Aflatoxin contamination in foods and feeds from South Kivu, Eastern Democratic Republic of Congo and its relationship with socio-demographic and socio-economic factors

Aflatoxins are the most hazardous mycotoxins produced by fungi mainly in the genera *Aspergillus*, *Penicillium*, and *Fusarium*. Due to their high stability, aflatoxins are a cause of concern not only during crop production, but also in storage, transport, processing, and post-processing steps. Aflatoxin contamination is one factor that reduces competitiveness agricultural commodities for export. Moreover, its impurities lead to significant economic losses for the producing countries. It also impacts the health of humans and livestock which negatively affects household security, livelihood, productivity, and income. This study was undertaken to establish baseline levels of AFs contamination in foods and feeds in South Kivu and to identify socio-demographic and socio-economic factors associated with the high level of AFs. One hundred and twenty samples of maize, cassava, and groundnut were obtained from three differences of crops and livestock productions and agro-ecological zone. High contamination levels were found in maize and groundnut samples. Results showed also that the contamination in maize and groundnut was higher than the limit set by EU regulations for AF-B1 and total AF. Additionally, the limited knowledge or awareness of most actors along the food and feed chain in South-Kivu has been considered to be one of the main problems in this contamination. To address aflatoxin problems in South-Kivu, therefore, possible intervention strategies should provide support for capacity building and supply chain coordination, increased public awareness and knowledge through education and extension, as well as improved incentives for management of fungal species. Partnerships also need to be forged between research institutions, the departments of agriculture of various states, marketing agencies, NGOs, farmers’ groups, consumer groups, and other stakeholders.

Keywords: Aﬂatoxin contamination, DR Congo, Socio-economic, Socio-demographic, Knowledge of aflatoxin