

Survey on the presence of ochratoxigenic fungus in soil samples of four vineyards in Zadar County

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Ochratoxin A is a secondary metabolite of some species of fungi from the genera *Aspergillus* and *Penicillium*. During their growth, fungi produce ochratoxin A (OTA), and release it into the substrate in which the toxin remains even after the fungus is no longer present. OTA presents a health hazard for animals and humans by causing a decrease in immunity, neurotoxicity, hepatotoxicity, reproductive disorder, and it is considered potentially cancerogenic. Ochratoxigenic fungi can colonize a wide range of staff of plant and animal origin like cereal seeds, coffee, meat products, and, to a lesser extent, beer and wine. The production of quality wines is more and more significant in Zadar County. In the framework of the project „The evaluation of the risk of the contamination of red wines in Zadar County with ochratoxin A“, a research of presence of ochratoxigenic fungi in 4 vineyards in the county was conducted. The soil from 4 vineyards was sampled. For each of the 50 samples mycoflora was inoculated on nutrient substrates and isolated for the purpose of determination. After a three days of incubation, the fungal colonies were isolated and morphologically determined. Potential producers of OTA were inoculated on liquid substrates that support the production of OTA. After the 14 days of incubation, the extraction of OTA was performed. Thin Layer Chromatography (TLC) performed analyses on the presence of OTA.

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