



## Molecular Identification Of Toxigenic *Aspergillus* and *Fusarium* Species Isolated From Traditional Cheese *Wagashi* Produced In Benin

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### Abstract:

Traditional Wagashi cheese is an important source of high-quality animal protein, particularly for low-income populations in Benin. It is often used as a substitute for meat and fish in various dishes. Despite its significance, Wagashi can be contaminated by different strains of toxigenic molds capable of producing mycotoxins that pose health risks to consumers. Therefore, it is essential to identify the potentially toxigenic molds that colonize *Wagashi*. The aim of the study was to identify potential toxigenic species of *Aspergillus* and *Fusarium* isolated from traditional Wagashi cheese produced in Benin, to assess the associated health risks for consumers. Preliminary isolation and identification of seven potential toxigenic mold strains were carried out using conventional microbiological methods, as well as macroscopic and stereomicroscopic observations. The isolates were then confirmed by PCR using species-specific primers. The study revealed that four of the seven isolates—*Aspergillus flavus*, *A. ochraceus*, *Fusarium verticillioides*, and *F. poae*—previously identified by conventional methods, were confirmed by PCR. These results highlight the limitations of conventional methods in microbial identification and reveal that Wagashi produced in Benin contains toxigenic potential mold strains that may compromise the safety of the product.

**Key-words:** Toxigenic molds, mycotoxins, *Wagashi*, molecular identification, Benin