [Appendix XIX: Olive Oil Guidance, Methods, and Applicable Resources](#), titled "Current Knowledge of Odor Active Volatile Compounds – A Prospective Study of Their Contribution to the Accurate Management of Sensory Characteristics of Virgin Olive Oils" (supported by the Olive Oil Authenticity and Quality Expert Panel)
- A new appendix providing guidance for the honey industry, [Appendix XX: Honey Guidance, Methods, and Applicable Resources](#) (supported by the Honey Expert Panel)
- Revisions to update the methodology and decrease the limit for lead in three filtering aids used for fruit juice and wine: [Bentonite](#), [Activated Carbon](#), and [Diatomaceous Earth](#)
- Proposed omission of the [Brominated Vegetable Oil](#) (BVO) monograph in response to actions by the USA and Canada to remove BVO from the food supply
- New monographs for [Sacha Inchi Oil](#) (supported by the High Value Food Oil Expert Panel) and [Mung Bean Protein](#) (supported by the Dietary Proteins Expert Panel)

As we look toward the new cycle, we expect that work on food colors, spices, infant formula ingredients, and work in the area of adulteration and contamination across food ingredients will be areas of high focus, in addition to continuing to add and revise standards for other food ingredients.