**Codex Committee on Methods of Analysis and Sampling**

**(34th Session)**

**Budapest, Hungary (4-8 March 2013)**

**FINAL**

**European Union comments on the**

**Matters Referred to the Committee by the CAC and other Codex Committees**

**(Agenda item 2, CX/MAS 13/34/2)**

***Mixed Competence***

***European Union Vote***

The European Union and its Member States (EUMS) would like to submit the following comments on the various issues under discussion.

**CCCF – Maximum Levels for Arsenic in Rice**

As regards the request made by CCCF to CCMAS (para.8) to identify suitable methods of analysis for the determination of inorganic arsenic in rice, the EUMS would like to note that in "EN 15517 2008: Foodstuffs. Determination of trace elements, determination of inorganic arsenic in seaweed by hydride generation atomic absorption spectrometry (HGAAS) after acid extraction" has been published. Satisfactory precision values were obtained on inorganic arsenic acidic extracts down to 0.08 mg/kg (HorRat value 1.6 in the validating collaborative trial). However, this CEN method has been validated only for seaweed and the scope is restricted to this substrate.

In "EN 15763 2009: Foodstuffs. Determination of trace elements, determination of arsenic, cadmium, mercury and lead in foodstuffs by inductively coupled plasma mass spectrometry (ICPMS) after pressure digestion" has been published. Satisfactory precision values were obtained on arsenic in food samples down to 0.07 mg/kg (HorRat value 1.8 in the validating collaborative trial).

The Joint Research Centre (JRC) of the European Commission organised a series of proficiency tests related to inorganic arsenic in a number of commodities, among them rice. A wide range of sample pre-treatment methods (extraction into water, acid extraction with different acids, basic extraction, enzymatic digestion, etc), and instrumental set-ups (HG-AAS, HPLC-ICP-MS, ETAAS) have been applied by participants and by the expert laboratories that provided the assigned value for inorganic arsenic. Despite that, no clustering of results related to the analytical approach was observed, proving that the determination of inorganic arsenic in rice is not method-dependent.

Furthermore, a rice based reference material certified for the mass fraction of the sum of arsenite and arsenate is also available from JRC, which could be used for method validation. Various techniques were used for value assignment and the technically accepted data sets for arsenite/arsenate agreed well, irrespective of the techniques used.

Heavy metals in feed and food

<http://irmm.jrc.ec.europa.eu/EURLs/EURL_heavy_metals/interlaboratory_comparisons/imep-107/Documents/eur24314en.pdf>

Total arsenic, cadmium, lead and mercury

<http://irmm.jrc.ec.europa.eu/interlaboratory_comparisons/imep/imep-30/Documents/EUR24604EN_IMEP-30%20participants%20report.pdf>

Total inorganic arsenic in wheat, vegetable food and algae

<http://irmm.jrc.ec.europa.eu/EURLs/EURL_heavy_metals/interlaboratory_comparisons/Documents/EUR%2024937%20EN%20-%20IMEP%20112%20corrected.pdf>

inorganic arsenic in animal feed

<http://irmm.jrc.ec.europa.eu/interlaboratory_comparisons/imep/Documents/EUR%2024938%20-%20Report%20iAs%20CT.pdf>

**CCFFP – Performance Criteria and Confirmatory Methods for Marine Biotoxins in the Standard for Live and Raw Bivalve Molluscs**

Concerning the request made by CCFFP to CCMAS (para.9) to clarify whether methods should meet both LOD and LOQ or either of the two, the EUMS fully agree with the development of such criteria and methods and believe that methods should meet both LOD and LOQ. However, the EUMS recognise that there might be some inconsistencies between the calculations of LOD and LOQ as given in Guideline 72[[1]](#footnote-1) and the Procedural Manual Guidelines for establishing numeric values for method criteria and/or assessing methods for compliance thereof (page 68 of the twentieth edition od the Procedural Manual).

**CCNFSDU – Methods of Analysis for trans fatty acids**

As regards the request made by CCNFSDU to CCMAS (para.13) to review the applicability of the methods of analysis for trans fatty acids currently defined in the Guidelines on Nutrition Labelling, the EUMS fully support this review.

The EUMS would like to note that the article "Inconsistencies in a High Polar Capillary Gas Chromatography Column and Necessity to Column Performance Checks for *trans* fatty Acid Measurement" was published in Tsuzuki: Journal of AOAC International Vol. 95, No.6, 2012.

1. Guidelines on Analytical Terminology (CAC/GL 72-2009) [↑](#footnote-ref-1)