

OCHRATOXIN A AND FILAMENTOUS FUNGI IN RED WINE GRAPES FROM SANTA CATARINA, BRAZIL

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The quality of wines has been evaluated traditionally according to sensorial properties. Recently, safety issues have been raised, such as pesticide residues and mycotoxins, with the introduction of new agricultural practices and the development of analytical methods with higher sensitivity. Ochratoxin A (OTA) is such a mycotoxin, produced by some *Aspergillus* and *Penicillium* species and is one of the most recent safety issues for wine.

The mycobiota of, and the occurrence of OTA in Southern Brazilian grapes are not known. The presence of these contaminants was assessed by collecting 30 samples of grapes, from 16 vineyards, from the two most important wine sub-regions in the State of Santa Catarina, Brazil. The mycobiota was evaluated by plating 10 grapes from each sample in Dichloran Rose Bengal Chloramphenicol Agar and Sabouraud Dextrose Agar, supplemented with chloramphenicol. Production of OTA by black *Aspergillus* strains was estimated after growing in Czapeck Yeast Agar. OTA was analysed in 9 grape samples by chromatography with immunoaffinity clean-up, as stipulated by the European regulation.

Three hundred and eighty seven strains were isolated. The dominant genera were *Cladosporium* (found in 86.7% of plated berries), *Alternaria* (80.0%), *Botrytis* (70.0%), *Aspergillus* (66.7%), and *Penicillium* (63.3%). Sixteen *A. niger* aggregate strains (26 % of total *Aspergillus* strains) were isolated, and OTA was not detected from any of these strains. No *A. carbonarius* was isolated. OTA was found in 6 grape samples, with a range of values from 0.16 µg/Kg to 0.77 µg/Kg.

In conclusion, no OTA producing black *Aspergillus* strains were found in grapes, although some grape samples contain the mycotoxin. The fungal source of OTA requires further investigation.