

**Comparative study between *Aspergillus* section *Flavi* strains from MUM and Isolates from Nigeria**

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A comparative study between strains of *Aspergillus* section *Flavi* belonging to Micoteca da Universidade do Minho (MUM) and strains from Nigeria isolated from maize (*Zea mays*) and guinea corn (*Sorghum bicolor*) was made. The study was focused in this section due to the fact that some strains are mycotoxin producers, more specifically aflatoxins. Mycotoxins are toxic secondary metabolites produced by fungi which contaminate agricultural commodities.

Considering the toxic effects of mycotoxin in the human and animal populations, the isolation, identification and characterization of mycotoxigenic fungi is of high importance.

The identification of the Nigerian fungal isolates was carried out using the modern polyphasic approach using several techniques of fungal characterisation: macroscopic (photography), microscopic (optical and SEM), mycotoxin screening (HPLC), MALDI-TOF MS and molecular biology analysis.

In special contexts of low available technology or in routine field analysis, the comparative study highlighted the morphological differences between the different species belonging to this section, allowing us to make a good and quick presumptive screening of potential mycotoxigenic species. Add on the top of this the spectral and molecular results are the confirmatory layer.



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