

AFLATOXIN M1 CONTAMINATION IN THE CONSUMED COW AND EWE RAW MILK IN ARDABIL CITY (NORTHWEST OF IRAN)

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Mycotoxins are natural contaminants in a variety of foods and mycotoxins can cause serious risks to human health. Aflatoxin M1 is the second metabolite of Aflatoxin B1. Presence of AFM1 in milk is of worldwide concern. For this study 25 raw cow and ewe milk samples each were collected from milk dairy stores in Ardabil city from June to September 2013. Aflatoxin M1 was determined by ELISA method. 100 % raw cow milk and 100% raw ewe milk samples had AFM1 with values of 15.22 ± 4.04 and 4.68 ± 0.19 ng/L, respectively. Raw cow milk had AFM1 mean higher ($P < 0.01$) than raw ewe milk. Only in one sample of raw cow milk, AFM1 was greater than the maximum tolerance limit (50 ng/l) accepted by European Union. The results show that the AFB1 must be monitored in live stock feed. It seems that the attention should be given to regular monitoring of aflatoxins in dairy products in Ardabil region of Iran. According to our review of literature, this is the first report of AFM1 contamination in raw ewe milk in Ardabil region, Iran.

Keywords: Aflatoxin M1, milk, Ardabil, Iran

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