

# 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, 18**

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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 African Union

#### **AGENDA ITEM 5: PROPOSED DRAFT MLS FOR LEAD IN SELECTED COMMODITIES IN THE GSCTFF (CXS 193-1995) (AT STEP 4) (CX/CF 19/13/5 AND CL 2019/07- CF)**

**Position 1:** African Union supports the lowering of maximum levels for lead in wines and edible offal from cattle, pig and poultry.

**Issue & Rationale:** The work on revision of MLs started as a response to new toxicological evaluation of lead in food conducted by JECFA at its 73<sup>rd</sup> meeting. The study revealed that exposure to lead is associated with various neurodevelopmental effects making fetuses, infants and children most sensitive to lead poisoning. In order to protect these susceptible groups, it was agreed at the 6th session of CCCF in 2012 that the maximum levels (MLs) for lead in fruit juices, milk and milk products, infant formula, canned fruits and vegetables, fruits, and cereal grains (except buckwheat, cañihua and quinoa) in the General Standard for Contaminants and Toxins in Food and Feed (GSCTFF) be revised. The Committee also agreed to consider consolidating the MLs for canned fruit and vegetable products. The subsequent sessions proposed and approved MLs for various foods.

Subsequent CCCF sessions lowered MLs for lead in the canned berries and small fruit, canned leafy vegetables, canned legume vegetables, jams and jellies and prickled cucumber to 0.1mg/kg. The new MLs are passion fruits and nectars (0.4mg/kg), preserved tomatoes (0.05mg/kg), tomatoes concentrates (0.05mg/kg), table olives (0.4mg/kg) and fungi and mushroom (0.3mg/kg). Other food products that had new MLs include juices and nectars, canned chestnuts and canned chestnut purees, canned berries and small fruits, canned leafy vegetables, canned chestnuts and canned chestnut purees, canned brassica vegetables, and tomatoes concentrates.

The current document proposes to lower MLs for non-fortified and fortified wine and edible offal from cattle, pig and poultry based on LOQ-limited dataset from Australia, Canada, China, European Union, Japan, New Zealand, Singapore and USA as shown in the table above. The LOQ-limited dataset used for non-fortified and fortified wine were 14453 and 600 respectively while those for the edible offal are cattle (13193), pig (27352) and poultry (9089).

South Africa is the biggest producer and exporter of wine in Africa and results of analysis of lead in 39 non fortified wine samples of vintage (2000-2013) had lead concentrations between the range of 0.008mg/l and 0.033 mg/l which are below the 0.05 mg/l recommended by the EWG. Similarly, data generated by the Uganda on Lead between 2017 and 2019 showed that all 50 samples of both imported and locally produced wines (Red wines -12, Still table wines -33, Fortified wines -4 and Sparkling wine -1) had levels below 0.05mg/l. With these data being below the EWG recommended levels for both fortified and non-fortified wines, it is assumed that wines from Africa will comply with the recommended MLs (0.05mg/kg for fortified and 0.15mg/kg).

The MLs for edible offal were proposed without data from Africa but considering the significant import of edible offal to Africa and the need to promote public health and facilitate international trade, African Union supports the proposed limits.

Table 5: Current and proposed Maximum limits of products for consideration at CCCF13

Session CCCF 13	Food Product	Current ML (mg/kg)	Proposed ML (mg/kg)	Remarks
1	Non-fortified wine	0.2	0.05 or 0.1	Applies to wine made from grapes harvested after the date of the establishment of the ML.
2	Fortified or liqueur wine	0.2	0.15	Applies to wine made from grapes harvested after the date of the establishment of the ML
3	Edible offal cattle	0.5	0.15	
4	Edible offal-pig	0.5	0.15	
5	Edible offal-Poultry	0.5	0.1	

### AGENDA ITEM 6: PROPOSED DRAFT MLS FOR CADMIUM IN CHOCOLATE AND COCOA-DERIVED PRODUCTS (AT STEP 4) (CX/CF 19/13/6 AND CL 2019/08-CF)

**Position 1:** African Union supports the setting of MLs for cadmium in chocolate and cocoa-derived products

**Issue and Rationale:** Contamination of cadmium in food has become a concern in many countries. The metal can accumulate in kidneys leading to irreversible renal tubular dysfunction. High cadmium intake is also associated with the formation of kidney stones as well as problems with the skeletal and respiratory systems. Cadmium is abundant in nature and can be released to the environment in different ways including natural activities such as volcanic activities and through anthropogenic activities such as mining and smelting of ores containing zinc, burning of fossil fuels and emissions from discarded batteries.

About 72% of the world supply of cocoa beans comes from West Africa, especially Cote d'Ivoire, Ghana, Nigeria and Cameroon. Other cocoa-producing countries include Ecuador, Brazil, Peru, Indonesia and Papua New Guinea. Cadmium levels in cocoa beans can vary considerably between regions with West Africa having the lowest concentration.

Exposure assessment to cadmium from consumption of cocoa and cocoa-derived products by JECFA (77<sup>th</sup> Meeting in 2013) concluded that total cadmium exposure for high consumers of cocoa and cocoa products was not a health concern. CCCF 8 (2014) however decided that the lack of MLs could threaten the exports of some member countries thus the decision to set MLs for cadmium. The EWG led by Ecuador, Brazil and Ghana proposed categories and MLs for "chocolates" and for "cocoa powder and dry mixtures of cocoa and sugars which were discussed during CCCF12 (2018).

Consensus was reached on the following during CCCF12:

1. Chocolate containing or declaring  $\geq 50\%$  to  $<70\%$  total cocoa solids on a dry matter basis: The ML of 0.8 mg/kg proposed by the EWG for this category was accepted and has been adopted by CAC41 (2018) at Step 5/8.
2. Chocolate containing or declaring  $\geq 70\%$  total cocoa solids on a dry matter basis: A consensus ML of 0.9 mg/kg was approved and has been adopted by CAC41 (2018) at Step 5/8.
3. Dry mixtures of cocoa and sugars: There was no agreement on whether this item should be continued, as commercial products generally failed to declare the percent cocoa solids. Work on this agenda item was therefore discontinued.

**Position 2:** African Union supports the EWG proposed ML of 0.4 mg/kg for cadmium in chocolate products containing or declaring  $<30\%$  total cocoa solids on a dry matter basis.

**Rationale:** CCCF12 postponed the discussion on this category to CCCF13 (2019) to enable the EWG assess the feasibility of merging two categories (chocolate with  $<30\%$  total cocoa solids and chocolate with  $\geq 30\%$  to  $<50\%$  total cocoa solids) to derive one ML for chocolate containing or declaring  $<50\%$  total cocoa solids on a dry matter basis. A further call for additional data was made.

The EWG did not recommend the merger because only one member country from the EWG agreed to it. The EWG therefore proposed separate MLs for the two categories. The proposed ML of 0.3 – 0.4 mg/kg for chocolate with  $<30\%$  total cocoa solids was based on the ALARA principle (GSCTFF, CODEX STAN 193-1995) using a 95% cut-off point (a 5% rejection rate). The proposed ML of 0.3 mg/kg being for the scenario using world wide data which gives a rejection value of 3.2% and the proposed ML of 0.4 mg/kg being the value obtained using data from the Latin America and the Caribbean giving a rejection rate of 4.7% (Table 3). It

should be noted that accepting an ML value of 0.3 mg/kg will result in a rejection rate of 12.0% for countries from Latin America and the Caribbean.

**Position 3:** African Union does not support the EWG proposed ML of 0.9 mg/kg for cadmium in chocolate products containing or declaring  $\geq 30\%$  to  $<50\%$  total cocoa solids on a dry matter basis. African Union recommends a further call for additional data for chocolate products in this category especially from other cocoa/chocolate producing regions of the world.

**Rationale:** During CCCF12 (2018) a ML of 0.5 mg/kg was proposed for this category by the EWG which was rejected due to lack of consensus. Discussion was therefore deferred to CCCF13 with a call for additional data. Data used in arriving at the current proposed ML of 0.9 mg/kg is biased in favour of Latin America and the Caribbean (LAC). A total of 599 samples were considered with 539 coming from the LAC region, 26 from Asia, 34 from North America and the Southwest Pacific. There was no data from Africa.

It is also noteworthy that an ML of 0.8 mg/kg was proposed and accepted for the category of chocolate containing or declaring  $\geq 50\%$  to  $<70\%$  total cocoa solids on a dry matter basis during CCCF12. This ML has since been adopted at Step 5/8 by CAC41 (2018). It stands to reason therefore that Chocolates with higher percentages of total solids (50-70%) cannot have lower MLs (0.8mg/kg) than those with lower percentages of total solids (30-50%).

**Position 4:** African Union does not support the EWG proposed ML of 3.0 – 4.0 mg/kg for cadmium in cocoa powder (100% total cocoa solids on a dry matter basis).

**Rationale:** CCCF12 (2018) approved and forwarded an ML of 0.9 mg/kg for cadmium in chocolate containing or declaring  $\geq 70\%$  total cocoa solids on a dry matter basis to CAC41 (2018) and this was adopted at Step 5/8. Proposing an ML of 3.0 – 4.0 mg/kg for cocoa powder with 100% total cocoa solids appears problematic. It is worth noting that the EWG proposed a much lower ML of 1.5 mg/kg during CCCF12 (2018) and even though there was general support for this ML, CCCF was reminded that based on total cocoa solids, the ML for cocoa powder should be consistent with the ML of 0.9 mg/kg established for chocolate containing or declaring 70% total cocoa solids on a dry matter basis. Data used in arriving at the current proposed MLs also appears skewed with only 105 of 3035 samples from Africa. Latin American Countries and Europe submitted data on 1192 and 1164 samples respectively.

#### **AGENDA ITEM 7: 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 (AT STEP 7) (CX/CF 19/132/7 AND CL 2019/09-CF)**

**Position:** African Union supports the adoption of the Code of Practice.

**Issue and rationale:** Both 3-MCPDE and GE are contaminants produced during oil refining and have toxic effects on kidney and male reproductive organs, whereas their non-esterified forms are carcinogenic. They are formed during the heating process, although by different mechanisms, so that there is no general relationship between the levels of the two contaminants. GE forms at temperatures above 200°C and its formation increases as the temperature rises, whereas 3-MCPDE is formed at lower temperatures (160-200°C) in the presence of chlorinated compounds, but formation does not increase at higher temperatures. Previously, Codex established a COP (CAC/RCP 64-2008) which addresses mitigation measures for 3-MCPD (the non-esterified moiety) formation in acid-hydrolyzed vegetable proteins.

The draft code considered at CCCF12 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 African refiners and should be adopted. An outstanding issue is whether reference should be made to water/ethanol mixtures as an additional example to chlorine-free water when washing crude vegetable oil with polar solvent to remove chlorine-containing compounds. This additional example of a polar solvent would appear to be unnecessary.

#### **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 (AT STEP 7) (CX/CF 19/13/8 AND CL 2019/10-CF)**

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

**Issue and 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. All reference to the 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. The TTC is an exposure level below which mutagenic or carcinogenic compounds are expected to have no health concern. This exposure is then used to calculate the “cut-off value” with assumptions on food intake of the affected commodity. The standard “cut-off value” of 1 µg/kg is thus obtained, but may need to be adjusted in cases where the affected commodity is consumed at a greater percentage of the diet than the value of 10% assumed in the standard calculation (for example, infant foods).

#### **AGENDA ITEM 11: ESTABLISHMENT OF NEW MLS FOR LEAD IN COMMODITIES ACCORDING TO A PRIORITIZATION APPROACH (CX/CF 19/13/9)**

**Position 1:** African Union 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.

**Issue and Rationale:** Following the evaluation of lead by JECFA at its 73rd meeting which associated lead exposure to neurodevelopmental effects, impaired renal function, hypertension, impaired fertility and adverse pregnancy outcomes; emphasizing that fetuses, infants and children are the most sensitive to lead, CODEX has since 2012 embarked on lowering of MLs for lead in foods in the *General Standard for Contaminants and Toxins in Food and Feed* (GSCTFF) (CXS 193-1995). Accordingly, revision of MLs for lead in selected fruits, vegetables and other categories of foods in GSCTFF have been revised and is still ongoing. However, because of the wide support to continue work on new MLs for a range of food categories, CCCF at its 11<sup>th</sup> session established an EWG chaired by Brazil to prepare the current document which prioritizes food categories that are not included in GSCTFF for establishment of new MLs for lead.

CCCF 12 approved the prioritization approach which was also based on global lead occurrence data and importance of commodity in international trade (both importation and exportation) i.e. lead concentration was classified into 3 groups based on the mean: high occurrence level ( $\geq 0.05$  mg/kg), intermediate occurrence level ( $0.01 \leq x < 0.05$  mg/kg) and low occurrence level ( $< 0.01$  mg/kg).

Impact of food categories on International trade was also classified in three groups, considering the percentage contribution of each category in total quantity of international trade: high impact ( $>10\%$ ), intermediate impact ( $1 \leq x < 10\%$ ) and low impact ( $< 1\%$ ) in international trade. This led to three categories of foods as presented in the table 6 below.

CCCF12 also agreed to re-establish the EWG led by Brazil to prepare a revised discussion paper and project document which also took into consideration the importance of the lead reduction intake to human health, the importance of the commodities to international trade, the lead intake and the data availability in establishing the prioritization categories for MLs, and to propose MLs for the categories indicated with a focus on commodities identified as high in the priority list as shown below.

The current document therefore proposes the following prioritization criteria:

1. Food consumed by children

<p><b>High priority</b></p> <ol style="list-style-type: none"> <li>1. Cereal-based food for infants and young children</li> <li>2. Fruit juice and herbal tea for infants and young children</li> <li>3. Canned baby food</li> <li>4. Tea and herbal tea (herbs/fruits for infusions)</li> <li>5. Products for special nutritional use</li> <li>6. Cocoa and cocoa products</li> <li>7. Seafood (except fish)</li> <li>8. Dried fruits</li> <li>9. Processed fishes</li> </ol>	<p><b>Intermediate Priority</b></p> <ol style="list-style-type: none"> <li>1. Eggs</li> <li>2. Algae and seaweeds</li> <li>3. Nuts and oilseeds</li> <li>4. Sugar and confectionery (excluding cocoa)</li> <li>5. Cereal flours and starches</li> <li>6. Dried vegetables</li> <li>7. Spices and Aromatic herbs</li> <li>8. Alcoholic beverages (except wine)</li> <li>9. Coffee and coffee-based beverages</li> </ol>
<p><b>Low Priority</b></p> <ol style="list-style-type: none"> <li>1. Stalk vegetables</li> <li>2. Vegetable juice</li> <li>3. Ice and desserts</li> <li>4. Non-alcoholic beverages</li> </ol>	

2. Foods that contribute significantly to total dietary exposure to lead and are important to international trade.

The EWG considered food categories as priorities to work on new MLs for lead if the categories showed high impact of lead exposure for at least one of the two toxicological endpoints as well as a high or intermediate impact on international trade. 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:** African Union supports the prioritization list of foods below because they contribute most to dietary exposure to lead, health impact and international trade.

**Issue and 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
- i. 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:** African Union supports the commencement of new work to set MLs for lead in the priority food categories mentioned above, considering the available data in the GEMS/Food database.

**Issue and 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.

**Position 4:** African Union agrees that a call for data for food categories identified as priorities should be launched.

**Issue and 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:** African Union 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.

**Issue and 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.

**Position 6:** African Union 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.

**Issue and 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: REVISION OF THE CODE OF PRACTICE FOR THE PREVENTION AND REDUCTION OF LEAD CONTAMINATION IN FOODS (CXC 56-2004) (CX/CF 19/13/11)**

**Position 1:** African Union 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

**Issue and Rationale:** Following the disclosure at the 73<sup>rd</sup> session of JECFA that lead exposure is associated with neurodevelopmental effects, mortality (mainly due to cardiovascular diseases), impaired renal function, hypertension, impaired fertility, and adverse pregnancy outcomes, JECFA withdrew the previously established provisional tolerable weekly intake (PTWI) of 25 µg/kg bw and concluded that it was not possible to establish a new PTWI that would be considered health protective. JECFA therefore recommended that measures should be taken to identify major contributing sources and methods to reduce dietary exposure that are commensurate to the level of risk. In line with these recommendations, CCCF12 set up an EWG chaired by USA and co-chaired by UK to prepare this discussion paper, including a project document for a proposal for new work on revision of the existing COP (CXC 56-2004). 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.

#### **AGENDA ITEM 14: DEVELOPMENT OF A CODE OF PRACTICE FOR THE PREVENTION AND REDUCTION OF CADMIUM CONTAMINATION IN COCOA (CX/CF 19/13/12)**

**Position 1:** African Union supports the development of a Code of Practice (COP) for the prevention and reduction of cadmium contamination in cocoa.

**Issue & Rationale:** Cocoa is a valuable commercial crop that contributes to the economies of several developing countries including Cote d'Ivoire, Ghana, Nigeria and Cameroon. Cadmium levels in cocoa has attracted attention lately such that Codex is currently in the process of proposing MLs for cadmium in chocolates and cocoa-derived products. The European Union has also established MLs for cadmium concentrations in foodstuffs including cocoa and chocolate products (EU Regulation No. 488/2014) which took effect from 1<sup>st</sup> January 2019.

The 11<sup>th</sup> CCCF (2017) agreed to the development of a discussion paper by an EWG led by Peru for consideration and discussion at the 12<sup>th</sup> session with the view to commencing new work on this issue. CCCF12 (2018) charged the EWG to prepare a project document on the opportunity to develop the COP and outline the the risk mitigation measures available that would support the development of the COP.

The current Discussion Paper is in three parts:

- A Project document on the proposal for new work on the development of a COP to prevent and reduce cadmium contamination in cocoa beans. (Appendix I)
- A draft Outline of the COP (Appendix II)
- Technical information to assist Codex members and CCCF in making a decision on the appropriateness of new work on a COP for the prevention and reduction of cadmium contamination in cocoa beans (Appendix III).

The draft COP is expected to 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. The COP has four sections namely: Introduction, Scope of application, Definitions, and Recommended practices to prevent and reduce contamination before sowing, during production phase until harvesting and during the post-harvest phase. Appendix III presents technical background information covering sampling guidelines for the determination of cadmium levels in soils, leaves, grains and cocoa products as well as factors that determine cadmium absorption by plants and strategies to immobilize cadmium and decrease its availability in soil. Conditions of soil and water that favour cadmium bioaccumulation in cocoa beans are also outlined. Survey results on field production measures to prevent and reduce cadmium contamination in cocoa in countries such as Columbia, Ecuador, Brazil, and Peru are also presented as background information to be used in the development of the COP.

Based on the foregoing, there is currently adequate information to be used to develop the COP.

#### **AGENDA ITEM 15: ESTABLISHMENT OF MLS FOR METHYLMERCURY IN ADDITIONAL FISH SPECIES (CX/CF 19/13/13)**

**Position 1:** African Union 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) Toothfish (Patagonian toothfish) Ling (Cusk, Blue ling) Cusk-eel (Pink Cusk-eel, Kingclip) Sablefish	2019-2020
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

#### **Issue and 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:** African Union 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

#### Issue and rationale.

Although not within the proposed work programme, fish contribute to methylmercury exposure. Further data that is geographically representative will inform our knowledge about safety and possibility to start new work on MLs for the above-mentioned fish species.

#### **AGENDA ITEM 17: ESTABLISHMENT OF MLS FOR TOTAL AFLATOXINS IN CEREALS (WHEAT, MAIZE, SORGHUM AND RICE), FLOUR AND CEREAL-BASED FOODS FOR INFANTS AND YOUNG CHILDREN (CX/CF 19/13/15)**

**Position 1:** African Union supports the following recommendations of the EWG to:

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

Food category
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:** African Union supports the inclusion of sorghum in the food categories selected for the new work.

**Issue and 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 18: GENERAL GUIDANCE ON DATA ANALYSIS FOR ML DEVELOPMENT (CX/CF**

**19/13/16)**

The developing and setting of MLs, both internationally and nationally, represents an important risk management process. In summary, a ML that is too high will not be health protective, whereas too low a ML can negatively affect food supply. Guidance on this important process is thus welcomed.