BACKGROUND

1. CCCF13 (2019) agreed to establish an electronic working group (eWG), chaired by Canada and co-chaired by Japan and the United States of America (USA), working in English, to prepare a proposal for an approach to identify the need for review of existing standards and related texts developed by the Codex Committee on Contaminants in Foods (CCCF) for consideration at CCCF14. The discussion paper prepared for the CCCF session scheduled in 2020 (CX/CF 20/14/16) (attached to this discussion paper as Appendix II) provides background information on the origins of this new work.

COMMENTS IN RESPONSE TO CIRCULAR LETTER CL 2020/53/OCS-CF

2. Due to the global pandemic, CCCF14, initially planned for 2020, was rescheduled for 2021. In order to continue with the subject work, a circular letter (CL 2020/53/OCS-CF) was issued requesting comments on the three options put forward in paragraphs 43-45 of CX/CF 20/14/16:

   o Option 1 (status quo): Continue an ad hoc, or needs-based, review of existing Codex standards.

   o Option 2: Establish tracking lists of Codex standards >15 and >25 years since review or initial establishment and those recommended for re-evaluation by CCCF, CAC, or a member country. Ad hoc reviews of existing Codex standards would also continue under this option.

   o Option 3: Establish tracking lists of Codex standards >15 and >25 years since review or initial establishment and those recommended for re-evaluation by CCCF, CAC, or a member country. Codex standards >25 years old would be prioritized for assessment to determine if new data and scientific information is available to warrant their full review, with this work taken up voluntarily by a member country or assigned by the Chair.

3. The circular letter recommended the consideration of Option 2 for a 3-year trial period. It also sought input on alternative implementation approaches for Option 2 than those summarised in paragraph 49 of CX/CF 20/14/16 and additional or alternative prioritization criteria used to identify Codex standards and related texts for review than those presented in paragraphs 27 to 41 of CX/CF 20/14/16.
4. Thirteen (13) members commented in response to the circular letter. Twelve (12) members supported Option 2 on the basis that it builds on the current ad hoc, or needs-based, system but provides an additional organizational framework without appreciable increase in workload. One (1) member supported Option 3. The 3-year trial period for Option 2 was also generally supported, with two members noting that changes to the approach for Option 2 may be required during the trial period and/or a longer trial period may be needed. One member noted that performance metrics could be developed to help evaluate Option 2 both during and after the trial period.

5. No members commenting via the circular letter suggested additional prioritization criteria for identifying Codex standards and related texts for review. However, 3 members suggested that the prioritization criteria somehow be ranked or scored based on their priority.

6. No members commenting in response to the circular letter suggested alternatives to the general implementation approach for Option 2 presented and broad support was offered for the general implementation approach proposed.

**SCOPE**

7. The scope of this paper is to present how the CCCF would implement and operationalize, on a 3-year trial basis, Option 2 as a structured approach for identifying existing Codex standards and related texts for review. Codex standards, for the purpose of this document, are maximum levels (MLs), guideline levels (GLs) and Codes of Practice (CoP).

8. The following topics are outside the scope of the current discussion paper but could be subject of future work by the CCCF:
   
i) Proposing a systematic approach on when to establish new MLs and CoPs; this includes proposing new Codex standards for food and contaminant combinations for which an ML(s) is established but no corresponding CoP exists, and vice versa;

   ii) Proposing a systematic approach on when to add chemicals to the Priority List of Contaminants Evaluation by the Joint FAO/WHO Expert Committee on Food Additives (JECFA); and

   iii) Proposing a systematic approach on when to develop sampling plans for food contaminants for which there are MLs or GLs but no sampling plans.

**PROPOSED IMPLEMENTATION APPROACH OF OPTION 2**

9. Option 2 focuses on establishing and annually updating two tracking lists of Codex standards: (i) a list of standards >15 and >25 years since the most recent review or initial establishment; and (ii) a list of standards recommended for re-evaluation by CCCF, CAC or a member country within a certain period of time or at an unspecified future date.

10. Following the example of how input is annually sought and communicated on the JECFA Priority List, the tracking lists (refer to paragraph 9) from the previous CCCF meeting would be included in each CCCF meeting report. A circular letter would be issued requesting comments on the tracking lists regarding the availability of new data and information that would be used to identify Codex standards for review. Comments would be posted as a sub-item to the CCCF agenda item on this topic. An in-session working group at the annual CCCF meeting would summarize the current review status and make recommendations to CCCF for any review priorities identified from the tracking lists. Tracking lists would be updated after the in-session working group and presented to CCCF during the plenary session, at which time the lists can be adopted as presented, or edited prior to adoption. CCCF would then consider how to balance these priorities with new Codex standard development.

11. For work to move forward, a member country would volunteer to determine the need for a revision of an existing Codex standard using the prioritization criteria outlined in Appendix I as guidance. If it’s determined that a Codex standard requires updating, a member country volunteer would proceed with the new work and prepare a discussion paper containing relevant data and findings.

12. In order to generate the tracking lists, a list of adoption years or the year of most recent review and/or update of Codex standards will also be maintained, based on the information document jointly prepared by Japan and the Netherlands for each session of the CCCF (INF/1), which contains comprehensive information including adoption years on all the existing MLs, GLs and CoPs.

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3 Australia, Brazil, Canada, Chile, Costa Rica, Cuba, Ecuador, European Union, Iraq, Morocco, Republic of Korea, Thailand, USA
13. Option 2 does not preclude the continued ad hoc review of existing Codex standards upon nomination by a Codex member and consistent with the guidance provided in the Preamble of the General Standard for Contaminants in Food and Feed (CXS 193-1995). The nominating member would undertake the new work and prepare a discussion paper containing relevant data and findings.

PROPOSED EVALUATION OF OPTION 2

14. Option 2 will be considered successful at providing a framework for the review of existing Codex standards if it results in clear rationales for updating standards, is flexible, does not increase administrative burden, results in updated Codex standards, if an update is needed, and, for standards that do not need to be updated, documents that a review has occurred.

15. One (1) member of the eWG convened in advance of CCCF14 (2021) suggested that because the factors outlined in paragraph 14 are subjective, some quantitative targets could be established to evaluate Option 2 during the 3-year time period. However, at the outset, it is recommended that the in-session working group at the annual CCCF meeting would review and report to CCCF on the success of the trial period of Option 2, in consideration of the factors outlined in paragraph 14.

16. The proposed approach remains flexible to enhancements and changes as CCCF becomes more familiar with it during the course of the 3-year trial period. The in-session working group would propose changes to CCCF, as necessary, based on feedback and its evaluation of the approach, including if additional or quantitative criteria are needed to help evaluate the success of Option 2.

PROPOSED PRIORITY RANKING OF THE CRITERIA FOR IDENTIFYING CODEX STANDARDS FOR REVIEW

17. The discussion paper prepared for the CCCF session scheduled in 2019 (CX/CF 19/13/18) (Appendix II) highlighted that areas identified for new work by the CCCF should focus on the reduction of health risks resulting from contamination of food. It also stated that criteria that give indications of a health concern should be given highest priority and that the magnitude, significance, and relative priority of each criterion would be considered by CCCF on a case-by-case basis once any new data and scientific information are assessed.

18. A disruption in international trade is another key criterion that the eWG convened in advance of CCCF14 (2021) indicated would be an important trigger for Codex standard review. Trade disruptions involving staple foods would be considered highest priority for triggering review of related Codex standards. The potential for or degree of disruption in international trade would be determined once any available information is assessed.

19. The eWG convened in advance of CCCF14 (2021) supported the case-by-case assessment by CCCF of new data and information available for each criterion, rather than a structured approach, when considering taking on new work to update existing Codex standards. However, the eWG also recommended that high level guidance be provided on the prioritization of the criteria, in order to provide predictability, consistency and efficiency, as well as for work planning purposes.

20. Appendix I lists the criteria for triggering a review of existing Codex standards, the likelihood of each criterion to indicate a potential safety concern and also proposes an overall priority ranking for each criterion. When considering taking on new work to update existing Codex standards, projects with one or more high priority (#1) rankings or a combination of high (#1) and medium (#2) priority rankings (refer to Appendix I) would be most highly recommended for future work.

21. New work to update existing Codex standards with lower overall priority rankings in Appendix I would need to be balanced with higher priority work, such that standards considered to be of lower priority would not be consistently overlooked for review.

22. Various factors will be considered when determining how to balance new work to update existing Codex standards, such as the availability and timing of availability of new data and information required for the updates, the complexity of the new work and if there are Codex members interested and available to volunteer to lead the new work.

23. The in-session working group can discuss, as necessary, how to help ensure the consistent use of the proposed priority ranking of the criteria for identifying Codex standards for review (Appendix I) and will propose changes to CCCF, as necessary, based on feedback and its evaluation of the circumstances encountered.
RECOMMENDATIONS

24. CCCF14 is invited to agree to the following:
   i. Implement Option 2 on a 3-year trial basis as outlined in paragraphs 9 to 13 and to evaluate Option 2 as outlined in paragraphs 14 and 16.
   ii. The prioritization criteria for identifying Codex standards for review and their priority rankings presented in Appendix I and the general application of the priority rankings outlined in paragraph 20 and in consideration of the information presented in paragraphs 21 to 23.

25. If the recommendations presented in paragraphs 24 i) and ii) are accepted, the tracking lists noted in paragraph 9 will be circulated for comment, in the form of a circular letter, in advance of CCCF15 by the Codex Secretariat based on the input provided by Chair of the in-session working group identified as per paragraph 23.

26. CCCF14 identifies a Chair of the in-session working group convening on this topic for the first time at CCCF15.
## APPENDIX I
(For consideration by CCCF)

**PROPOSED PRIORITIZATION OF CRITERIA FOR IDENTIFYING CODEX STANDARDS FOR REVIEW**

<table>
<thead>
<tr>
<th>Criteria for identifying Codex standards for review</th>
<th>Likelihood of indicating a potential safety concern</th>
<th>Overall proposed prioritization for review by CCCF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criteria for Maximum levels, Guideline Levels and Codes of Practice</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;15 years since review or initial establishment</td>
<td>Low to moderate</td>
<td>2</td>
</tr>
<tr>
<td>&gt;25 years since initial review or establishment</td>
<td>Moderate to high</td>
<td>1</td>
</tr>
<tr>
<td>Recommended for re-evaluation by CCCF, CAC or a member country within a certain period of time or at an unspecified future date.</td>
<td>Low to Moderate</td>
<td>2</td>
</tr>
<tr>
<td><strong>New occurrence data are available</strong>: Occurrence data identified by CCCF or its member countries and/or submitted to the GEMS/Food database are significantly different across two or more regions or markets than those used to establish the existing ML or GL.</td>
<td>Moderate to high</td>
<td>1</td>
</tr>
<tr>
<td><strong>New dietary exposure data are available</strong>: CCCF, JECFA, or other relevant joint FAO/WHO expert consultations recognized by CCCF developed new dietary exposure estimates or revised existing estimates that are significantly different than the previous estimates that were used to establish the existing ML or GL.</td>
<td>Moderate to high</td>
<td>1</td>
</tr>
<tr>
<td><strong>A new health-based guidance value (HBGV) is available</strong>: Either JECFA, upon request by CCCF, or other relevant joint FAO/WHO expert consultations recognized by CCCF developed a new HBGV, revised an existing HBGV that is significantly different than the previous HBGV that was used to establish the existing ML or GL, or withdrew an existing HBGV.</td>
<td>Moderate to high</td>
<td>1</td>
</tr>
<tr>
<td><strong>A new or updated health risk assessment is available from JECFA or other relevant joint FAO/WHO expert consultations recognized by CCCF and the conclusions are significantly different than the previous evaluation.</strong></td>
<td>Moderate to high</td>
<td>1</td>
</tr>
<tr>
<td><strong>Additional Criteria for Maximum Levels</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Codex commodity standards</strong>: Significant revisions have been made to the commodity standards for relevant foods or food groups for which MLs are established.</td>
<td>n/a</td>
<td>3</td>
</tr>
<tr>
<td><strong>Codex Classification of Food and Feed (CXM 4-1989)</strong>: Significant revisions have been made to this document for relevant foods or food groups for which MLs are established</td>
<td>n/a</td>
<td>3</td>
</tr>
<tr>
<td><strong>Trade disruptions</strong>: An existing ML for a certain food and contaminant combination is responsible for disruptions in international trade.</td>
<td>n/a</td>
<td>2</td>
</tr>
<tr>
<td>1 – when involving a trade disruption of a staple food</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Additional Criteria for Codes of Practice</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Technological advances and developments</strong>: Significant(^3) new information is available on contamination sources or processes, and/or agricultural, production and manufacturing practices related to food or feed contaminant management and control</td>
<td>n/a</td>
<td>2</td>
</tr>
<tr>
<td><strong>Expanded scope</strong>: CoP could include other contaminants or toxins, or food or feed, with comparable contamination sources or processes, and/or agricultural, production and manufacturing practices</td>
<td>n/a</td>
<td>3</td>
</tr>
<tr>
<td><strong>Comparable CoP updated</strong>: Updates to a CoP for a similar food or feed and contaminant combination may be transferable to another CoP or make an existing CoP redundant</td>
<td>n/a</td>
<td>3</td>
</tr>
</tbody>
</table>

n/a – not applicable

\(^1\)Certain criteria may overlap, particularly those relating to the various elements of a health risk assessment

\(^2\)Potential safety concern would be determined once any new data and scientific information are assessed

\(^3\)The significance would be determined on a case-by-case basis by CCCF
APPENDIX II
DISCUSSION PAPER ON THE IMPLEMENTATION OF A STRUCTURED APPROACH
TO IDENTIFY THE NEED FOR REVIEW OF
CODEX STANDARDS AND RELATED TEXTS FOR CONTAMINANTS IN FOODS
(CX/CF 20/14/16)
(For information)

BACKGROUND

1. At the 11th session of the Codex Committee on Contaminants in Food (CCCF11, 2017), the Codex Secretariat
highlighted the need for CCCF to develop a forward work plan to strategically establish or prioritize items within
its workload. CCCF11 agreed that the Codex Secretariat and Host Country Secretariat would develop a plan to
address this issue and report back at CCCF12.¹

2. A discussion paper regarding the forward workplan of CCCF was presented at CCCF12 (2018). The WHO
Representative underlined the value of longer-term forward planning to identify areas of concern for public
health with trade implications, allowing for data gathering well in advance.² CCCF12 agreed that a further
discussion paper would be prepared by the Codex, JECFA and the Host Country Secretariats with assistance of
the EU. The paper would focus on whether CCCF covered the main staple foods moving in international trade
and the related presence of contaminants being of public health concern.

3. At CCCF13 (2019), a discussion paper was presented to identify areas of work that CCCF could prioritize for future
meetings.³ The focus was on the reduction of health risks resulting from chemical contamination of food. The
importance of the identified commodities in trade was to be identified in a later stage. Four key areas were
presented in the appendices to the discussion paper. Appendix C focused on the review of existing Codex
standards, that is, Maximum Levels (MLs) and Guideline Levels (GLs) in the General Standard for Contaminants
in Food and Feed (CXS 193-1995)⁴, and Codes of Practice (CoPs)⁵.

4. Appendix B of the discussion paper³ outlined that CCCF, and the Codex Committee on Food Additives and
Contaminants (CCFAC) before it, established numerous standards, namely MLs, GLs, and CoPs. Some standards
were established long ago and have not been revised since, and for some contaminants CoPs have been
established and no MLs have been developed to date. At this time, updates to Codex standards stem from
discussions at CCCF, JECFA evaluations, and when new information becomes available. CCCF was invited to
consider if a structured approach with criteria on when and why to update/supplement existing standards should
be developed and if yes, what this approach should entail.

5. CCCF13 (2019) noted that keeping existing standards up-to-date was important, a work plan would be needed,
the proposed approach should not lead to too much administrative burden, and should not preclude ad hoc
decisions to revise the existing standards. CCCF13 agreed to establish an electronic working group (eWG), chaired
by Canada and co-chaired by Japan and the United States of America (USA), working in English, to prepare a
proposal for an approach to identify the need for review of existing CCCF standards for consideration at CCCF14.⁶

SCOPE

6. The scope of this paper is to discuss whether a structured approach should be developed to identify if the review
of existing Codex standards is needed.

7. The following topics are outside the scope of the current discussion paper but could be the subject of future
work by CCCF:
   i) Developing the actual structured approach that would be implemented and used to review existing Codex
      standards, and how this could be integrated with processes related to new Codex standard development;
   ii) Proposing a systematic approach on when to establish new MLs and CoPs; this includes proposing new
       Codex standards for food and contaminant combinations for which an ML(s) is established but no
       corresponding CoP, and vice versa;

¹ REP 17/CF, paras. 156-157
² REP 18/CF, paras. 149-156
³ CX/CF 19/13/18
⁶ REP 19/CF, paras. 170-184
iii) Proposing a systematic approach on when to add chemicals to the Priority List of Contaminants and Naturally Occurring Toxicants for Evaluation by the Joint FAO/WHO Expert Committee on Food Additives (JECFA); and

iv) Proposing a systematic approach on when to develop sampling plans for food contaminants for which there are MLs or GLs but no sampling plans.

DEFINITIONS

8. The *General Standard for Contaminants in Food and Feed* (CXS 193-1995) defines MLs and GLs for the purposes of contaminants and toxins in food and feed and provides some general information about CoPs (see paragraphs 9 through 11).

9. **A Maximum level (ML)** for a contaminant in a food or feed commodity is the maximum concentration of that substance recommended by the Codex Alimentarius Commission (CAC) to be legally permitted in that commodity.\(^7\)

10. **A Guideline level (GL)** is the maximum level of a substance in a food or feed commodity which is recommended by CAC to be acceptable for commodities moving in international trade. When the GL is exceeded, governments should decide whether and under what circumstances the food should be distributed within their territory or jurisdiction. Because CAC has decided that the preferred format of a Codex standard in food or feed is a ML, the present existing or proposed GLs shall be reviewed for their possible conversion to a ML after a risk assessment performed by JECFA, if appropriate.\(^8\)

11. **A Code of practice (CoP)** is not expressly defined in the GSCFF or any other Codex documents. The GSCFF, however, indicates that a CoP is established to ensure that adequate action is taken to reduce contamination of food and feed. A CoP shall be elaborated comprising source related measures and Good Manufacturing Practices (GMPs) as well as Good Agricultural Practices (GAPs) in relation to the specific contamination problem.\(^9\)

BACKGROUND INFORMATION

12. The Codex Procedural Manual\(^10\) states that when a Codex Committee proposes to elaborate a new standard, CoP or related text within its terms of reference, it should first consider the priorities established by CAC in the Strategic Plan, the relevant outcomes of the Critical Review conducted by the Executive Committee (CCEXEC), and the prospect of completing the work within a reasonable period of time. It should also assess the proposal against the Criteria for the establishment of work priorities (applicable to general subjects) set out in Section II of the Procedural Manual.

**Guideline Levels and Maximum Levels**

13. The CAC indicates that the preferred format of a Codex standard in food or feed is an ML and that existing or proposed GLs shall be reviewed for their possible conversion to MLs after a risk assessment performed by JECFA, if appropriate.\(^11\) This approach was taken for the GLs in the GSCFF for methylmercury in predatory and non-predatory fish, which were revoked by the CAC following the establishment of MLs for methylmercury in tuna, alfonsino, marlin, and shark.\(^12\) JECFA’s *Consultation on the Risks and Benefits of Fish Consumption*\(^13\), conducted upon request of CCFAC38 (2006)\(^14\), informed CCCF’s review of the methylmercury GLs\(^15\). CCCF’s work to consider establishing MLs for methylmercury in other fish species is ongoing.

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\(^7\) GSCFF, Section 1.2.4
\(^8\) GSCFF, Section 1.2.4, Footnote 1
\(^9\) GSCFF, Section 1.3.1
\(^10\) Procedural Manual, Section II
\(^11\) GSCFF, Section 1.2.4, Footnote 1
\(^12\) REP 18/CAC, Appendix V
\(^14\) ALINORM 06/29/12; paras. 191, 192
\(^15\) REP11/CF, para. 98; REP12/CF, para. 45
Certain Codex documents describe the criteria for establishing new MLs for contaminants in food and feed. The GSTCFF states that a Codex ML in food and feed should be set only for those contaminants that present both a significant risk to public health and a known or expected problem in international trade. As well, MLs should be set only for food that is significant for the total exposure of the consumer to the contaminant. Further, MLs should be set in such a way that the consumer is adequately protected. The GSTCFF also provides detailed information on the data and information requirements for ML elaboration; for example, the availability of information on sampling procedures, internationally representative data, a tolerable intake level, exposure estimates, and complete risk assessment.

No Codex documents provide guidance on what would trigger a review of existing Codex MLs in the GSTCFF. No existing Codex MLs are currently undergoing review, however, some existing MLs have been reviewed, in the past, as was the case for the lead. At CCCF03 (2009), member countries requested that lead be added to the JECFA Priority List. The JECFA74 (2011) re-evaluation for lead concluded that the previously established provisional tolerable weekly intake (PTWI) for lead could no longer be considered health protective and was withdrawn. JECFA’s updated assessment of lead, general awareness that levels of lead in foods had decreased over time, and that the MLs reflected outdated production practices triggered CCCF to review the existing Codex MLs for lead. The updates to the established lead MLs in the GSCFF were completed in 2019 by CCCF13.

**Codes of Practice**

The Codex Procedural Manual (Section IV, paragraph 10) provides some general guidance on when a new CoP for a food contaminant would be established. It indicates that when there is evidence that a risk to human health exists but scientific data are insufficient or incomplete, the CAC should not proceed to elaborate a standard but should consider elaborating a related text, such as a CoP, provided that such a text would be supported by the available scientific evidence.

The preferred approach of CCCF is to elaborate a CoP before an ML(s) is established for a certain food and contaminant combination. This approach is implied by the GSCFF, which states that contaminant levels in food and feed shall be as low as reasonably achievable (ALARA) through best practice such as GAPs and GMPs, and that, where possible, MLs should be based on GMP and/or GAP considerations in order to achieve contaminant levels that are ALARA. This approach has been demonstrated in the case of aflatoxins in tree nuts, for which the CoP (CXC 59-2005) was finalized in 2005 and the MLs in 2008. Another example is for tin in canned foods; the CoP (CXC 60-2005) was established in 2005 and the MLs for canned beverages and foods in 2007.

Eleven (11) of the 22 CoPs elaborated by CCCF do not have associated MLs (Appendix C). For example, CCFAC25 (2002) agreed that MLs for dioxins and polychlorinated biphenyls (PCBs) should not be elaborated due to the lack of globally representative data, the opinion of member countries that source-directed measures were the most effective tool to reduce dioxin levels, and the need for economical and practical analytical screening methods. The CoP for dioxins and PCBs (CXC 62-2006) was subsequently elaborated.

Despite the preferred approach to establish CoPs before MLs for a given food and contaminant combination, of the 103 individual Codex MLs, 29 do not have an associated CoP (Appendix A). Of the 41 individual Codex GLs, none have an associated CoP (Appendix B).

No Codex documents provide guidance on what would trigger a review of an existing CoP. Of the 22 CoPs elaborated by CCCF, 3 have undergone updates. Currently, one CoP, that for lead in foods (CXC 56-2004), is in the process of being updated and no others are scheduled for review or have been raised for new work (Appendix C).
21. When CoPs are updated and when new CoPs are developed, CCCF first determines, through a discussion paper presented at CCCF, if there is sufficient information/new information available on contamination sources and mitigation measures that would warrant such work. For example, the CoP for dioxins and dioxin-like PCBs (CX 62-2006) was updated in 2018 to also include non-dioxin-like PCBs, as their sources in food and feed are similar to dioxin-like PCBs.

EXISTING CODEX STANDARDS: TIMING OF ELABORATION AND UPDATE

Maximum Levels and Guideline Levels in the GSCFF

22. The GSCFF was established in 1995, almost 25 years ago. Prior to the GSCFF being established, Codex MLs and GLs were housed in individual Codex standard documents for each food and contaminant combination.

23. As of December 31, 2019, there were a total of 103 Codex MLs and 41 Codex GLs for different food and contaminant combinations in the GSTCFF. A summary of the number of years since the establishment, or the most recent review, of Codex MLs and GLs is shown in the Table 1 and the complete lists of MLs and GLs in the GSTCFF are provided in Appendices A and B, respectively.

Table 1. Length of time since MLs and GLs in the GSCFF were established or updated

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Number of MLs</th>
<th>Number of GLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within last 5 years (2015-2019)</td>
<td>40</td>
<td>- (radionuclides)</td>
</tr>
<tr>
<td>&gt; 5 years (2010-2014)</td>
<td>26</td>
<td>40</td>
</tr>
<tr>
<td>&gt; 10 years (2005-2009)</td>
<td>22</td>
<td>-</td>
</tr>
<tr>
<td>&gt; 15 years (2000-2004)</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>&gt; 20 years (1995-1999)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>&gt; 25 years (before 1995)</td>
<td>10</td>
<td>1 (vinylchloride monomer)</td>
</tr>
</tbody>
</table>

a refers to year the ML was most recently reviewed by CCCF; based on the results of the assessment, the ML value was either retained, as is, or updated in the GSCFF. The dates of original adoption of Codex MLs and GLs are not listed in the GSCFF and are not available elsewhere.

Codes of Practice

24. As of December 31, 2019, 22 CoPs have been elaborated by CCCF, and a new CoP for cadmium in cocoa is in development. A summary of the number of years since the establishment or the most recent update (i.e. amendment or revision) of CoPs developed by CCCF is shown in the Table 2 and the complete list of CoPs is provided in Appendix C.

Table 2. Length of time since codes of practice developed by CCCF were established or updated

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Number of CoPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within last 5 years (2015-2019)</td>
<td>3</td>
</tr>
<tr>
<td>&gt; 5 years (2010-2014)</td>
<td>4</td>
</tr>
<tr>
<td>&gt; 10 years (2005-2009)</td>
<td>9</td>
</tr>
<tr>
<td>&gt; 15 years (2000-2004)</td>
<td>5</td>
</tr>
<tr>
<td>&gt; 20 years (1995-1999)</td>
<td>1</td>
</tr>
<tr>
<td>&gt; 25 years (before 1995)</td>
<td>0</td>
</tr>
</tbody>
</table>

Maximum levels and codes of practice recommended for re-evaluation

25. As of December 31, 2019, 8 existing MLs (Appendix D) and 1 existing CoP (Appendix E) have been recommended by either CCCF, CAC, or a member country for re-evaluation by CCCF following their adoption, either within a certain period of time or at an unspecified future date. In these cases, the review has not been scheduled or raised as new work, despite either the re-evaluation date or a number of years having passed since the recommendation for future review. In other cases, the review date is approaching in 2020 or 2021.

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27  REP17/CF, para. 144; REP18/CF, Appendix V
28  The dates of original adoption of Codex MLs and GLs are not listed in the GSCFF and are not available elsewhere.
29  REP19/CF, para. 112
CRITERIA (TRIGGERS) FOR REVIEW OF EXISTING CODEX STANDARDS

26. The Codex Committee on Pesticide Residues (CCPR) uses a two-tiered, time-based approach (i.e. 15 and 25-year rules) to prioritize existing pesticide maximum residue limits (MRLs) for review. It is proposed that a similar approach, as outlined in paragraphs 27 and 28, be used by CCCF to prioritize existing MLs, GLs and CoPs for review.

Criteria for review of maximum levels, guideline levels and codes of practice

27. 15-year rule: Codex MLs, GLs and CoPs for food contaminants that have not been reviewed or updated for more than 15 years will be added to the “List of Contaminant Standards Established or Most Recently Updated > 15 Years Ago”. Codex standards in this list would be scheduled for review upon nomination by a member country, based on the availability of adequate new data and scientific information under the criteria headings, below (paragraphs 31 to 41).

28. 25-year rule: Codex MLs, GLs and CoPs listed in the “List of Contaminant Standards Established or Most Recently Updated > 15 Years Ago” (as outlined in paragraph 27) for 10 years without nomination by a member country will be moved to the list of standards > 25 years old and brought to the attention of CCCF.

29. The establishment of a “15-year rule” and “25-year rule”, as outlined in paragraphs 27 and 28, respectively, would not preclude ad hoc work to review Codex standards that are deemed to be of high importance from a food chemical safety perspective that may be required in response to, for example, adulteration, natural disasters, or other unforeseen environmental issues.

30. Any new data and scientific information that falls under one of the criteria headings below (paragraphs 31 to 41) would be considered by CCCF for each food and contaminant combination on a case-by-case basis, in the form of a discussion paper to be considered by the Committee. CCCF would determine for which criterion(a) new information is available, the adequacy of such information, and the magnitude or significance of the new information relative to the existing situation/knowledge base. CCCF would also consider, on a case-specific basis, the relative priority of each criterion, if new information is available for several. Criteria that give indications of a public health concern should be given highest priority. CCCF will then determine if there is sufficient adequate new data and/or scientific information to initiate a review of an existing Codex standard.

31. New occurrence data are available: Occurrence data identified by CCCF or its member countries and/or submitted to the GEMS/Food database are significantly different than that used to establish the existing ML or GL. For example, more geographically representative occurrence data are available, contaminant profiles have changed due to environmental issues (e.g. climate change, natural disasters), new plant cultivars that respond differently to contaminants are being used, and/or technological changes have resulted in improvements in agricultural and manufacturing practices.

32. New dietary exposure data are available: CCCF, JECFA, or other relevant joint FAO/WHO expert consultations recognized by CCCF develop new dietary exposure estimates or revise existing estimates that are significantly different than the previous estimates that were used to establish the existing ML or GL.

33. A new health-based guidance value (HBGV) is available: Either JECFA, upon request by CCCF, or other relevant joint FAO/WHO expert consultations recognized by CCCF develop a new HBGV, revise an existing HBGV that is significantly different than the previous HBGV that was used to establish the existing ML or GL, or withdraw an existing HBGV.

34. A new health risk assessment (HRA) is available: CCCF, JECFA, or other relevant joint FAO/WHO expert consultations recognized by CCCF present the results of a new HRA or update an existing HRA in which the conclusions are significantly different than the previous evaluation. In cases where public health concerns are identified, a review of the associated Codex standards should be prioritized.

35. Recommended for re-evaluation: CCCF, CAC, or a member country recommends the re-evaluation of Codex standards by CCCF within a specific period of time or at an unspecified future date following their adoption. Any recommended re-evaluation timelines would take precedence over the “15-year rule” and “25-year rule”, as outlined in paragraphs 27 and 28, respectively. Codex MLs and CoPs that have been recommended for future re-evaluation are listed in Appendices D and E, respectively.

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30 Procedural Manual, Risk Analysis Principles applied by the Codex Committee on Pesticide Residues, Sections 5.2.1 and 5.2.5
31 The magnitude or significance would be determined on a case-by-case basis by CCCF
32 The eWG is not aware of GLs that have been recommended for future re-evaluation
Additional criteria for review of maximum levels

36. **Codex commodity standards:** Significant revisions have been made to the commodity standards for relevant foods or food groups for which MLs are established.

37. **Codex Classification of Food and Feed (CXM 4-1989):** Significant revisions have been made to this document for relevant foods or food groups for which MLs are established.

38. **Trade disruptions:** An existing ML for a certain food and contaminant combination is responsible for disruptions in international trade.

Additional criteria for review of codes of practice

39. **Technological advances and developments:** Significant new information is available on contamination sources or processes, and/or agricultural, production and manufacturing practices related to food contaminant management and control. Information could be submitted by members or observers, available from industry or in the scientific literature, and may be described by JECFA in a new or updated contaminant monograph or evaluation.

40. **Expanded scope:** CCCF identifies that the scope of an existing CoP could readily be expanded to include other contaminants or toxins with comparable contamination sources or processes, and/or agricultural, production and manufacturing practices. For example, non-dioxin-like PCBs were included in the CoP for dioxins and dioxin-like PCBs (CXC 62-2006), which was updated to include these chemicals in 2018.

41. **Comparable CoP updated:** Updates to a CoP for a similar food or feed and contaminant combination may be transferable to another CoP or make an existing CoP redundant. In the past, updates to one CoP have not always triggered the review of comparable CoPs. For example, the CoP for aflatoxin B1 in raw materials and feedingstuffs for milk-producing animals (CXC 45-1997) was not reviewed following the updates to the CoP on mycotoxin contamination in cereals (CXC 51-2003) in 2016, which included the addition of an annex on aflatoxins. As well, neither of the above CoPs is referenced in the other. As another example, the CoP for aflatoxins in peanuts (CXC 55-2004) has not been reviewed since it was initially elaborated, yet the CoP for aflatoxins in tree nuts (CXC 59-2005) was updated in 2010 and includes information that could be also be applicable to peanuts.

PROS AND CONS OF DEVELOPING A SYSTEMATIC APPROACH TO DETERMINING THE NEED TO REVIEW EXISTING CODEX STANDARDS

42. The pros and cons associated with establishing an approach to identify if there is a need for review of existing Codex standards are provided in Table 3, in order to help determine if such an approach should be implemented by CCCF.

Table 3. Pros and cons of implementing a structured approach to Codex standard review

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standards that have been recommended for re-evaluation by CCCF, the CAC, or a member country within a certain period of time or at an unspecified future date would be tracked and the work could be scheduled, as needed</td>
<td>Significant, ongoing, resource requirements to:</td>
</tr>
<tr>
<td></td>
<td>i) Maintain the “List of Contaminant Standards Established or Most Recently Updated &gt; 15 Years Ago” and standards that meet the “25-year rule”</td>
</tr>
<tr>
<td></td>
<td>ii) Maintain a list of Codex standards that have been recommended for re-evaluation by CCCF, the CAC, or a member country within a certain period of time or at an unspecified future date</td>
</tr>
<tr>
<td></td>
<td>iii) Maintain a list of adoption dates or the dates of the most recent review of Codex standards</td>
</tr>
<tr>
<td></td>
<td>iv) Determine the availability and adequacy of new data and scientific information that would justify a full review</td>
</tr>
<tr>
<td></td>
<td>v) Review and update the standards, as required</td>
</tr>
</tbody>
</table>

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33 The magnitude or significance would be determined on a case-by-case basis by CCCF
34 REP18/CAC, Appendix III
## PROPOSED OPTIONS

43. **Option 1 – Status quo:** Existing Codex standards would continue to be reviewed on an ad hoc basis, upon nomination by member countries and/or CCCF on the basis of new and adequate data and scientific information.

44. **Option 2 – Tracking lists:** Establish tracking lists of Codex standards > 15 and > 25 years old and of standards recommended for re-evaluation by CCCF, CAC, or a member country. The review of existing Codex standards would continue on an ad hoc basis, as described in paragraph 43.

45. **Option 3 – Tracking & prioritization lists:** Establish tracking lists of Codex standards > 15 and > 25 years old and of standards recommended for re-evaluation by CCCF, CAC, or a member country. Any Codex standards meeting the “25-year rule” would be prioritized for assessment by a member country for the availability of adequate new data and scientific information in order to determine if such information is sufficient to warrant a review of the standard. If a member country does not volunteer for the assessment, the work would be assigned to a member country by CCCF or Codex Secretariat. Option 3 would help ensure that the availability of new data or scientific information is considered for all Codex MLs, GLs, and CoPs every 25 years, at a minimum. Codex standards could still be reviewed on an ad hoc basis, as described in paragraph 43.

46. Only two eWG members voted on the proposed options. Both supported Option 2, as described in paragraph 43, as it provides a structure that will help ensure that dated Codex standards are brought to the attention of CCCF while still allowing for the flexibility of ad hoc reviews. Option 2 is preferred over Option 3 as it involves fewer resource requirements and would avoid the potential challenges associated with the assignment of new work by CCCF or Secretariat in the absence of member country volunteers. One eWG member suggested that Option 2 could be implemented on a trial basis to determine if it provides benefits over the current ad hoc approach (i.e. Option 1, as described in paragraph 42).

## RECOMMENDATIONS

47. CCCF is invited to focus its discussions in the recommendations below taking into account the information and analysis provided in paragraphs 1 - 46. Additional information given in Appendices A-E can further assist Codex members and observers in the consideration of the recommendations below.

48. CCCF is invited to consider implementing Option 2, as described in paragraph 43. It is proposed that Option 2 be implemented for 3 years, after which time its effectiveness could be reviewed and discussed in 2023 by CCCF17.

49. The process by which Option 2 could be implemented and how this could be integrated with the process related to new Codex standard development is outside the scope of this discussion paper. However, a possible approach for Option 2 could involve:

i. Establishing an eWG to generate, and annually maintain, the following lists:

   a) List(s) of contaminant standards established or most recently updated > 15 and > 25 years ago.\(^{35}\)

   b) List of Codex standards that have been recommended for re-evaluation by CCCF, CAC, or a member country within a certain period of time or at an unspecified future date.

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\(^{35}\) The dates of original adoption of Codex standards could also be included in these lists. However, the original adoption dates of Codex MLs and GLs are not currently listed in the GSCFF and are not available elsewhere. This information could be researched, as resources permit, and priority given to MLs and GLs that are most heavily referenced by member countries. For MLs and GLs established before the GSTCFF, Codex commodity standards would have to be consulted for the original adoption dates.
ii. The above tracking lists would be shared with CCCF in advance of each meeting. An in-session working group at the annual CCCF meeting could summarize the current review status, if any, and make any recommendations to CCCF for review priorities from the tracking lists. CCCF would then consider how to balance these priorities with new Codex standard development.

iii. Member countries that nominate existing Codex standards for review or new Codex standards for elaboration would take the item on as new work and present their findings in the form of a discussion paper.

Appendix A: Maximum levels in GSCFF

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Food Commodity</th>
<th>Year of Adoption or Review</th>
<th>Corresponding CoP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Established &gt;20 years ago (before 2000)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acrylonitrile</td>
<td>Food</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Arsenic, total</td>
<td>Edible fats and oils</td>
<td>Prior to 1995</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Fat spreads and blended spreads</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Salt, food grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cadmium</td>
<td>Salt, food grade</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Tin, total</td>
<td>Cooked cured chopped meat</td>
<td></td>
<td>CXC 60-2005 (specific to canned foods)</td>
</tr>
<tr>
<td></td>
<td>Cooked cured ham</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cooked cured pork shoulder</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corned beef</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Luncheon meat</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Established &gt;15 years ago (between 2000-2004)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aflatoxin M₁</td>
<td>Milks</td>
<td></td>
<td>CXC 45-1997</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Cereal grains</td>
<td>2001</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Legume vegetables</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pulses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patulin</td>
<td>Apple juice</td>
<td>2003&lt;sup&gt;36&lt;/sup&gt;</td>
<td>CXC 50-2003</td>
</tr>
<tr>
<td><strong>Established &gt;10 years ago (between 2005-2009)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cadmium</td>
<td>Brassica vegetables</td>
<td>2005</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Bulb vegetables</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fruiting vegetables</td>
<td></td>
<td></td>
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<td></td>
<td>Leafy vegetables</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Root and tuber vegetables</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stalk and stem vegetables</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wheat</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cephalopods</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marine bivalve molluscs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rice, polished</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tin, total</td>
<td>Canned beverages</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Canned food (other than beverages)</td>
<td>2007</td>
<td>CXC 60-2005</td>
</tr>
</tbody>
</table>

<sup>36</sup> CCFAC 36 (2004) agreed to reconsider the ML by including it on the Priority List for Evaluation by JECFA in 4 years time (i.e. 2007) to allow for the implementation of the related CoP (ALINORM 04/27/12, paras. 130-131). In 2007, CCCF01 agreed to take patulin out of the priority list, noting that there was an existing ML and this topic was no longer considered a high priority (ALINORM 07/30/41, para. 127).
<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Food Commoditya</th>
<th>Year of Adoption or Reviewb</th>
<th>Corresponding CoP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aflatoxins, total (B&lt;sub&gt;1&lt;/sub&gt;, B&lt;sub&gt;2&lt;/sub&gt;, G&lt;sub&gt;1&lt;/sub&gt;, G&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>Almonds (destined for further processing)</td>
<td>2008</td>
<td>CXC 59-2005</td>
</tr>
<tr>
<td></td>
<td>Hazelnuts (destined for further processing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pistachios (destined for further processing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Almonds (ready-to-eat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hazelnuts (ready-to-eat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pistachios (ready-to-eat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-MCPD</td>
<td>Liquid condiments with acid-HVP</td>
<td>2008</td>
<td>CXC 64-2008</td>
</tr>
<tr>
<td>Ochratoxin A</td>
<td>Barley</td>
<td>2008</td>
<td>CXC 51-2003</td>
</tr>
<tr>
<td></td>
<td>Rye</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wheat</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Established >5 years ago (between 2010-2014)**

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Food Commoditya</th>
<th>Year of Adoption or Reviewb</th>
<th>Corresponding CoP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aflatoxins, total (B&lt;sub&gt;1&lt;/sub&gt;, B&lt;sub&gt;2&lt;/sub&gt;, G&lt;sub&gt;1&lt;/sub&gt;, G&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>Brazil nuts (destined for further processing)</td>
<td>2010</td>
<td>CXC 59-2005</td>
</tr>
<tr>
<td></td>
<td>Brazil nuts (ready-to-eat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melamine</td>
<td>Food (other than infant formula) and feed</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Powdered infant formula</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arsenic, total</td>
<td>Natural mineral waters</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Natural mineral waters</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Lead</td>
<td>Natural mineral waters</td>
<td>2011</td>
<td>CXC 56-2004 (update in progress)</td>
</tr>
<tr>
<td>Mercury, total</td>
<td>Natural mineral waters</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Aflatoxins, total (B&lt;sub&gt;1&lt;/sub&gt;, B&lt;sub&gt;2&lt;/sub&gt;, G&lt;sub&gt;1&lt;/sub&gt;, G&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>Dried figs</td>
<td></td>
<td>CXC 65-2008</td>
</tr>
<tr>
<td>Lead</td>
<td>Meat and fat of poultry</td>
<td>2012</td>
<td>CXC 56-2004 (update in progress)</td>
</tr>
<tr>
<td></td>
<td>Meat of cattle, pigs, sheep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melamine</td>
<td>Liquid infant formula</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Hydrocyanic acid</td>
<td>Cassava flour</td>
<td>2013</td>
<td>CXC 73-2013</td>
</tr>
<tr>
<td></td>
<td>Gari</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>Cereal grains</td>
<td></td>
<td>CXC 56-2004 (update in progress)</td>
</tr>
<tr>
<td></td>
<td>Milks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arsenic, inorganic</td>
<td>Rice, polished</td>
<td></td>
<td>CXC 77-2017</td>
</tr>
<tr>
<td>Fumonisins (B1, B2)</td>
<td>Maize flour/meal</td>
<td></td>
<td>CXC 51-2003</td>
</tr>
<tr>
<td></td>
<td>Raw maize grain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>Bulb vegetables</td>
<td>2014</td>
<td>CXC 56-2004 (update in progress)</td>
</tr>
<tr>
<td></td>
<td>Fruits</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infant formula</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leafy vegetables</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Root and tuber vegetables</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary milk products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contaminant</td>
<td>Food Commodity&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Year of Adoption or Review&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Corresponding CoP</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>---------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td><strong>Established within last 5 years (2015-2019)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deoxynivalenol</td>
<td>Wheat maize and barley milling fractions&lt;br&gt;Infant cereals&lt;br&gt;Wheat, maize, and barley cereal grains</td>
<td></td>
<td>CXC 51-2003</td>
</tr>
<tr>
<td>Lead</td>
<td>Berries and other small fruits&lt;br&gt;Brassica vegetables&lt;br&gt;Canned fruits&lt;br&gt;Canned vegetables&lt;br&gt;Cranberry&lt;br&gt;Currants&lt;br&gt;Elderberry&lt;br&gt;Fruit juices&lt;br&gt;Fruiting vegetables&lt;br&gt;Legume vegetables</td>
<td>2015</td>
<td>CXC 56-2004 (update in progress)</td>
</tr>
<tr>
<td>Arsenic, inorganic</td>
<td>Rice, husked</td>
<td>2016</td>
<td>CXC 77-2017</td>
</tr>
<tr>
<td>Lead</td>
<td>Pickled cucumbers&lt;br&gt;Table olives&lt;br&gt;Canned chestnuts/purée&lt;br&gt;Fish&lt;br&gt;Fruit juices obtained exclusively from berries and other small fruits&lt;br&gt;Jams, jellies and marmalades&lt;br&gt;Preserved tomatoes&lt;br&gt;Pulses</td>
<td>2017</td>
<td>CXC 56-2004 (update in progress)</td>
</tr>
<tr>
<td>Aflatoxins, total (B&lt;sub&gt;i&lt;/sub&gt;, B&lt;sub&gt;2&lt;/sub&gt;, G&lt;sub&gt;i&lt;/sub&gt;, G&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>Peanuts (destined for further processing)</td>
<td></td>
<td>CXC 55-2004</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Chocolate (≥70% total cocoa solids)&lt;br&gt;Chocolate (≥50 to &lt;70% total cocoa solids)</td>
<td></td>
<td>In development</td>
</tr>
<tr>
<td>Lead</td>
<td>Edible fats and oils&lt;br&gt;Fat spreads and blended spreads&lt;br&gt;Grape juice&lt;br&gt;Mango chutney&lt;br&gt;Mushrooms&lt;br&gt;Salt, food grade</td>
<td>2018</td>
<td>CXC 56-2004 (update in progress)</td>
</tr>
<tr>
<td>Methylmercury</td>
<td>Alfonsino&lt;br&gt;Marlin&lt;br&gt;Shark&lt;br&gt;Tuna</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Lead</td>
<td>Cattle, edible offal of&lt;br&gt;Fortified/liqueur wine&lt;br&gt;Pig, edible offal of&lt;br&gt;Poultry, edible offal of&lt;br&gt;Wine</td>
<td>2019</td>
<td>CXC 56-2004 (update in progress)</td>
</tr>
</tbody>
</table>

<sup>a</sup> - refer to GSCFF for specific exclusions and other details; <sup>b</sup> - refers to year the ML was most recently reviewed by CCCF; based on the results of the assessment, the ML value was either retained, as is, or updated in the GSCFF.
## Appendix B: Guideline levels in the GSCFF

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Food Commodity*</th>
<th>Year of Adoption or Reviewb</th>
<th>Corresponding Codex CoP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established &gt;20 years ago (before 2000)</td>
<td>Vinyl chloride monomer</td>
<td>Food</td>
<td>Prior to 1995</td>
</tr>
<tr>
<td>Established &gt;5 years ago (between 2010-2014)</td>
<td>Radionuclides</td>
<td>Infant foods</td>
<td>2013</td>
</tr>
<tr>
<td></td>
<td>Radionuclides</td>
<td>Foods other than infant foods</td>
<td>2013</td>
</tr>
</tbody>
</table>

* - refer to GSCFF for specific exclusions and other details; b - refers to year the ML was most recently reviewed by CCCF; based on the results of the assessment, the ML value was either retained, as is, or updated in the GSCFF
Appendix C: Codes of Practice Developed by CCCF

<table>
<thead>
<tr>
<th>Code of Practice</th>
<th>Document No.</th>
<th>Year Established (Updated)</th>
<th>Corresponding Codex ML(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Established &gt;20 years ago (before 2000)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction of Aflatoxin B1 in Raw Materials and Supplemental Feedingstuffs for Milk-Producing Animals</td>
<td>CXC 45-1997</td>
<td>1997</td>
<td>Yes (for aflatoxin M1 in milks)</td>
</tr>
<tr>
<td><strong>Established &gt;15 years ago (between 2000-2004)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concerning Source Directed Measures to Reduce Contamination of Foods with Chemicals</td>
<td>CXC 49-2001</td>
<td>2001 (2012)</td>
<td>N/A</td>
</tr>
<tr>
<td>Prevention and Reduction of Patulin Contamination in Apple Juice and Apple Juice Ingredients in Other Beverages</td>
<td>CXC 50-2003</td>
<td>2003</td>
<td>Yes</td>
</tr>
<tr>
<td>Prevention and Reduction of Aflatoxin Contamination in Peanuts</td>
<td>CXC 55-2004</td>
<td>2004</td>
<td>Yes</td>
</tr>
<tr>
<td>Prevention and Reduction of Lead Contamination in Foods</td>
<td>CXC 56-2004</td>
<td>2004 (updates in progress)</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Established &gt;10 years ago (between 2005-2009)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevention and Reduction of Inorganic Tin Contamination in Canned Foods</td>
<td>CXC 60-2005</td>
<td>2005</td>
<td>Yes</td>
</tr>
<tr>
<td>Prevention and Reduction of Ochratoxin A Contamination in Wine</td>
<td>CXC 63-2007</td>
<td>2007</td>
<td>No</td>
</tr>
<tr>
<td>Prevention and Reduction of 3-MCPD during the Production of Acid-HVPs and Products that Contain Acid-HVPs</td>
<td>CXC 64-2008</td>
<td>2008</td>
<td>Yes</td>
</tr>
<tr>
<td>Prevention and Reduction of Aflatoxin Contamination in Dried Figs</td>
<td>CXC 65-2008</td>
<td>2008</td>
<td>Yes</td>
</tr>
<tr>
<td>Prevention and Reduction of Acrylamide in Foods</td>
<td>CXC 67-2009</td>
<td>2009</td>
<td>No</td>
</tr>
<tr>
<td>Prevention and Reduction of Contamination of Food with PAHs from Smoking and Direct Drying Processes</td>
<td>CXC 68-2009</td>
<td>2009</td>
<td>No</td>
</tr>
<tr>
<td>Prevention and Reduction of Ochratoxin A Contamination in Coffee</td>
<td>CXC 69-2009</td>
<td>2009</td>
<td>No</td>
</tr>
<tr>
<td><strong>Established &gt;5 years ago (between 2010-2014)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevention and Reduction of Ethyl Carbamate Contamination in Stone Fruit Distillates</td>
<td>CXC 70-2011</td>
<td>2011</td>
<td>No</td>
</tr>
<tr>
<td>Prevention and Reduction of Ochratoxin A Contamination in Cocoa</td>
<td>CXC 72-2013</td>
<td>2013</td>
<td>No</td>
</tr>
<tr>
<td>Prevention and Reduction of Hydrocyanic Acid (HCN) in Cassava and Cassava Products</td>
<td>CXC 73-2013</td>
<td>2013</td>
<td>Yes</td>
</tr>
<tr>
<td>Prevention and Reduction for Weed Control to Prevent and Reduce Pyrrolizidine Alkaloid Contamination in Food and Feed</td>
<td>CXC 74-2014</td>
<td>2014</td>
<td>No</td>
</tr>
<tr>
<td><strong>Established within last 5 years (2015-2019)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevention and Reduction of Arsenic Contamination in Rice</td>
<td>CXC 77-2017</td>
<td>2017</td>
<td>Yes</td>
</tr>
<tr>
<td>Prevention and Reduction of Mycotoxins in Spices</td>
<td>CXC 78-2017</td>
<td>2017</td>
<td>No (work is ongoing)</td>
</tr>
<tr>
<td>Reduction of 3-MCPDEs and GE’s in Refined Oils and Food Products Made with Refined Oils</td>
<td>CXC 79-2019</td>
<td>2019</td>
<td>No</td>
</tr>
</tbody>
</table>
Appendix D: Maximum levels recommended for re-evaluation by CCCF, CAC, or a Member Country where the re-evaluation is outstanding or upcoming

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Food</th>
<th>Comments</th>
<th>Reference</th>
<th>Years since ML Established</th>
<th>Year Recommended for Review*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>Milk</td>
<td>CCCF noted that the ML might be reviewed in future when new data became available and might be revised in light of the review of the MLs for milk products</td>
<td>REP13/CF para. 29</td>
<td>6</td>
<td>Not specified</td>
</tr>
<tr>
<td>Lead</td>
<td>Cereal grains</td>
<td>CCCF noted that if different MLs would be considered for cereal grains in future, stricter MLs could be applied to certain cereal grains in light of available data</td>
<td>REP13/CF para. 29</td>
<td>6</td>
<td>Not specified</td>
</tr>
<tr>
<td>Lead</td>
<td>Table olives</td>
<td>CCCF agreed to lower the ML from 1 mg/kg to 0.4 mg/kg and to re-evaluate in the future when more data became available</td>
<td>REP16/CF para. 77</td>
<td>3</td>
<td>Not specified</td>
</tr>
<tr>
<td>Lead</td>
<td>Jams, jellies,</td>
<td>CCCF agreed to lower the ML to 0.4 mg/kg and to re-evaluate in the future when more data became available</td>
<td>REP17/CF para. 61</td>
<td>2</td>
<td>Not specified</td>
</tr>
</tbody>
</table>
| Deoxynivalenol    | Cereals and cereal-based products | CCCF decided to proceed with the establishment of MLs and indicated that at CCCF08 (2014) it would consider the extension of the MLs to acetylated derivatives of DON  
CCCF agreed that when further information became available on occurrence and an internationally validated method, MLs for acetylated derivatives of DON could be considered | REP11/CF para. 41 REP 14/CF paras. 61-62 | 4                           | Not specified                |
| Fumonisins        | Maize flour & maize meal | CCCF agreed that the ML of 2000 μg/kg for maize flour and maize meal would be advanced for adoption by the CAC with the understanding that an exposure and impact assessment should be undertaken by JECFA within three years for reconsideration of the ML.  
JECFA83 (2016) updated its exposure assessment and reviewed toxicological and epidemiological studies available since its previous 2011 evaluation. The previously established group PMTDI was retained and limited ne occurrence data were available since 2011 for all regions except Europe.  
CCCF called upon other regions (Africa, SE Asia, Eastern Mediterranean) to provide data to GEMS/Food on fumonisin levels in maize. | REP14/CF para. 71 JECFA/83/SC REP17/CF para. 151 | 6                           | 2017                         |
<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Food</th>
<th>Comments</th>
<th>Reference</th>
<th>Years since ML Established</th>
<th>Year Recommend ed for Review*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inorganic arsenic</td>
<td>Husked rice</td>
<td>CAC adopted the ML for husked rice on the understanding that the ML would be reviewed by CCCF three years after the CoP (CXC 77-2017) was finalized</td>
<td>REP16/CAC paras. 63, 65</td>
<td>3</td>
<td>2020</td>
</tr>
<tr>
<td>Methylmercury</td>
<td>Tuna</td>
<td>CAC adopted the proposed MLs and agreed that CCCF could consider revising the ML for tuna in the light of additional data after three years</td>
<td>REP18/CAC para. 39</td>
<td>2</td>
<td>2021</td>
</tr>
</tbody>
</table>

*could represent the year that the item is brought forward for new work to CCCF, and not necessarily the year the review should be initiated

**Appendix E: Codes of practice recommended for re-evaluation by CCCF, CAC, or a Member Country where the re-evaluation is outstanding or upcoming**

<table>
<thead>
<tr>
<th>Code of Practice</th>
<th>Comments</th>
<th>Reference</th>
<th>Years since CoP Established</th>
<th>Year Recommend ed for Review*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention and Reduction of Arsenic Contamination in Rice (CXC 77-2017)</td>
<td>CCCF agreed to continue work on the finalization of the COP and stated that the COP could be reviewed in future when more information and data became available. A delegation indicated that results of several studies would be available in 2019 and there would be a need to revise the COP when the results become available</td>
<td>REP16/CF para. 99</td>
<td>3</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td></td>
<td>REP17/CF para. 102</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*could represent the year that the item is brought forward for new work to CCCF, and not necessarily the year the review should be initiated
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