

Title Aflatoxins in bulk and pre-packed pistachios sold in Spain and effect of roasting
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Abstract

The occurrence of aflatoxins in national and imported pistachios available in Aragón (NE Spain), purchased from commercial outlets during 2007, was surveyed. Thirty-two samples of roasted pistachios were analyzed for aflatoxins by immunoaffinity cleanup with liquid chromatography and fluorescence detection using post-column photochemical derivatization. Results showed that the incidence of aflatoxin B₁ and B₂ in pre-packed pistachios was 19% and 6%, while in bulk pistachios was 50% and 12.5%, respectively. All positive samples originated from Iran, while pistachios from USA, Turkey and Spain tested negative for aflatoxins. The low degree of contamination ranged from 0.12 to 0.29 µg/kg, and no sample exceeded the maximum permitted level for aflatoxins in pistachio nuts. Naturally occurring aflatoxin B₁ was not noticeably reduced by commercial roasting at 120 °C for 20 min.