

**TITLE:** MYCOBIOTA, OCHRATOXIN AND TRANS-RESVERATROL IN ORGANIC GRAPES VARIETY NIAGARA WHITE AND PINK.

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**ABSTRACT:**

The conventional agriculture is the model used of the world, but consumer concern about the quality and safety of conventional food has intensified in recent years, and primarily the increasing demand for organically grown food, which is perceived as healthier and safer. In Brazil, the organic fruits produced are mango, banana, grape, strawberry, and guava. The grape is an important food to health and should be consumed frequently, due the presence of polyphenols like resveratrol. The State of São Paulo is the largest grape producer, being that Niagara variety accounts for 89% of plant, however the climate favors the development of fungi on the vine which can lead to production of ochratoxins. This work reports the results of Trans-resveratrol and ochratoxin A quantification and fungal identification in samples of grapes Niagara white and pink from 03 family organic properties in São Paulo State, Brazil. Grape samples were collected in December, 2014. The mycoflora was isolated by direct inoculation onto potato dextrose agar medium. The water activity ( $A_w$ ) was determined in Aqualab equipment and trans-resverastrol and ochratoxin analyzes were done using High Performance Liquid Chromatography (HPLC). The  $A_w$  of samples showed variation from 0.97 to 0.98. The fungi isolated from Niagara grapes white and pink were: *Pestalotiopsis*, *Aspergillus*, *Cladosporium*, *Penicillium* and *A. niger*. The trans-resveratrol was quantitated in concentrations ranging from 0.002 to 4.913 mg/g for white grapes and 0.008 to 4.537 mg/g for pink grapes. Of the 36 grape samples analyzed for ochratoxin A, only 02 (5.5%) white grapes were contaminated (detected and 0,023  $\mu\text{g/g}$ ). The detected trans-resveratrol levels and the absence of ochratoxin A in the analyzed samples showed the good quality of grapes produced by family organic properties studied.

**Keywords:** fungi, mycotoxins, food security, organic agriculture.

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