



JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX ALIMENTARIUS COMMISSION

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NEW FOOD SOURCES AND PRODUCTION SYSTEMS: NEED FOR CODEX ATTENTION AND GUIDANCE?

(Prepared by FAO and WHO)

1. FAO and WHO are looking at a number of emerging issues affecting agri-food systems with relevance to food safety and quality, including new food sources and production systems. With this short document, FAO/WHO would like to draw Codex's attention to these issues, and, if there is Members' interest, seek CCEXEC's advice on:

- mechanisms through which FAO/WHO can share these topics of interest with relevant Committees;
- modalities to consider how further work could be initiated and taken up by Codex on these cross-cutting issues;
- processes that would allow Codex to holistically evaluate and prioritize potential need for actions on these cross-cutting issues.

Background

2. An increasing recognition of the challenges related to feeding a growing global population, and at the same time producing food more sustainably, is spurring food system innovations which are shaping our future agri-food landscape. Some of these 'game-changing' technologies are already under various stages of development across the world, making it critical to objectively assess the benefits they might bring as well as any risks associated with them - including food safety and quality concerns. One such emerging area is "new foods and production systems" (NFPS), an area that is already growing fast and it is very likely to grow even more over time.

3. For the purpose of facilitating future discussions around this topic, new foods denote those that have not been widely consumed either because they have recently emerged into the global retail space thanks to technological innovations, or because their consumption has been historically restricted to specific regions in the world. Such foods are also considered 'new' within the framework of existing Codex standards. New food production systems reflect novel innovations or advancements in pre-existing food technologies that help to produce some of the new foods under discussion.

4. FAO has been tracking a number of emerging opportunities and challenges affecting agri-food systems with relevance to food safety through the FAO foresight¹ programme. Food safety and quality concerns associated with NFPS must be given due consideration as they may not only have implications for public health, but also on regulatory frameworks and trade. Some of the more prominent topics within NFPS that were identified are listed below:

- Seaweed
- Microalgae

¹ Foresight is a forward-thinking and structured approach for gathering and interpreting intelligence, which can be used for the development of proactive strategies to identify and address emerging issues. Foresight-based approaches are gaining prominence as early identification, evaluation and prioritization of medium to long -term issues are important components of the food safety decision-making process.

- Edible insects
- Cell culture-based food products (meat, fish, dairy)
- Plant-based protein alternatives
- 3-D printed foods

5. While technologies by themselves are not always transformative, these innovations are appearing at a time when a multitude of different conditions – socio-economic and environmental factors, consumer attitudes, political contexts – are propelling their further development. Moreover, the area of NFPS is increasingly coming under the media spotlight, highlighting this growing trend and drawing the attention of consumers globally. In keeping abreast of these advances and to raise awareness of both the benefits and risks associated with them, FAO has been working on some of these areas – most recently for example through a report on food safety aspects of edible insects ([‘Looking at edible insects from a food safety perspective. Challenges and opportunities for the sector’](#)) and an upcoming report on food safety and regulatory aspects of seaweed ‘*Food safety in seaweed: current status and future perspectives*’. Another publication that speaks to the FAO foresight approach in food safety with overviews of some of the major areas of interest identified, is also being developed.

6. Both in the FAO and WHO Food Safety strategies that are currently under development, the importance of identifying and evaluating impacts arising from global changes and of adapting risk management options to emerging food safety risks are highlighted. Disease surveillance systems and food borne disease outbreak investigations will need to identify these new potential sources of food safety risks in order for food safety authorities to take appropriate risk management actions to protect public health.

Need for international standards/guidance for emerging areas in agri-food systems

7. Currently the expansion of research by the burgeoning NFPS sector and the growing interest among consumers outpaces the development of harmonized regulatory frameworks needed to govern such areas. This is most definitely a gap that needs attention. In order to safeguard the health of consumers globally and to keep Codex current and relevant, it is important to address these emerging issues and innovations, and facilitate the development of appropriate guidance at the international level. Such an endeavour is well in line Strategic Goal 1 under the Codex Strategic Plan 2020-2025². However, there is currently a lack of designated space to discuss such emerging issues within the Codex system as their cross cutting nature extends beyond the mandate of any single existing Commodity or General Subject Committee.

8. FAO and WHO will continue to monitor the horizon for emerging issues affecting food safety and quality, and work to make sure that they are ready to face such new and diverse opportunities and challenges ahead. While recognizing the need to address these emerging issues in a prioritized manner, FAO and WHO believe that topics like new food sources and production systems will benefit from attention at the Codex level and therefore ask the CCEXEC to consider this matter and provide further guidance on future steps.

9. It may be a matter of time before the word ‘new’ is dropped from the term NFPS and such food products and production systems become more available and mainstream. It is therefore important for Codex to be proactive and “*future-proof*” ensuring that it continues to contribute towards the global public good.

10. FAO and WHO remain available for further support and engagement in this area.

² Codex Strategic Plan <http://www.fao.org/3/ca5645en/CA5645EN.pdf>