

## ABSTRACT

Kenya's dairy industry plays an important economic role in the life of farmers, milk processors, milk traders, feed manufacturers and traders. This industry contributes 14% of the agricultural GDP and 3.5% of the total GDP. In Kenya, the dairy sector, and especially milk production is exposed to different risk contamination factors which will not only affect the product quality but also its innocuity. Economic costs of aflatoxin contamination could be split into two categories: direct market costs and human health costs. Using agro-ecological zones, five counties in Kenya- Kwale, Isiolo, Tharaka Nithi, Kisii, and Bungoma were selected randomly for this study. For direct costs, questionnaires were directed to feed retailers, milk producers, milk traders and feed producers. Food and feed samples (99 dairy feed, 286 milk, 386 staples (maize, millet, sorghum ground nuts and cassava) were collected for laboratory aflatoxin analysis (ongoing) to estimate the aflatoxin daily consumption rates in man and dairy cattle. In the case of health costs, primary and secondary data is being collected to assess the estimated cost of aflatoxin in Kenya. Following Rico-Sole (2012) and introducing an additional weighting factor related to the proportion of aflatoxin provided by milk consumption, the health expenditure costs related to aflatoxin through milk will be estimated. It is possible to assess health costs using secondary data provided by the national health statistics in Kenya (health expenditure, diseases, number of the population, number of exposed population, etc.) and fixing values for the remaining variables on the basis on literature review. However, the uncertainties about the actual health impacts of aflatoxin exposure in a population make it difficult to fully evaluate the burden. The approach in this study follows the risks of exposures at different steps in the dairy value chain and includes consumer surveys. This will provide increased knowledge about the risks and a basis for improved assessments of the costs.

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