

APPENDIX VII

PROJECT DOCUMENT
PROPOSAL FOR NEW WORK
Development of a Code of practice for the prevention and reduction of
mycotoxins contamination in cassava and cassava-based products

1. Purpose and scope of the new work

The purpose of the proposed new work is to develop a Code of Practice (CoP) that will provide risk management guidance to Codex member countries and relevant stakeholders, e.g. farmers, cassava-based industries (including small-scale producers), national/regional technical/regulatory agencies, etc., for the prevention/reduction of mycotoxins, i.e. aflatoxins and ochratoxin A (OTA), contamination in cassava and cassava-based products during pre-planting, planting, post-harvest processing including fermentation, drying, storing and distribution.

2. Relevance and timeliness

Aflatoxins are known hepatotoxins causing the death of people and have been documented as naturally occurring carcinogens, which are primarily associated with high incidence of liver cancer. Aflatoxin B1 has particularly been identified as causative factor in the development of hepatocellular carcinoma, an emerging chronic disease of global concern.

The toxicity of OTA has been reviewed by the International Agency for Research on Cancer (IARC), which classified OTA as a possible human carcinogen (Group 2B) and also by the Joint FAO/WHO Expert Committee on Food Additives (JECFA). OTA is a mycotoxin that occurs naturally worldwide in food commodities including roots and tubers and their products. In roots and tubers, fusarium species have been implicated as pre-harvest contaminants mycotoxins, while aspergillus and penicillium species have been implicated as post-harvest mycotoxins.

Discussion papers considered by the Codex Committee on Contaminants in Foods (CCCF) have described the fast growing global profile of cassava, a root crop commodity commonly used as food, raw material for human foods, animal feeds, pharmaceutical and confectionary industries. The obvious significance in export trade, especially in regional trade such as amongst members of the FAO/WHO Coordinating Committee for Africa (CCAFRICA) is worthy to note. The health impact of aflatoxins and OTA in cassava and cassava-based products was considered by CCCF13 (2019) (CX/CF 19/13/14). Summary of data from a WTO/FAO/WHO supported regional total diet study involving four sub-Saharan African countries amongst others, showed that aflatoxins and OTA contamination in cassava is of public health concern.

The CoP will assist countries to comply with measures and protocols to prevent/reduce aflatoxins and OTA contamination in cassava and cassava-based products which will in turn facilitate trade. Given the health concerns, there is need for cassava to be safe for use and consumption; and good practices in agriculture, processing and distribution will help in achieving this goal.

3. Main aspects to be covered

The CoP will cover the value chain stages of:

1. land preparation,
2. cultivation,
3. pre-harvest,
4. post-harvest handling,
5. storage
6. transportation practices

4. Assessment against the criteria for the establishment of work priorities***General criterion***

This is for consumer health protection and to prevent/reduce post-harvest losses through best practices from the point of view of food safety and food security. This is also to ensure fair practices in trade while taking into account the identified needs of developing countries.

The CoP will provide risk management guidance for countries and relevant stakeholders to improve the overall safety and quality of cassava and cassava-based products, by preventing/reducing aflatoxins and OTA contamination, and so to minimize consumer dietary exposure to aflatoxins and OTA from roots/tubers and their products and to enhance trade in these products.

Specific criteria

a. Diversification of national legislations and apparent resultant or potential impediments to international trade

The CoP will provide internationally harmonized risk management practices to Codex members and stakeholders for the prevention/reduction of aflatoxins and OTA contamination in cassava and cassava-based products to ensure public health and fair practices in trade.

b. Scope of work and establishment of priorities between the various sections of the work

See points 1 and 3.

c. Work already undertaken by other organizations in this field

CCCF is the subsidiary body of the Codex Alimentarius Commission (CAC) having competence on the provision of risk management practices along the food chain to contain contamination of food and food products with chemicals and toxins. A way to do this is through the development of codes of practice. There is already in existence a *Code of practice for the reduction of hydrocyanic acid (HCN) in cassava and cassava products* (CXC 73-2013) to assist in keeping the quality and safety of these products.

As per mycotoxins, some work has also been done by organizations or agencies, for instance, the International Institute of Tropical Agriculture, National Root Crops Research Institute Umudike South-East, Nigeria and Universities in the rain forest belts in Nigeria on management of mycotoxins in roots and tubers. The African Union (AU), through its Partnership for Aflatoxin Control in Africa (PACA platform), is driving eradication of adverse human health effects by aflatoxins from the continent.

However, there is currently no ~~currently an~~ international document that assemble relevant risk management practices available to date into a single document which best reflect effective measures applicable worldwide to contain mycotoxin contamination in fresh and processed cassava for application by Codex members and relevant stakeholders. This CoP will so build on work of recognized organizations, agencies and technical programs/platforms across the world to provide such a unique single internationally harmonized guidance document for use by countries and other stakeholders.

5. Relevance to Codex Strategic Goals

The new work falls under the following Codex Strategic Goals of the Codex Strategic Plan 2020-2025:

Goal 1: Address current, emerging and critical issues in a timely manner

Aflatoxin and OTA contamination in cassava and cassava-based products is a public health concern. Given that cassava or cassava-based products are considered staple food in certain regions and countries, there is need for cassava to be safe for use and consumption. In addition, trade in cassava and its products are growing and therefore, there is also need to ensure safe and fair practices in trade.

This work will harmonize risk management practices across regions/countries to promote maximum application of Codex standards to protect consumers' health and to ensure fair practices in trade. The result of this work will also assist in promoting sound regulatory frameworks in international trade by using good management practices that are proven to be effective and applicable worldwide to prevent/reduce aflatoxins and OTA contamination in these products.

Goal 2: Develop standards based on science and Codex risk analysis principles

This work will help in identifying risk management options and developing strategies to prevent/reduce aflatoxins and OTA in cassava production and processing based on science and risk-based principles.

6. Information on the relationship between the proposal and other existing Codex documents

Currently there is no Codex document addressing mycotoxin contamination in cassava and cassava-based products. The development of the CoP will support implementation of commodity standards available for fresh and processed cassava e.g. Codex Standards for Sweet Cassava (CXS 238-2003), Bitter Cassava (CXS 300-2010), Cassava Flour (CXS 176-1989), Gari (CXS 151-1985), etc. as well as will complement the CoP to contain HCN in cassava and cassava-based products.

7. Identification of any requirement for and availability of expert scientific advice

At this moment, expert advice from scientific advisory bodies, e.g. JECFA, is not necessary. There are several publications on management of mycotoxins published by FAO and other organizations/agencies that are available for consultation.

8. Identification of any need for technical input to the standard from external bodies

Currently, there is no need for technical input from external bodies. However, if the need arises, such identified bodies shall be contacted.

9. The proposed timeline for completion of the new work, including the starting date and the proposed date for the

adoption by the Codex Alimentarius Commission

Subject to approval by CAC (2021), the CoP will be circulated for comments and consideration by CCCF15 (2022). Adoption by CAC is planned for 2024 or earlier.