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Occurrence of aflatoxin M_1 in randomly selected North African milk and cheese samples

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Abstract

Forty-nine samples of raw cow's milk and 20 samples of fresh white soft cheese were collected directly from 20 local dairy factories in the north-west of Libya and analysed for the presence of aflatoxin M_1 (AFM_1). The samples were analysed using a high-performance liquid chromatography technique for toxin detection and quantification. Thirty-fi 3 and 3.13 ng ml^{-1} contami ml^{-1} showed coefficients of va white soft cheese s tween 0.11 and 0.52 FM_1 spiked with diff verage recoveries of 63.23, 78.14, 83.29 and 88.68%, with coefficients of variation of 1.53,

9.90, 4.87 and 3.79%, respectively. The concentrations of AFM_1 were lower in the cheese products than in the raw milk samples.

Keywords: aflatoxin M1 cheese milk immunoaffinity columns high-performance liquid chromatography (HPLC)

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