

Title Solid-phase extraction and HPLC determination of Ochratoxin A in cereals products on Chilean market

Author Mario Vega, Katherine Muñoz, Carolina Sepúlveda, Mario Aranda, Victor Campos, Ricardo Villegas and Orialis Villarroel

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Abstract

Ochratoxin A (OTA) is a mycotoxin produced by different species of *Aspergillus* and *Penicillium* fungi. The presence of this mycotoxin in cereals-based products has relation with manufacturing practices, especially with storage conditions. An extraction procedure for OTA from wheat-based products was implemented in this study. The method uses an alkaline extraction with NaHCO₃, purification with Sep-Pak[®] RP-18 cartridges; and quantitative analysis by high performance liquid chromatography with fluorescence detection. The presence of OTA was confirmed by the formation of Ochratoxin A methyl ester. The method shows good validation parameters with a rate of recovery rate over 95%, limits of detection and quantification of 0.6 and 2.1 µg kg⁻¹, respectively. Once the method was validated; 31 samples including, flour, corn starches and rice were analyzed. About 70% of flour samples, 50% of rice and 63% of corn starch samples resulted positives for OTA.