

## Isolation of filamentous fungi from different food matrices from Angola and Mozambique

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Agriculture remains the main economic activity in most African countries. However, crops are often contaminated with fungi that can cause diseases or produce mycotoxins, which is a major concern to food safety and security. Little is known about the mycotoxigenic fungi contaminating the most relevant staples in Mozambique and Angola. The aim of this work was to isolate and identify fungi from three food commodities – corn, peanuts and beans – and understand if they are a source of mycotoxin exposure to the populations, as these products are fundamental to the local food diet, and important to the economy. Samples of corn from Mozambique, and samples of peanuts and beans from Angola (four samples of each) were analysed for fungal contamination. Samples were also surveyed for aflatoxins using the AgraStrip® Pro WATEX® (Romer) method.

Twenty-five grains of each sample were directly plated onto DRBC, and filamentous fungi were isolated after 5 to 7 days of incubation at 25 °C. A total of 56 fungal isolates representing the various fungal morphotypes were molecularly identified by Sanger sequencing of the ITS region. The microbiota of all samples was mainly composed of *Aspergillus* sp., *Fusarium* sp. and *Penicillium* sp., many of them belonging to mycotoxigenic species. Phytopathogenic fungi of four genera – *Lasiodiplodia* sp., *Macrophomina* sp., *Nigrospora* sp. and *Pseudocercospora* sp. – were also identified. Most species were common to all types of samples. Aflatoxins were detected in all samples.

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