

CODEX COMMITTEE ON METHODS OF ANALYSIS AND SAMPLING
42nd Session
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European Union Comments on

Agenda Item 4.2:

Review of methods in CXS 234 - 1999: Cereals, pulses and legumes workable package
(CX/MAS 23/42/5 and CL 2023/13/OCS-MAS)

Mixed Competence
Member States Vote

The European Union and its Member States (EUMS) congratulate the Electronic Working Group (EWG) led by Canada for their immense efforts related to the review of methods related to cereals, pulses and legumes listed in CXS234-1999. The EUMS also wish to commend the support of relevant Standard Development Organisations (AACCI, now known as C&G, AOAC, ICC and ISO).

The EUMS agree in principle with the proposed amendments listed in Appendix I, in particular the proposed shift of N-to-protein conversion factors to the relevant commodity standards. Furthermore, the EUMS agrees to setup a WG to continue the work for methods listed in Appendix II and III.

The EUMS propose to consider the following points in the discussions of the Physical Working Group:

- Most of the moisture methods needed for proximate analysis of commodities have the relevant commodity in their scope, viz. ISO 24557 / AACC 44-17.01, ICC 110/1 , ISO 712, ISO 6540. AOAC 925.09 (vacuum drying), which can be regarded as a 'horizontal' method, is listed for commodities which are not included in the scope of the above mentioned standards. Listing moisture methods in CXS 234-1999 has the advantage of guiding analysts to the appropriate moisture methods for proximate analysis. Therefore, the EUMS do not favour the removal of the listed moisture methods for the cereals, pulses and legumes workable package. However, for those commodities that are not covered by the scope of the currently listed moisture methods, the concerned method, mostly AOAC 925.09, could be removed and the proposed footnote added to guide users.
- For the provision 'Ash' in all commodities AOAC 923.03 / ISO 2171 was endorsed. AOAC 923.03 requires the use of a muffle furnace at 550 °C while ISO 2171 gives the analyst the option to incinerate the sample either at 900 °C in platinum dishes or at 550 °C in quartz or silica dishes. Therefore, the comment made by the EWG, questioning the use of expensive platinum dishes on grounds of applicability, availability and cost of methods, seems to be unfounded as both methods allow the use of widely available quartz or silica dishes. Furthermore, the EUMS notice that the principle of the 'ash' methods in the cereals, pulses and legumes workable package is described as 'incineration', which is the term used by the ISO 2171 standard as well. However,

the Dairy package uses the term 'ashing' together with the specified temperature. Therefore, the EUMS recommend to agree on a harmonised terminology to describe the method principle for the provision 'Ash' throughout CXS 234-1999 (e.g., 'Ash', 'incineration at xxx °C).

Editorial suggestions:

- The Dairy package mentions the drying temperature for moisture methods; for consistency this approach should be applied for the cereals, pulses and legumes workable package as well (e.g., 'Gravimetry ([oven] drying at xxx °C or vacuum [oven] drying at xxx °C).
- For 'Peanuts (raw)' the EWG suggests to change the provision 'Aflatoxins, total' to 'Aflatoxins, total as sum of aflatoxins B1, B2, G1 and G2); but for 'Peanuts' the provision 'sum of aflatoxins B1, B2, G1 and G2' remains unchanged. It is recommended to align the language.
- For the provision 'Fibre, crude' the method principle is sometimes described as 'Gravimetry (extraction and filtration)' for Perl millet flour, but also as 'Gravimetry (separation, incineration)', Sorghum flour, 'Gravimetry (Ceramic filter filtration)' for Soy protein products, 'ceramic fibre filtration' for Wheat protein products including wheat gluten, 'Gravimetry (separation)' for Gari, and 'Gravimetry (incineration)' for Edible Cassava flour, which is confusing. Even if the applied methods differ in detail how the non-fibre part is removed, the determination of crude fibre rests on the gravimetric determination of the insoluble residue after drying and the gravimetric determination of the ash content of the insoluble residue. Therefore, the EUMS suggest to use 'Gravimetry (oven drying and incineration)' as method principle for all crude fibre methods in the cereals, pulses and legumes workable package.