

# CODEX ALIMENTARIUS COMMISSION



Food and Agriculture  
Organization of the  
United Nations



World Health  
Organization

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Agenda Items 5, 6, 7, 10, 11, 13, 14,15,17,19a

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## JOINT FAO/WHO FOOD STANDARDS PROGRAMME

### CODEX COMMITTEE ON CONTAMINANTS IN FOODS

13<sup>th</sup> Session

Yogyakarta, Indonesia, 29 April – 3 May 2019

#### Comments of Ghana

#### **AGENDA ITEM 5 - PROPOSED DRAFT MAXIMUM LEVELS FOR LEAD IN SELECTED COMMODITIES IN THE GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD AND FEED**

**POSITION:** Ghana supports the lowering of maximum levels for lead in wines and edible offal from cattle, pig and poultry.

**RATIONALE:** Available data indicate that levels of lead in wines are far below 0.05mg/L. Lowering the levels would protect the health of consumers without affecting trade.

The maximum levels for edible offal were proposed without data from Ghana but considering the significant import of edible offal to Africa and the need to promote public health and facilitate international trade, we support the proposed limits.

#### **AGENDA ITEM 6 - PROPOSED DRAFT MAXIMUM LEVELS FOR CADMIUM IN CHOCOLATE AND COCOA-DERIVED PRODUCTS**

**POSITION:** Ghana supports the setting of MLs for cadmium in chocolate and cocoa-derived products, we however do not support the levels proposed in appendix 1.

**RATIONALE:** The levels are too high and could affect the safety of consumers. There is the need to call for more data from Africa to support the setting of the MLs.

#### **AGENDA ITEM 7- PROPOSED DRAFT CODE OF PRACTICE FOR THE REDUCTION OF 3-MONOCHLOROPROPANE-1,2- DIOL ESTERS (3-MCPDE) AND GLYCIDYL ESTERS (GE) IN REFINED OILS AND FOOD PRODUCTS MADE WITH REFINED OILS**

**POSITION:** Ghana supports the adoption of the Code of Practice.

**RATIONALE:** Both 3-Monochloropropane-1,2- Diol Esters (3-MCPDE) and Glycidyl Esters (GE) are contaminants produced during oil refining and have toxic effects on kidney and male reproductive organs, whereas their non-esterified forms are carcinogenic.

The draft code has been modified to include all refined oils (including fish oil) and not only vegetable oils. Further changes were made based on technical submissions and in addition, some editorial changes were introduced. The COP is relevant to Ghana and African refiners and should be adopted.

#### **AGENDA ITEM 10 - DRAFT GUIDELINES FOR RISK ANALYSIS OF INSTANCES OF CONTAMINANTS IN FOOD WHERE THERE IS NO REGULATORY LEVEL OR RISK MANAGEMENT FRAMEWORK ESTABLISHED**

**POSITION:** Ghana supports the establishment of the Guidelines for risk analysis of chemicals inadvertently present in food at low levels and for which no regulatory or risk management framework is established.

**RATIONALE:** The draft guidelines have been extensively clarified and improved and the current document is readily understandable. The Decision Tree is also easy to follow and all reference to the confusing term “emerging” has been removed and the chemicals to which the guidelines apply are clearly delineated, as are those excluded. The derivation of the “cut-off value” at 1 µg/kg is also clearly explained and justified by example.

The new document clarifies the scope of the guidelines in that they apply to unregulated contaminants for which no Codex or national standards exist and are aimed at providing risk assessors and risk managers with guidance on ensuring the safety, while minimizing disruption or wastage, of the food supply. They apply in situations where a rapid risk assessment is required and little or no toxicological data or a health-based

guidance value is available. The guidelines rely on the Threshold of Toxicological Concern (TTC) approach with a derived “cut-off value”, which is a contamination level below which no adverse health concern is generally recognized.

#### **AGENDA ITEM 11 - DISCUSSION PAPER ON THE ESTABLISHMENT OF NEW MAXIMUM LEVELS FOR LEAD IN COMMODITIES ACCORDING TO A PRIORITIZATION APPROACH**

**POSITION 1:** Ghana agrees with the prioritization criteria used. The criteria are based on significance of food commodity in dietary exposure to lead, health impact, contribution to international trade and vulnerability of levels of lead found in food to infants and children, the most sensitive sub population.

**RATIONALE:** The prioritization criteria are in accordance with the principles established in Policy of the Committee on Contaminants in Foods for Exposure Assessment of Contaminants and Toxins in Foods or Food Groups (Codex Alimentarius Commission Procedural Manual) (hereafter referred to as the “policy of CCCF to prioritize by food category and JECFA information (e.g. hazard endpoint, consumption data for children) and setting of MLs.

**POSITION 2:** We also support the prioritization list of foods because they contribute mostly to dietary exposure to lead, health impact and international trade.

**RATIONALE:** Based on the impact of exposure of lead and international trade impact, the following food categories were identified, in descending order of % hazard endpoint, to work on new MLs for lead:

- a. Spices and aromatic herbs
- b. Eggs and eggs products
- c. Cereal flours and starch
- d. Sugars and confectionary, excluding cocoa
- e. Seafood
- f. Teas and herbal teas
- g. Cocoa and cocoa products
- h. Processed fish excluding frozen and sliced

Since infants and children are most sensitive to the toxic effects of lead with regards to neurodevelopmental effects, foods for this subpopulation are considered critical for setting MLs for lead. They include Cereal-based food for infants and young children, food for infant or children NES, fruit juice and herbal tea for infants and young children, ready-to-eat meal for infants and young children, yoghurt, cheese and milk-based dessert for infants and young children

**POSITION 3:** Ghana supports the commencement of new work to set MLs for lead in the priority food categories considering the available data in the GEMS/Food database.

**RATIONALE:** The data available in the GEMS/Food was sufficient for the EWG to propose the following hypothetical MLs for lead in the prioritized food categories as they affect dietary intake levels, intake reduction and sample rejection from international trade. The MLs proposed are protective of health and trade however, the lack of data from Africa in the formulation of these hypothetical MLs is an urgent call for the continent to generate and submit same by next year

- i. Spices and aromatic herbs - 0.7 mg/kg (rejection of less than 5%)
- j. Eggs and eggs products - 0.7 mg/kg (rejection of less than 5%)
- k. Cereal flour and starch - 0.06 mg/kg (rejection of less than 5% \*)
- l. Sugars and confectionary - 0.05 mg/kg
- m. Seafood - 0.4 mg/kg or 0.3 mg/kg excluding molluscs
- n. Teas and Herbal teas - 2. 0 mg/kg\*
- o. Cocoa and cocoa products – 0.5 mg/kg
- p. Processed fish excluding frozen and sliced – 0.1 mg/kg reduction of 48.5% intake and 5.1% rejection)
- q. Foods for infants and children:
  - i. Cereal based foods - 0.05 mg/kg
  - ii. Fruit juice and herbal tea - 0.02 mg/kg
  - iii. Yoghurt, cheese and milk based dessert - 0.03 mg/kg
  - iv. Ready to eat meal - 0.03 mg/kg

**POSITION 4:** Ghana agrees to a call for data for food categories identified as priorities.

**RATIONALE:** If MLs are eventually established without data from Africa such limits might not be achievable in the Continent and will obviously have adverse impact on export trade of the region. It is pertinent to state that no data from Africa was used in this work.

**POSITION 5:** Ghana supports the recommendation of the EWG for member countries to identify and ensure inclusion on the list, other food categories that, are not listed in the priority list but satisfy the prioritization criteria especially those highly consumed by children.

**RATIONALE:** There are commodities that meet the criteria for adoption for establishment of MLs for lead that are not on the list. For example, cassava is a staple for more than one billion people worldwide (FAOSTAT, 2011) especially in Africa, Asia and South America. FAOSTAT estimates that 34.1% (87,059, 000 tons) of world cassava production of 2013 was used for feed production and 67130 tons of cassava valued at 39 billion USD was exported to various countries for livestock product trade in 2012. About 15.1% and 14.1% of the 277,102,564 tons of world cassava produced in 2016 was involved in import and export trade respectively. The increasing use of the tuber as both food crop and industrial raw material qualifies it for inclusion in the prioritized food categories. Cassava and other crops that could meet the prioritization criteria and are of interest to Ghana should be identified and considered for establishment of ML for lead for improving public health and trade.

**POSITION 6:** Ghana agrees with the approach to consider individual countries' consumption data for food categories that have high occurrence levels or significant international trade impact (e.g. algae and seaweed, non-alcoholic beverages) and do not have consumption data in the GEMS/Food Cluster Diets database.

**RATIONALE:** Excluding food categories with high occurrence data or significance in international trade and will have high consumption rate as might eventually be revealed has adverse public health and economic implications.

#### **AGENDA ITEM 13 - DISCUSSION PAPER ON THE REVISION OF THE CODE OF PRACTICE FOR THE PREVENTION AND REDUCTION OF LEAD CONTAMINATION IN FOODS**

**POSITION:** Ghana supports revisions to the *Code of Practice for the Prevention and Reduction of Lead Contamination* (CXC 56-2004) and therefore agrees that the project document for the revisions to CXC 62-2006 be submitted to CCCF 13 for approval and an EWG be established to prepare a proposed revised COP for comments at CCCF 14

**RATIONALE:** The current document has provided enough additional information available on lead sources and mitigation strategies to justify the revision of the 15 years old COP. More so the revisions proposed are achievable in Ghana.

#### **AGENDA ITEM 14 - DISCUSSION PAPER ON THE DEVELOPMENT OF A CODE OF PRACTICE FOR THE PREVENTION AND REDUCTION OF CADMIUM CONTAMINATION IN COCOA**

**POSITION:** Ghana supports the development of a Code of Practice for the prevention and reduction of cadmium contamination in cocoa.

**RATIONALE:** Cocoa is a valuable commercial crop that contributes to the economies of several developing countries including Ghana. This Code of Practice would provide technical guidance to member countries and the cocoa production industry on the prevention and reduction of cadmium contamination in cocoa beans during production and post-harvest processing.

#### **AGENDA ITEM 15 - DISCUSSION PAPER ON THE ESTABLISHMENT OF MAXIMUM LEVELS FOR METHYLMERCURY IN ADDITIONAL FISH SPECIES**

**POSITION 1:** Ghana supports the proposed list for setting of MLs as recommended in the table below, but recommends deferment of the timeframe for setting of MLs by two years.

<b>Grouping (identified species)</b>	<b>Timeframe for ML derivation</b>
Snake mackerel (Escolar)	2019-2020
Toothfish (Patagonian toothfish)	
Ling (Cusk, Blue ling)	
Cusk-eel (Pink Cusk-eel, Kingklip)	
Sablefish	

Anglerfish Barracuda Catfish (Channel catfish) Orange roughy Cutlassfish (Scabbardfish) Snapper (Russell's snapper, unspecified)	2020-2021
Cardinalfish Hapuku Short nosed chimera (Rat fish)	2021-2022

**RATIONALE:** Although the identified fish species are appropriate candidates for MLs setting, the EWG (established by CCCF12 and chaired by New Zealand and co-chaired by Canada) advised that consideration of MLs for these species is contingent on submission of further data on total mercury and methylmercury concentrations into GEMS/Food. This is important because the EWG identified no species of fish for which there was enough confidence that average methylmercury concentrations would exceed the 0.3 mg/kg selection criteria. Thus, setting of MLs cannot commence in the year 2019 because data collection requires considerable time (about two years) to plan and undertake.

The average methylmercury concentration of 0.3 mg/kg was adapted at CCCF11 (2017) as the selection criteria for identifying fish species that would present a potential need for an ML. The committee compared fish consumption amounts to reach the PTWI to the global 95th percentile fresh, frozen and cured fish consumption rate of 285 g/person per week, and the fish consumption amounts in the individual WHO GEMS cluster diets and considered that a methylmercury concentration greater than 0.3 mg/kg would be required to present a risk of exposures exceeding the PTWI of .6 µg/kg bw/day.

CCCF12 (2018) agreed to set MLs for tuna species (1.2 mg/kg), alfonsino (1.5 mg/kg), marlin (1.7 mg/kg) and shark (1.6 mg/kg). These are the concentration values where the trade rejection rates were less than 5%. The rejection rate was based on the ALARA principle, which was in line with the criteria for establishing MLs in the GSCTFF.

CCCF12 also noted that for future ML development, data on both methylmercury and total mercury would need to be available, as it was shown that for certain fish species the ratio of methylmercury to total mercury was very low and for the data analysis it could not always be assumed that total mercury would be mostly present as methylmercury.

Although a general selection criterion for identifying the species where methylmercury MLs could be derived had been established, the EWG developed a criterion based on further details to be considered before applying these to the species datasets in the GEMS/Food database. These considerations included:

- the number of samples required to be confident in a species being above, or below, the selection criteria,
- the use of species groupings at genus, family or order level, or alternatively for the common name applied in trade, and,
- the application of results to common names that are used generically for multiple species (for example, snapper).

The species or taxonomic groupings of fish (in the table above) have been identified as having potential average levels of methylmercury enough to exceed the selection criterion of 0.3 mg/kg.

**POSITION 2:** Ghana supports the recommendation for the CCCF to consider additional species (in the table below) for further data collection and potential inclusion at a later stage.

Grouping (identified species)	Notes on data collection
Sea bass	Data collection needs to identify specific species. Methylmercury data required
Spanish mackerel	Methylmercury data required
Phycid hake (white hake)	Methylmercury data required

Pike	Data collection needs broader geographic distribution Methylmercury data required.
Sturgeon	Data collection needs broader geographic distribution Methylmercury data required
Grouper	Data collection needs broader geographic distribution Methylmercury data required

**RATIONALE:** Although not within the proposed work programme, the fish contribute to methylmercury exposure. Further data including data from Africa will inform our knowledge about safety and possibility to start new work on MLs for them.

**AGENDA ITEM 17- DISCUSSION PAPER ON THE ESTABLISHMENT OF MAXIMUM LEVELS FOR TOTAL AFLATOXINS IN CEREALS (WHEAT, MAIZE, SORGHUM AND RICE), FLOUR AND CEREAL-BASED FOODS FOR INFANTS AND YOUNG CHILDREN**

**POSITION:** Ghana supports the following recommendations of the EWG:

1. Starting new work on the establishment of MLs for total aflatoxins and associated sampling plans for the food categories described below.

<b>Food category</b>
Maize grain, destined for further processing <sup>a</sup>
Flour, meal, semolina and flakes derived from maize
Husked rice
Polished rice
Wheat grain, destined for further processing
Flour, meal, semolina and flakes derived from wheat, excluding whole wheat flour
Cereal-based Food for infants and young children <sup>b</sup>

<sup>a</sup> Destined for further processing" means intended to undergo an additional processing/treatment that has proven to reduce level of AFs before being used as an ingredient in foodstuffs, otherwise processed or offered for human consumption. Codex members may define the processes that have been shown to reduce levels; <sup>b</sup> All cereal foods intended for infants (up to 12 months) and young children (12 to 36 months).

2. To decide whether rice flour should be included in the food categories listed above, considering its low impact on aflatoxins exposure worldwide, but its importance to coeliacs; If the committee agrees to include rice flour, to discuss whether grouping rice flour with polished rice and applying the same ML;
3. To decide if a call for data should be launched to gather information on AFs occurrence in whole wheat flour and, if new data becomes available, whether this food category should be added to the categories selected for the new work;
4. To launch a call for data on AFs occurrence for the food categories selected for the new work on the establishment of MLs for total aflatoxins to ensure that the proposed limits are estimated using a representative dataset. Data should be submitted specifying exactly the type of product (for example, whole or white flour);
5. To encourage Codex members to submit information on analytical methods and sampling plans for collecting occurrence data on AFs in cereals and cereal products in order to discuss associated sampling plans and analytical methods

**ISSUE/RATIONALE:** The dietary exposure assessment conducted by the EWG (chaired by Brazil and co-chaired by India) showed that polished rice and maize flour contributed the most to total AFs exposure, due to both high patterns of consumption of these foods in all cluster diets and high levels of AFs contamination. Additionally, the dietary exposure assessment performed by JECFA in 2016 and reported in 2017 at the CCCF11 showed that cereal and cereal-based products, maize and maize-based products, rice, sorghum and sorghum-based products and wheat and wheat-based products contributed the most to total AFs exposure, mainly due to high patterns of consumption of these foods in all cluster diets. The dietary exposure to AFs

through the consumption of cereals and cereal products was conducted using the GEMS/Food occurrence data and mean consumption data obtained from the 17 Cluster Diets.

Specifically, the JECFA report showed that only five food commodities (maize, peanuts, rice, sorghum and wheat) contributed to more than 10% each to international dietary exposure estimation, for more than one GEMS/Food Cluster Diet, for either AFs or AFB1.

Based on the information generated, the JECFA recommended that rice, wheat and sorghum should be considered in future risk management activities for aflatoxins. At that moment, the CCCF agreed that a discussion paper on the occurrence of these mycotoxins in cereals (mainly maize, rice, sorghum and wheat) should be prepared and presented at CCCF12 in 2018.

At CCCF12 (2018), a discussion paper on aflatoxins in cereals was presented to the Committee. The document showed that maize, rice, wheat and their derived products, contributed the most to total dietary AFs exposure. The discussion paper also showed that the establishment of any MLs for these food categories would greatly reduce AFs exposure worldwide. At that time, the Committee agreed that new work on the establishment of MLs for AFs in cereals should be developed.

Thus, CCCF12 agreed to establish the EWG chaired by Brazil and co-chaired by India to present at the CCCF13 a discussion paper on a proposal for establishment of MLs for total aflatoxins in cereals and cereal products, including cereal-based food for infants and young children, and focusing on maize, rice, sorghum, wheat and flours of these cereals.

**POSITION 2:** Ghana supports the inclusion of sorghum in the food categories selected for the new work.

**ISSUE/RATIONALE:** JECFA's evaluation has shown that sorghum contributes to 16-59% of dietary exposure in six GEMS/Food clusters. Per capita consumption of sorghum in Africa is high (up to 219 g/person/day in Tanzania) and contamination in the food is very high.

#### **AGENDA ITEM 19a - PRIORITY LIST OF CONTAMINANTS AND NATURALLY OCCURRING TOXICANTS FOR EVALUATION BY JECFA**

**POSITION:** Ghana supports the priority list of contaminants and naturally occurring toxicants for evaluation by JECFA.

**RATIONALE:** The chemicals in the priority list (dioxins, inorganic arsenic, scopoletin, ergot alkaloids, ciguatoxins, trichothecenes (T2, HT2) are relevant to Ghana as they are contaminants in some of our staple foods such sorghum, rice and maize. Submission of data by African countries will lead to meaningful contribution on setting MLs and help to minimize technical barriers to trade in addition to protection of health of consumers.