

OCCURRENCE OF AFLATOXIN M₁ IN MILK, WHITE CHEESE AND YOGHURT FROM ANKARA, TURKEY MARKETS

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In addition to the wide consumption of milk across age groups, cheese and yoghurt are frequently used in Turkish cuisine. Therefore, the presence of aflatoxin M₁ (AFM₁) in dairy foods is a significant problem for human health. The aim of this study was to investigate the incidence and levels of AFM₁ in milk, cheese and yoghurt samples in Ankara, Turkey. The AFM₁ levels of the samples were determined using immunoaffinity column (IAC) cleanup followed by high performance liquid chromatography for separation and fluorescence detection. A total of 70 dairy products consisting of 24 UHT pasteurized milk samples, 27 white cheese samples and 19 yoghurt samples were analyzed for AFM₁ during the first 6 months of 2013. Eighty-three percent of the milk samples, 92.6% of the cheese samples and 89.5% of the yoghurt samples were contaminated with AFM₁. The levels of AFM₁ in the samples ranged from 7.3 to 107.2 ng/kg. Only 5 yoghurt samples and none of the milk or cheese samples exceeded the safety limits established by the Turkish Food Codex of 50 ng/kg for milk and yoghurt and 250 ng/kg for cheese. The survey results showed the necessity of regular monitoring for the occurrence of AFM₁ in dairy products

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