

# Characterization of *Aspergillus flavus* isolated from wine-making grapes

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Concern about filamentous fungi in vineyards has been traditionally linked to the spoilage of grapes. However, the recent detection of ochratoxin A in wines has increased this interest in mycotoxins. Although not very common in grapes, *Aspergillus flavus* is occasionally isolated from grapes. *A. flavus* is the main producer of the well known carcinogenic mycotoxins, the aflatoxins. The presence of this fungus and aflatoxins is of major food safety concern. The identification of *A. flavus* is not straightforward due mainly to similarities with its closely related species (*A. parasiticus*, *A. nomius*). Morphological and biochemical parameters may be used for identification: *A. parasiticus* is differentiated by its uniseriate conidial head; *A. nomius* by the detection of aflatoxins B1, B2, G1, G2 (as does *A. parasiticus*), but without the detection of cyclopiazonic acid; and *A. flavus* by the detection of aflatoxin B1, B2 and cyclopiazonic acid only. The identification scheme is revisited, by testing 26 strains isolated from winemaking grapes. Biochemically, 12 strains were found to produce aflatoxins (10 strains produce all the aflatoxins, while two produce only the B ones). Morphologically, 9 strains were identified as *A. parasiticus*, and all were aflatoxin producers (one of which producing just the B ones). These data will be discussed in detail.

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