CODEX ALIMENTARIUS COMMISSION

Food and Agriculture Organization of the United Nations

World Health Organization

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Agenda Items 2, 2.1, 3.1, 3.2, 4.1, 4.2, 5.1, 5.2, 6.1, 6.2, 7, 8 and 9 **MAS44/CRD27**

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON METHODS OF ANALYSIS AND SAMPLING

44th Session

Virtual

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COMMENTS OF UGANDA

Agenda Item 2: Matters referred to the Committee by the Codex Alimentarius Commission and other subsidiary bodies

General Comment: Uganda appreciates the progress made by the Codex Alimentarius Commission (CAC) and its subsidiary bodies towards strengthening global food safety standards.

Specific Comments

Uganda further supports the recommendations by CCAFRICA on the inclusion of AOAC 935.47 and AOAC 939.09b into CXS 234-1999 as type III method for the determination of chlorides in dried meats (CXS 350R-2022).

In reference to Support for the Codex Strategic Plan 2026–2031

Uganda welcomes the adoption of the Codex Strategic Plan 2026–2031. Uganda will actively engage in commenting on the forthcoming monitoring framework and requests that:

- The framework integrates specific indicators for developing countries participation and capacity building outcomes.
- There is a mechanism for feedback from regional coordinating committees like CCAFRICA.

Reference: Para 13(i) Methods for Fish Sauce (Amino Acid Nitrogen)

Comment: Uganda notes the clarification regarding the use of amino acid nitrogen methods for fish sauce. While fish sauce is not widely produced in the region, the principle of accurate determination of fermentation markers is relevant to other fermented products (e.g., traditional fermented fish and milk). Uganda therefore supports the endorsement of appropriate methods (e.g., AOAC 978.02) and calls for broader recognition of similar testing approaches for traditional African fermented foods.

Agenda Item 2.1: Matters referred to the Committee by CCFA55

General Comment

Uganda appreciates the continued efforts of the Codex Committee on Food Additives (CCFA) and the Codex Committee on Methods of Analysis and Sampling (CCMAS) in aligning commodity standards with the Recommended Methods of Analysis and Sampling (CXS 234-1999). Uganda supports the systematic review and harmonization of methods to ensure food safety, consumer protection, and facilitation of fair-trade practices.

Specific Comments

1. Replacement of Sections 9.2 to 9.13 in the Standard for Food Grade Salt (CXS 150-1985)

Uganda supports the replacement of Sections 9.2 to 9.13 with a general reference to CXS 234-1999, aligning with the overarching Codex approach to consolidate and standardize analytical methods.

Rationale:

- Consolidation promotes consistency and avoids duplication across standards and as a good practice.
- Reference to CXS 234-1999 ensures that only internationally endorsed methods are cited, enhancing

regulatory clarity for enforcement and compliance monitoring which is also in alignment with the CAC 39 decisions on recognition of CXS 234-1999 as the sole reference for Methods of Analysis Sampling.

2. Inclusion of the Method for Determination of Sodium Chloride in CXS 234-1999

Uganda agrees with the CCFA55's proposal for CCMAS to include the method currently described in CXS 150-1985 for the determination of sodium chloride in CXS 234-1999.

Rationale:

- **Food Safety Relevance**: Accurate determination of sodium chloride content is critical not only for trade specifications but also for public health (e.g., managing dietary salt intake and enforcing iodization programs).
- **Continuity and Clarity**: Including the method ensures continuity in regulatory and laboratory practices, avoiding ambiguity where CXS 234-1999 currently refers back to CXS 150-1985.
- **Technical Feasibility**: The method currently in CXS 150-1985 is already widely used and feasible for laboratories in Uganda and other developing countries without requiring advanced analytical equipment.

Agenda item 3.1: Methods of analysis and sampling submitted by Codex subsidiary bodies

General Comment

Uganda welcomes the efforts by CCNFSDU and CCMAS in proposing harmonized, validated, and recognized methods for dietary fibre, infant formula, and follow-up formula analysis. Uganda supports the updating and endorsement of methods that ensure scientific rigor, transparency, and practicality.

Uganda underscores the importance of:

- Ensuring that methods are fit-for-purpose for both developing and developed country laboratories.
- Supporting methods that are critical to the safety and nutrition of vulnerable populations (infants, young children).
- Minimizing complexity and costs associated with laboratory analyses to foster effective regulatory monitoring across Africa.

Uganda stresses that while high-performance methods such as LC-MS and UHPLC-MS are accurate, Codex should continue to encourage practical alternatives and transitional approaches for countries with limited access to such advanced technologies.

Specific Comments

1. **Methods of Analysis for Dietary Fibre (CXG 23-1997)**

Comment: Uganda supports the endorsement of AOAC 2022.01/ICC 191/AACC 32-61.01 as a Type I method for measuring dietary fibre, as proposed.

Rationale:

- The method covers a comprehensive range of soluble and insoluble fibres, supporting public health claims on food products.
- The inclusion of a footnote clarifying the exclusion of non-compliant fibres (isolated/purified/synthetic) is critical to uphold the Codex definition of dietary fibre.

Additional Comment: Uganda urges Codex Alimentarius Commission through its subsidiary bodies CCNSFDU and CCMAS to provide clear guidance on how countries can implement the subtraction of isolated fibres to avoid inconsistencies in regulatory application.

2. Endorsement of Methods for Follow-up Formula (CXS 156-1987) and Infant Formula (CXS 72-1981)

Comment: Uganda supports the endorsement of the updated methods (Appendix I, Part A.2) for vitamins, minerals, and other nutrients, with the following considerations:

- **Support for Endorsement:** Uganda agrees with endorsing modern methods (e.g., LC-MS/MS, UHPLC) as Type II, recognizing their scientific robustness.

Caution for Implementation: Uganda encourages Codex to recognize that many national laboratories, may not yet be equipped with LC-MS/MS systems. Therefore, Codex should**:**

a) Maintain Type III methods where no significant disadvantage to public health exists, to allow countries flexibility during capacity development.

b) Facilitate transition guidelines to newer methods, including interim measures or regional capacity building.

3. Measurement of Crude Protein in Follow-up Formula

Comment: Uganda supports the endorsement of ISO 8968-1 | IDF 20-1 (Kjeldahl titrimetric) as a Type I method for the determination of crude protein.

Rationale:

- Kjeldahl is a well-established, reliable, and accessible method for protein analysis, suitable for many national laboratories, including those in Uganda.
- The conversion factor of N x 6.25 aligns with general protein calculation practices, ensuring consistency across food categories.

4. Revocation or Retyping of Older Methods

Comment: Uganda supports the proposed revocation/retyping of outdated methods listed in Appendix I, Part B, with the following caution:

- Uganda urges Codex to consider whether the withdrawal of older methods (e.g., AOAC 974.29, AOAC 992.24) may adversely impact countries that still use them due to technological or financial constraints.
- Uganda recommends that Codex allow a reasonable transition period for such revocations, with clear guidance on alternative methods and their comparability.

Agenda item 3.2: Endorsement of methods of analysis and sampling plans for provisions in Codex standards - Other relevant matters arising from the amendment of CXS 234-1999

General Comment

Uganda appreciates the diligent efforts of the Codex Secretariat in updating and harmonizing CXS 234-1999 to ensure that all Codex commodity standards refer to a single consolidated source of methods of analysis. Uganda strongly supports this approach as it promotes consistency, transparency, and strengthens national food control systems.

Uganda emphasizes that methods included or retained in CXS 234-1999 should remain fit-for-purpose, scientifically validated, and practical for use across a wide range of laboratory settings, including those in developing countries. Uganda further stresses that clear numeric performance criteria, where appropriate, are critical to ensure reliability, comparability, and regulatory certainty.

Specific Comments

1. Review of Methods without Principle and Typing (Appendix I – Part 1)

Uganda agrees with the need to review methods where principle and typing were not indicated during their transfer into CXS 234-1999.

Uganda proposes that:

- Each method must be assessed carefully for continued fitness for purpose based on current scientific and technological advancements.
- If a method remains fit-for-purpose, Uganda supports assigning the appropriate principle and typing to allow its formal transfer.
- If a method is outdated, lacks validation, or is impractical for routine use, Uganda supports its revocation to maintain the integrity of CXS 234-1999.

Uganda requests that methods used in critical commodities (e.g., infant foods, dairy, fish) be prioritized for thorough validation assessment to ensure consumer protection.

2. Methods by Description – Decision on Presentation (Appendix I – Part 2)

Uganda notes the two options proposed for addressing descriptive methods now supported by specific published references.

Uganda supports an approach that:

- References validated, published methods wherever possible rather than retaining purely descriptive texts.
- Ensures clarity, traceability, and facilitates harmonized application in regulatory laboratories.

Uganda encourages Codex to adopt a standardized approach to handle similar cases in the future to avoid inconsistencies.

3. Extension of Numeric Performance Criteria to Other Fish Products (Paragraph 5)

Uganda supports the proposal to extend the use of numeric performance criteria for determining sodium chloride and salt determined as chloride (expressed as sodium chloride) to additional products, including:

- Salted Atlantic herring,
- Salted sprat,
- Salted fish and dried salted fish of the Gadidae family,
- Sturgeon caviar.

Rationale

Numeric criteria provide flexibility, enabling laboratories to select appropriate methods that meet validated performance parameters. This approach reduces reliance on outdated, specific methods and accommodates innovation and improvements in analytical technologies.

Uganda further highlights the importance of maintaining practical and achievable numeric criteria considering the realities of food safety laboratories in developing countries.

4. Editorial and Consequential Amendments (Appendices II and III)

Uganda notes and agrees with the editorial and consequential amendments made to CXS 234-1999, as outlined in Appendices II and III.

Uganda concurs that these changes:

- Do not impact the technical content or interpretation of the methods or criteria.
- Improve clarity and internal consistency of the document, which is crucial for its effective application in regulatory frameworks.

Uganda encourages Codex to maintain meticulous records of such changes to ensure transparency and facilitate training and capacity building in Member States.

Agenda item 4.1: Methods of analysis for protein in quinoa (Comments in reply to CL 2024/91–MAS)

General Comment

Uganda supports the reconsideration of the typing of ISO 1871 for the determination of protein in quinoa, conditional upon the provision of additional information regarding catalysts, reagent specifications, and operational conditions. Uganda emphasizes that the method must demonstrate reproducibility, accuracy, and practicality across diverse laboratory environments, including developing countries. Uganda recommends that if retyped, clear standardized protocols should accompany the method to ensure consistent global application and urges Codex to consider the future development of alternative validated methods suitable for quinoa and other pseudocereals.

Agenda item 4.2: Determination of moisture content in whey powder

General Comment: Uganda supports the endorsement of the 102 °C method as Type IV for whey powders

Rationale: The data provided supports endorsement of the 102 °C method as Type IV for whey powders.

Agenda item 5.1: Fruit juices workable package

General Comment: Uganda appreciates the efforts of the Codex Committee on Methods of Analysis and Sampling (CCMAS) and the chair of the Electronic Working Group (EWG), Germany, for their continued work on reviewing and updating the methods in CXS 234-1999, especially regarding the consistency and applicability of the methods for fruit juices and nectars.

Uganda recognizes the need to update the methods, remove inconsistencies, and ensure that they are fit for purpose considering advances in analytical technology and evolving industry standards. Uganda also acknowledges the challenges arising from the disbandment of the relevant technical committees at CEN, particularly regarding the methods for determining the stable hydrogen and oxygen isotope ratios of water (ENV 12142 and ENV 12141).

Uganda's Position on Proposed Changes

1. Endorsement of Proposed Changes (Appendix I): Uganda supports the proposed changes to CXS 234-1999 as outlined in Appendix I of the working document, as these align with international best practices. Uganda believes these revisions will enhance the clarity, consistency, and applicability of the methods, particularly in ensuring that fruit juice standards are up to date with current industry practices and scientific understanding.

2. Items for Further Consideration (Appendix II): Regarding the methods ENV 12142 and ENV 12141 for determining the stable hydrogen and oxygen isotope ratios of water, Uganda suggests that the deletion of these provisions should be postponed until IFU's updated methods based on the CEN standards are published. These methods are critical for determining the quality and authenticity of fruit juices, and until suitable alternatives are available, Uganda recommend holding off on any deletions. If necessary, Uganda supports the endorsement of new methods through the established process once they are available.

3. Similarly, for the method IFU 42 (1976) for determining the carbon dioxide content, Uganda recommends that a decision on its deletion or endorsement of new methods should be made once the IFU has provided further clarification on the status of this method. If this method is no longer available, Uganda encourages the endorsement of a suitable alternative method through the usual process.

Agenda item 5.2: Cocoa Products and Chocolate Workable Package

General Comment: Uganda recognizes the importance of the ongoing review of methods of analysis for cocoa and chocolate products under CXS 234-1999. Uganda supports and endorses the proposed amendments in Appendix I and applauds the efforts to refine and update the methods of analysis to ensure they meet the standards of food safety, quality, and consumer protection.

Specifically, on

1. **Moisture Determination Methods:** Uganda agrees with the retention of moisture determination by loss on drying as a Type I method and the inclusion of Karl Fischer titration as a Type II method. This dual approach provides flexibility for laboratories to select the most suitable method based on available resources, ensuring reliable and consistent moisture content determination, which is crucial for product stability and shelf life. However, in the appendix during typing of methods it has been erroneously indicated as type IV.

2. **Provisions for Cocoa Butter Equivalents and Fat Analysis:** Uganda supports the inclusion of provisions for the analysis of cocoa butter equivalents (CBE) in plain and milk chocolate, as outlined in Appendix II. The ability to accurately quantify CBEs is vital for ensuring food safety, proper labelling, and meeting consumer expectations. Given the global increase in the use of non-cocoa butter fats.

Agenda item 6.1: Information document: *General guidelines on sampling* (CXG 50-2004) - e-book with sampling plans applications

General Comment:

Uganda appreciates the continued efforts by CCMAS to develop and publish an information document on the general guidelines on sampling and in form of an E-BOOK with sampling plans and applications. Further, Uganda appreciates the work done by the EWG chaired by New Zealand and co-chaired by Germany.

Rationale: The development of an information document on general guidelines on sampling will provide practical examples of sampling plans and information to support the design of sampling plans for isolated lots and sampling plan apps for internal use by the Committee or for public consultation.

Specific Comment

Uganda agrees with the EWG's recommendations that CCMAS endorses the publication of the information document on the CCMAS webpage. Additionally, Uganda takes note that as other Apps are developed, they will be forwarded for CCMAS' consideration for inclusion to the list of Apps in the information document; and that other supporting resources e.g. webinars will be made available on the CCMAS webpage.

Rationale: Information documents are published on the CCMAS webpage and can be considered as living documents subject to revisions when necessary and therefore further updates to information documents, e.g. inclusion of other apps, could be made in future if required

Agenda item 6.2: Review of sampling plans in CXS 234

Comment: The review of sampling plan information in CXS 234-1999, as outlined in the discussion paper, is a timely and important step toward harmonizing Codex standards and ensuring that the sampling procedures used across food commodities are both scientifically valid and fit-for-purpose. Uganda particularly welcomes the proposal to:

- Develop more inclusive and standardized formats for presenting sampling plan information,
- Explore options for addressing bulk and heterogeneous materials, such as those affected by mycotoxins; and
- consider Bayesian approaches as innovative tools to improve decision-making under uncertainty.

Rationale: This will provide more clarity and applicability.

Agenda item 7: Numeric performance criteria for the determination of nitrate and nitrite ions in food matrices

General Comment

Uganda appreciates the comprehensive work undertaken by the Electronic Working Group (EWG) co-chaired by Australia and the United States in developing numeric performance criteria and reviewing methods for the determination of nitrate and nitrite ions in various food matrices. Uganda supports efforts to improve the accuracy, sensitivity, and harmonization of methods related to food additives and contaminants, given the critical importance of protecting consumer health and ensuring fair practices in food trade.

Specific Comments

1. Endorsement of Numeric Performance Criteria

Uganda supports the adoption of the proposed numeric performance criteria for nitrate and nitrite detection as outlined in Appendix 1 (for adopted maximum levels) and Appendix 2 (for lowest proposed residual levels).

Rationale:

- Defining clear numeric criteria enhances transparency, consistency, and objectivity in method validation and regulatory enforcement.
- It enables food control authorities, including in Uganda, to better monitor compliance with Maximum Levels (MLs) for nitrates and nitrites in important commodities such as cheese, meat, and seafood.

2. Selection and Endorsement of Suitable Analytical Methods

Uganda supports the recommendation to prioritize methods that:

- Provide **separate quantification** of nitrate and nitrite ions wherever possible, to enhance analytical accuracy and risk assessment.
- Are **collaboratively validated** (multi-laboratory validation preferred) over single laboratory validated methods, ensuring greater robustness and reproducibility across regions.

Uganda notes the concern that for some specific commodities (e.g., fish roe products), no currently available methods fully meet the stringent LOD/LOQ requirements. In such cases, Uganda supports:

- Continued efforts to **source, validate, or develop** applicable methods.
- Consideration of **interim approaches** using the best available methods while more sensitive and specific techniques are developed.

3. Accessibility of Analytical Methods

Uganda notes that while advanced methods such as **2D-IC**, **HPLC**, and **Ion Chromatography** provide high sensitivity, Codex should also:

- Encourage **practical alternatives** such as **flow injection analysis (FIA)** and **automated Griess reaction** methods, particularly for use in routine food control laboratories with limited resources.

4. Matrix-Specific Validation and Method Robustness

Uganda concurs with the report's findings that:

- **Matrix-specific factors** (e.g., fat, protein, pH) can significantly influence method performance for nitrate/nitrite detection.
- **Sample preparation** and **matrix clean-up** protocols must be well defined to avoid interferences and ensure reliability.

Uganda encourages CCMAS to provide additional practical guidance on **matrix preparation and mitigation of interferences** as part of method endorsement, particularly for complex food matrices like cheese and processed meats.

5. Future Work and EWG Continuation

Uganda supports:

- Continuing efforts to **fill method gaps** identified for specific matrices and low detection limits.
- Further supplementation of validation data where needed.

- Possibly re-establishing the EWG if necessary, to continue method development and ensure comprehensive, scientifically sound coverage across all relevant food commodities

Agenda item 8: Methods of analysis for precautionary allergen labelling

General Comment

Uganda appreciates the work of the Electronic Working Group (EWG), chaired by the United States and co-chaired by the United Kingdom, in compiling, assessing, and presenting validated analytical methods for the detection and quantification of unintended allergen presence (UAP) in food. Uganda supports the development of robust, validated methods aligned with international standards (AOAC Appendix M and EN guidelines) to enhance precautionary allergen labelling and protect allergic consumers.

Specific Comments

1. Recognition of AOAC and EN Method Performance Standards

Uganda supports informing CCFL about the recent publication of AOAC Appendix M and the relevant EN standards (e.g., EN 17855 for ELISA, EN 17644 for LC-MS, EN 17254 for gluten detection by ELISA, and EN 15634 for PCR).

Rationale:

- These guidelines establish rigorous, internationally recognized validation and performance benchmarks, enhancing the reliability and comparability of allergen testing methods globally.
- Adopting such benchmarks will support consistent risk assessments and precautionary labelling practices.

2. Evaluation of Submitted Methods

Uganda agrees with the need for careful review of the methods submitted, and supports prioritizing:

- Methods validated through collaborative studies or performance-tested following recognized protocols.
- Methods utilizing incurred spiking (allergen added prior to processing), as these more accurately simulate real-world conditions and processing effects.

Uganda acknowledges that some methods were validated under older schemes but stresses that they should still be considered, provided they meet core performance parameters (e.g., appropriate LOD, LOQ, repeatability, and recovery rates).

3. Practical Applicability in Developing Countries

Uganda stresses that endorsed methods should include a balance between:

- Highly sensitive confirmatory methods (e.g., LC-MS/MS) suitable for reference and enforcement purposes; and
- Cost-effective, accessible screening methods (e.g., ELISA) that can be practically applied by food businesses and regulatory laboratories in developing countries.

This dual approach will ensure that all countries, regardless of technical capacity, can effectively implement precautionary allergen management in food safety systems.

4. Future Methods and Dynamic Updates

Uganda supports the position that the list of allergen detection methods should remain **open and dynamic**, allowing future methods meeting performance standards to be accepted without requiring new full committee endorsement for Uganda.

Recommendation: Codex could consider developing an ongoing validation monitoring mechanism or periodic updates to incorporate new methods, ensuring flexibility and responsiveness to scientific advancements.

5. Re-Establishment of the EWG

Comment: Uganda supports the recommendation to re-establish the EWG to complete the detailed review of the extensive validation data submitted and to develop a comprehensive response to CCFL49.

Rationale:

- Given the volume and complexity of data, a careful, methodical review is necessary to ensure the scientific integrity and regulatory applicability of the endorsed methods.
- The continued work of the EWG will also allow the inclusion of additional emerging methods, particularly for

allergens like pecan and pistachio, for which no data were yet submitted.

Uganda requests that the EWG maintain broad representation, including participation from developing countries, to ensure that the perspectives of diverse regulatory environments are considered.

Agenda item 9: Harmonization of names and format for principles identified in CXS 234

General Comment

Uganda commends the Electronic Working Group (EWG) led by Brazil and Chile for its extensive work on the harmonization of names, principles, and provisions in the Recommended Methods of Analysis and Sampling (CXS 234-1999). Uganda supports efforts aimed at enhancing clarity, consistency, and usability of Codex texts, which are vital for strengthening national food control systems, facilitating compliance with international standards, and promoting fair trade.

Uganda emphasizes that the harmonization process must balance technical precision with practical application to ensure that developing countries, including Uganda, can effectively adopt and implement the updated Codex texts without unnecessary complexity or disruption to existing regulatory frameworks.

Specific Comments

1. Harmonization of Principles and Method Descriptions

Uganda supports the proposed approach to harmonize the naming and formatting of analytical principles, ensuring that only the technique critical to the determination of the test result is reflected.

Rationale:

- This will avoid confusion caused by inconsistent or overly detailed principle names across standards.
- It enhances the usability of CXS 234-1999 for competent authorities, laboratories, and industry stakeholders in Uganda.

However, Uganda underscores the importance of retaining key information about **critical preparatory steps** (e.g., sample preparation, extraction) within the body of the method description even if not highlighted in the principle's title, to avoid misinterpretation or incomplete application of methods.

2. Harmonization of Provision Names

Uganda supports the effort to harmonize provision names (Annex D), noting that the proposed changes enhance consistency across different Codex commodity standards and CXS 234-1999.

Rationale:

- Consistent naming of provisions such as "Acidity," "Chloride (expressed as NaCl)," and "Fat" will facilitate laboratory database development, method selection, and food control system integration.
- This harmonization will aid in digitalization efforts and improve information retrieval, which is essential for modern food safety management systems.

Uganda cautions, however, that in cases where commodity-specific distinctions have public health relevance (e.g., nutrients in infant formula versus general foods), these distinctions must be clearly maintained within the detailed standard or method reference.

3. Use of Abbreviations and Acronyms

Uganda supports the proposed use of standardized acronyms and abbreviations for analytical techniques (Annex B) and reference standards (Annex C), to facilitate ease of communication and database interoperability.

Rationale:

- Standardized abbreviations improve clarity and minimize ambiguity, which is crucial for regulatory enforcement, training, and international reporting.
- This is particularly beneficial for multilingual contexts, where clear abbreviations aid in translations and training materials.

Uganda suggests that Codex develop a **glossary or guidance note** explaining these acronyms for broader accessibility, especially for newer entrants to Codex-related laboratory work.

4. Implementation Considerations for Developing Countries

Uganda stresses that:

- Adequate **transition periods** should be provided before full implementation of the revised CXS 234-1999 to allow time for training, updating laboratory methods, and system adjustments.

- Capacity-building initiatives, including workshops or technical guidance from Codex or FAO/WHO, would be valuable to support the effective rollout of the harmonized document.