

MICOLOGIA

158

Molecular identification of member species of *Aspergillus* section *flavi* contaminating brazilnut material from Acre and Amazonas.

(Identificação molecular de espécies membros do *Aspergillus* seção *flavi* contaminantes de castanha do brasil nos estados de Acre e Amazonas.)

Trindade, L. de S.¹; Midorikawa, G. E. O.¹; Mesquita, R. M. L. C.²; Bittencourt, D. de C. M.²; Gonçalves, R. C.³; Miller, R.N.G.¹

¹Universidade de Brasília; ²Embrapa Amazônia Ocidental; ³Embrapa Acre. E-mail: s.luciano.trindade@gmail.com

Aflatoxins (AFs) are carcinogenic polyketides produced by fungi within the genus *Aspergillus*, section *Flavi*. Typically, *Aspergillus flavus* and *A. parasiticus* are the most common AF producers, with *A. nomius*, *A. tamarii*, and *A. pseudotamarii* less frequent. Fungal isolates were collected from *Bertholletia excelsa* endocarp and kernel material. Total DNA was extracted from single-spore isolates belonging to the genus *Aspergillus*, using a standard phenol-chloroform-based protocol. PCR amplification and sequencing of ribosomal DNA (rDNA) ITS regions 1 and 2, followed by Blastn analysis against the NCBI nr database allowed identification of isolates to species level. A variety of potential aflatoxin producing members of *Aspergillus* section *Flavi* were identified, with species predominance dependent upon geographical origin. In the case of isolates from production areas in Acre, rDNA-based identification revealed 18 isolates of *A. flavus* and one *A. nomius* isolate, in contrast to those originating from Amazonas, with 20 isolates identified as *A. nomius* and four as *A. tamarii*. Data on species distribution of potential aflatoxin-producing Aspergilli is important for the development of adequate strategies for mycotoxin prevention and control.

Apoio: Embrapa (0209010100000), CNPq (562680/2010-1), MCT/CNPq/FNDCT (50/2010).