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## Fungi in Grapes Cultivated in Brazil Used for Juice Production

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### Resumo

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Grape production has become an important activity in Brazil, mainly due to the sustainability of small vineyards, resulting in more employment in the grape processing industry. Although there is an effort to control fungal contamination in food, the toxigenic fungi are present in nature and occur regularly in food such as cereals, fruits and nuts. The three main genera of toxin production in foods are: *Aspergillus*, *Fusarium* and *Penicillium*. *Aspergillus* section *Nigri* are commonly found in food, while some of its species are able to produce mycotoxins, such as ochratoxin and fumonisin. The objective of this study was to identify the mycobiota of grapes for juice production, in different regions of Brazil. Samples were collected from the states of Paraná (10), Rio Grande do Sul (10) and Pernambuco (9). The samples were plated on agar Dichloran Rose Bengal Chloramphenicol (DRBC) and incubated at 25°C for 7 days. The identification was performed by the morphological characteristics. A total of 29 samples of grapes (Bordo, Isabel and Isabel precoce), all for juice production, were analyzed. All samples showed high fungal contamination (100%). The most common genera found in these samples were *A. section Nigri*, present in 82.75% of the samples, *Cladosporium* sp. (62.07%), *Penicillium* sp. (58.62%) and *Fusarium* sp. and *Alternaria* sp. (51.72%). In addition there was a high rate of infection with yeasts (100%). However, the percentage of

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### Referência:

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infection by each of these fungi varied from region to region. Samples from Paraná showed an average infection by *Aspergillus* section *Nigri* of 9.6%; *Cladosporium* sp. 70.9%; *Penicillium* sp. 12.9%; *Fusarium* sp. 21.6% and *Alternaria* sp. 0%. Samples from Rio Grande do Sul obtained fungal infection by the same species of 8.8%; 4.6%; 2.5%; 6.1% and 30.6% and Petrolina of 41.4%; 52.2%; 28.9%; 4.7% and 41.33% respectively.

**Palavras-Chave:** Fungi, Grape, *Aspergillus*

**Agência de Fomento:** Fapesp