GFORSS | GLOBAL FOOD REGULATORY SCIENCE SOCIETY

SW Pacific CODEX

ANALYSIS OF AGENDA ITEMS IN PREPARATION FOR THE 53rd SESSION OF CODEX COMMITTEE ON FOOD HYGIENE (CCHF53)

November 29 – December 2nd and December 8th, 2022

San Diego, California, United States

- AGENDA ITEM 6: Proposed Draft Guidelines for the Safe Use and Reuse of Water in Food Production and Processing at Step 4
- AGENDA ITEM 7: Discussion paper on revision of the Guidelines on the Application of General Principles of Food Hygiene to the Control of Pathogenic Vibrio Species in Seafood
- AGENDA ITEM 8: Discussion paper on revision of the Guidelines on the Application of General Principles of Food Hygiene to the Control of Viruses in Food

Objectives

This document offers an analysis of agenda items to support participation to the 53rd session of the Codex Committee on Food Hygiene (CCFH53), taking place in November 2022. The document is intended for possible use by the Codex communities of practice promoted by GFoRSS, as part of their contribution to enhancing awareness and supporting effective participation in international food standard setting meetings (Codex meetings) by representatives from members and observers, in particular in **the South-West Pacific and Asia Regions**

The analysis provided in this document offers a factual review of agenda items, their background and a discussion of some considerations. This analysis is indicative in nature and does not represent an official position of the authors or the organizations they represent, their membership or their management.

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**It is important to note that experts – members of the Expert Working Group (EWG) – do not represent the organizations and / or jurisdictions to which they are affiliated. The selection and participation in the EWG proceedings is based on each expert's own credentials and experience which should not be misconstrued as the country's / delegation's / organization's position to which they belong.*

Agenda Item 6: Proposed Draft Guidelines for the Safe Use and Reuse of Water in Food Production and Processing at Step 4

Documents: CX/FH 22/53/6

Background

CCFH51 agreed to take on new work on Guidelines for the Safe Use and Reuse of Water in Food Production, and an EWG chaired by Honduras was established. A draft was started but it was indicated that scientific advice from JEMRA was essential for the development of the guidelines. CCFH52 did not discuss the draft guidelines but provided feedback on specific terminology and requested scientific advice from JEMRA. It was agreed that a Physical Working Group would meet in conjunction with CCFH53 to consider comments received at Step 3.

The EWG was formed by participants from 35 Codex Members and 7 Observers. The draft presented in Appendix I of CX/FH 22/53/6 has been through **one round of comments** (General Section: comments from 16 countries and 2 observers; Fresh Produce Annex: comments from 13 countries; Fishery Products Annex: comments from 11 countries), which were addressed by the Co-Chairs. Bilateral meetings with JEMRA were also conducted. A third Annex, on dairy products, could be developed by an EWG if approved at CCFH53.

Comments

Water, and particularly potable water, is a limited resource in the world. The development of a Codex guidance as presented in Appendix I of CX/FH 22/53/6 is of **great need**. In particular, the application of a risk-based approach to the safe use and reuse of water (Para 7) is welcomed and would allow for an efficient use of this valuable resource. However, enhanced guidance on the steps and structure of this risk-based approach as well as an on the fishery products annex would strengthen the document.

Specific comments on the draft presented in Appendix I of CX/FH 22/53/6 include:

- Para 13:

  Options being Considered:

  Option 1: [Water fit for purpose]: water that is determined to be safe for an intended purpose through an assessment of potential hazards, treatment options and their efficacy, control measures, history of use, and the end use of the food product.]

  Option 2: [Water fit for purpose]: water which is determined to be safe for an intended purpose through a water **risk assessment.]**

  Our expert team considers Option 2 to be more precise, however, it would need to be coupled with an enhanced definition of "water risk assessment" and "Water risk assessment" seems more appropriate than "water risk analysis" in this context, since the results of this assessment would then be used to inform risk management decisions (e.g., as noted in Para 15) and likely also risk communication.

  An enhanced definition of "water risk assessment" should include the steps / structure used in this process and could be combined with the definition of "risk assessment" currently in the draft, if all these steps (i.e., hazard identification, hazard characterization, exposure assessment, risk characterization) are indeed referred to in the rest of the document – which is currently not the case.

- Other definitions that could be included, which correspond to terms used in the document include: risk profile (Para 15), passive management (Figure 1), active management (Figure 1), fit for purpose.
- Para 17: "appropriate parameters" could be more precise or include more guidance, as provided for the frequency of monitoring and verification.
- Para 19: could clarify that this document only discusses the 1st and 2nd bullet points, and could add a reference for the 3rd bullet point for readers interested in conducting a QMWRA.
- Para 22: chemical hazards are out of the scope of this document; however, they could be mentioned here along with microbiological and physical hazards.

- Para 23: an example of such a matrix or a reference where such an example is provided would be useful.

Annex 1 Fresh produce

- This Annex is very useful and informative. The sections on "Water for irrigation (including greenhouses)" and "Harvest and Post-Harvest use of water – General" are very clear.
- Para 34 raises a very important point. In various regions of the world, however, regulatory requirements for the use of biocides are not always available.
- Para 34: The use of biocides to maintain the microbiological quality of process water should comply with the requirements established by the competent authority and should be validated for efficacy. Biocides should never replace GHPs but be used in addition to GHPs and where necessary to minimize post-harvest cross contamination with biocide levels monitored, controlled and recorded to ensure the maintenance of effective concentrations. The application of biocides should be followed by rinsing as necessary to ensure that chemical residues do not exceed levels established by the competent authority using overhead spray, not by an immersion tank without cross-contamination attention.
- Para 51: consumption data and pathogen transfer rates from water to produce should be mentioned, as they are essential for accurate quantitative risk assessment. This could be achieved through citing a Codex document or other reference on quantitative microbiological risk assessment.
- Para 58 (Figure):
    - Question 1, answer = Yes: should clarify that no water testing is required provided that the water used is fit for purpose.
    - Need to define "FFV" (Fresh Fruit and Vegetables)
    - Question 2, answer = Yes, water source = (treated) wastewater: need to provide direction for cases where there are no national standards.
- Para 63, 2nd and 3rd bullet points refer to mitigation options in Para 60 – However, there are no mitigation options listed in Para 60.

Annex II Fishery products

This Annex is relevant and necessary; however, it could be further enhanced. For example, it mainly focuses on processing, but water use and reuse in other contexts (e.g., aquaculture, as noted in Para 4) should also be addressed.

- Para 12: it would be important to provide more guidance on the "risk-based approach"
- Para 21, Figures 1-3: the information presented in the decision trees and accompanying text is useful and needed; however, clarity could be improved both in the graphics as well as in the way the decision tree is explained in the text. Perhaps most of the information could be incorporated within the decision trees with only brief text explanations.

Para 22, 3rd bullet point: it is not clear **how the risk assessment should be conducted**. If this is not to be included in the scope of the document, adding an external reference could be useful.

Para 23: could include more guidance on what is required for validation.

Recommendations

Based on the evaluation of the Codex Outreach Initiative Experts, while the draft text is taking shape, it is not at a stage where it would qualify for adoption as a draft standard at Step 5.

More discussions may still be warranted during the committee meetings.

Unless such discussions happen thoroughly during the upcoming session, it is recommended that the proposed draft (Appendix I of CX/FH 22/53/6) remains at Step 4 for further discussions at CCFH.

Agenda Item 7: Discussion paper on revision of the *Guidelines on the Application of General Principles of Food Hygiene to the Control of Pathogenic Vibrio Species in Seafood*

Documents: CXG 73-2010 and CX/FH 22/53/

Background

Japan and New Zealand prepared a *Discussion Paper on Revision of the Guidelines on the Application of General Principles of Food Hygiene to the Control of Pathogenic Vibrio Species in Seafood* (CX/FH 22/53/7), considering the scientific advice provided in *Advances in science and risk assessment tools for Vibrio parahaemolyticus and V. vulnificus associated with seafood: meeting report* (MRA 35) – a report of a JEMRA meeting **conducted in 2019** and published in 2021. The discussion paper outlines specific sections of CXG 73-2010 that could be updated (Appendix 1 of CX/FH 22/53/7) based on new information provided in MRA 35, and proposes a project document (Appendix 2 of CX/FH 22/53/7) to guide the revision of CXG 73-2010, for consideration by CCFH53.

Comments

This discussion paper **raises relevant points that would enhance the existing Guidelines** (CXG 73-2010). Indeed, the information provided in MRA35, especially the **updated risk assessment models for *V. parahaemolyticus* and *V. vulnificus*** would help support risk management strategies.

For scientific accuracy and to better inform risk managers, it is also important to update CXG 73-2010 to reflect enhanced understanding of the dose-response relationship of different strains (i.e., not only high numbers of viable cells can lead to infection).

Regarding control measures, enhanced guidance **on time-temperature parameters**, both pre- and post-harvest (as noted in Para 10, Para 28 and Section 5.2.1), as well as on the safe use and reuse of water (as noted in Para 25 and Section 5.5), would be greatly beneficial.

Enhanced guidance could also include specific considerations for farmed fish / seafood – a sector that has seen increased popularity in various parts of the World.

Of particular interest, **it would be important to consider the addition of enhanced information on *V. cholerae*** in CXG 73-2010.

Environmental conditions (especially considering climate change), inadequate sanitation facilities, consumption habits and insufficient control measures make the several regions of the world more vulnerable to cholera epidemics.

Recommendations

It is recommended that delegations consider supporting the approval of the new work recommended in CX/FH 22/53/7 to revise CXG 73-2010.

Agenda Item 8: Discussion paper on revision of the *Guidelines on the Application of General Principles of Food Hygiene to the Control of Viruses in Food*

Documents: CXG 79-2012 and CX/FH 22/53/8

Background

As agreed at CCFH51, a *Discussion Paper on Revision of the Guidelines on the Application of General Principles of Food Hygiene to the Control of Viruses in Food* was prepared by Canada, with support from the Netherlands (CX/FH 22/53/8).

This work aimed at outlining and assessing new information on food viruses, which may be considered in a revised version of the Guidelines (**CXG 79-2012**). The elements identified in the discussion paper as potential additions to the Guidelines include:

- Hepatitis E virus (HEV), as HEV cases have been increasing in some countries and outbreaks linked to undercooked pork liver have been reported. Specifically, guidelines on prevention and intervention measures

for genotypes HEV-3 and HEV-4, which are transmitted through zoonotic and foodborne pathways, may be needed.

- Additional relevant food commodities, **notably, frozen produce**.
- Information on the efficacy of interventions on the control of viruses (e.g., heat treatment, high-pressure, cold plasma, disinfection, food handler hygiene).
- Advances in analytical methods for the detection and quantification of enteric viruses.
- Improved guidance on the control of hepatitis A virus (HAV) and norovirus (NoV) in bivalve molluscs. Specifically, enhanced guidance on the surveillance of water quality of growing areas and the use of viral indicators or other indicators of contamination would be of interest.
- Criteria on the required water quality to prevent contamination of fresh produce. These criteria should consider CCFH work on the draft *Guidelines for the safe use and reuse of water in food production* and JEMRA meeting reports on the prevention and control of microbiological hazards in fresh fruits and vegetables.
- A review of available risk assessment models (e.g., joint United States-Canada risk assessment on NoV in bivalve molluscan shellfish), aiming at developing more applicable models for wider use among member countries, including a **simplified risk calculator**.

Comments

The significance of viruses on the incidence of foodborne illness around the world has gained recognition in recent years.

New agents and new vehicles of infection have been identified, as well as new approaches for detection and quantification.

This discussion paper raises **relevant points that would enhance the existing Guidelines** (CXG 79-2012). Among the items identified, additional guidance on control measures targeting HEV and on the surveillance and requirements of water quality are of particular interest to many countries. Indeed, the occurrence of HEV cases – as well as other viral infections – has increased in the region in recent years. Although HEV infection vehicles have not been clearly identified, **produce contamination via water is suspected** (considering that pork consumption is rare in the region).

The establishment of water quality criteria and the use of **viral indicators** would therefore offer valuable information to support regional programs targeting water quality surveillance.

Recommendations

Experts of the Codex Outreach Initiative consider that the information presented in CX/FH 22/53/8 offers an excellent rationale to warrant a revision of CXG 79-2012.

It is recommended that codex delegations at CCFH support the development of new work in this direction i.e. to initiate the review of CXG 79-2012.