Assessment of Aflatoxin M1 in Raw Milk of some dairy animals.

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Abstract:

The incidence of aflatoxins M1 was determined in raw milk of cows, sheep and camels. Samples were analyzed by competitive ELISA technique. AFM1 was found in 63.33% of all tested samples by a mean concentration of 23.38±2.26 ng/L. The incidence of AFM1 in raw cow, sheep and camel milk samples were 62.5%, 62.5% and 65%, respectively. The concentration of AFM1 in raw milk was compared to the maximum tolerance limit accepted by the European union/Codex Alimentarius Commission (50 ng/L). The relation between AFM1 contamination in milk samples and different seasons was described. For all lactating species, the incidence of AFM1 was higher in cold seasons than in hot seasons. Most of tested raw milk samples were contaminated with AFM1 in variable levels with highest AFM1 concentration level in raw cow milk samples. The results indicated that the contamination of milk samples with AFM1 in such levels could be a serious public health problem.

Keywords:

AFM1, raw milk, seasons, ELISA

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