



# ECOWAS Regional Harmonized Aflatoxins Standards

# Background and Justification

- Aflatoxins are highly toxic fungal metabolites produced by certain strains of *Aspergillus flavus* and related species in cereals, nuts and oilseeds and could naturally contaminate diverse foods and feeds.
- Aflatoxins are known carcinogens and adversely affect human and animal health.
- Aflatoxins are also associated with childhood stunting and immunosuppression.
- Aflatoxins have proven to be a major barrier in linking African farmers to markets, as they prevent commodities from meeting international, regional and local regulations and standards governing agricultural trade and food safety.

## **Background and Justification**

- **The widespread occurrence of aflatoxins could undermine regional integration and the establishment of continental free trade areas in agricultural commodities.**
- **Aflatoxins contribute to large post-harvest losses in many crops further contributing to food insecurity and economic loss in Africa.**
- **Overall, Africa loses over US\$ 600 million annually in lost export due to aflatoxin contamination in all foods including groundnuts. Groundnut is one of the most susceptible crops in Africa.**
- **Currently, less than 6% of the world groundnut crop is traded internationally, with export sales averaging close to US\$ 1 billion dollars per year.**

# Background and Justification

- In Africa, Nigeria, Sudan, Senegal, Chad, Ghana, Congo, and Niger are the main groundnut producers.
- Although, groundnut production in African countries fluctuated greatly, it never exceeded 8% of the world output over the last decade.
- Today's exporters face two major challenges: ensuring food safety by preventing and controlling mycotoxin (aflatoxin) contamination of products and adapting supplies to demand for varieties best suited to specific end-uses.
- It is important to note that there is no set maximum limit for aflatoxin in groundnut, maize and by-products, and many other crops susceptible to the contamination in the West Africa region.

# Background and Justification

- Moreover, most countries' quality control system is weak; there is lack of resources for the implementation of aflatoxin regulation. Consequently, the aflatoxin health burden is comparatively higher in developing countries, besides having favorable ecologies for toxin development.
- Regulatory requirements are only met on export crops while foods in local/domestic markets are largely uncontrolled risking the safety of the local consumers.
- Food code has become an important global reference point for consumers, food producers and processors, national food control agencies and all those involved in the international food trade.
- Several countries are realizing the need for adopting/having national, regional or international standards to enable them effectively protect the health and interests of their consumers and traders.
- Due to growing importance and application of international standards in ensuring public health and fair-trading practices, there is express need to set and enforce regional maximum limit for aflatoxin in the susceptible crops value chain.

## Background and Justification

### Ongoing discussion within the codex committee on contaminants in foods: Proposed draft MLs for total aflatoxins in certain cereals and cereal-based products including foods for infants and young children (at Step 4, codex steps, meaning subject to countries' comments)

Food category	ML ( $\mu\text{g}/\text{kg}$ )	Rejection rate (%)	Intake reduction (%)
Maize grain, destined for further processing <sup>a</sup>	15	5.4	93.2
Flour, meal, semolina and flakes derived from maize	10	1.5	88.5
Husked rice	15	2.7	74.2
Polished rice	4	1.2	77.4
Sorghum grain, destined for further processing	8	2.7	72.6
Cereal-based Food for infants and young children <sup>b</sup>	1	0.7	-

<sup>a</sup> Destined for further processing" means intended to undergo an additional processing/treatment that has proven to reduce level of AFs before being used as an ingredient in foodstuffs, otherwise processed or offered for human consumption. Codex members may define the processes that have been shown to reduce levels; <sup>b</sup> All cereal foods intended for infants (up to 12 months) and young children (12 to 36 months).

## Background and Justification

### Ongoing discussion within the codex committee on contaminants in food: Proposed draft ML for total aflatoxins in ready-to-eat peanuts and associated sampling plan

- This is a topic that affects many African countries and it is timely to resolve this issue
- Hence, the proposed **ML = 10 µg/kg.**
- The proposed ML of 10 µg/kg would be expected to improve the export potential of African countries, while still protecting the health of African populations, taking into account the absence of a recognized safe level for this carcinogen.
- It may also be noted that a ML of 10 µg/kg for total aflatoxin has recently been adopted as a harmonized ML by six countries in the East African Community (EAC) and is also a current standard in others such as South Africa.
- **Taking into account the above, it is paramount to set ECOWAS regional aflatoxin standards in the key agricultural value chains**

# Objectives

- To harmonize sampling protocols and analysis procedures in the ECOWAS Member States
- To generate scientific data on contamination and consumption
- To perform exposure assessment and risk characterization for aflatoxins in the ECOWAS Member States
- To support standards setting process and set/establish regional maximum limit for aflatoxin in groundnuts and other susceptible crops
- To harmonize the established regional maximum limits



# PROPOSED KEY STEPS

- *1. Collect aflatoxin contamination along the selected value chains and consumption data in the 15 ECOWAS Member States (Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Guinea Conakry, Guinea Bissau, Gambia, Ghana, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo).*
- *2. Estimate the margin of exposure due to groundnut (example) consumption in pilot countries (Senegal, Ghana, Guinea Bissau)*
- *3. Data analysis using recommended software programs and interpretation*
- *4. Regional and national consultation meetings*
- *5. Publication and dissemination of the validated technical regulation*

**THANK YOU FOR YOUR ATTENTION**