
P103. THE IMPORTANCE OF MYCOTOXINS IN DAIRY PRODUCTS

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In suitable moisture and temperature conditions some fungus such as *Aspergillus*, *Penicillium*, *Fusarium*, *Alternaria*, *Claviceps* synthesis the mycotoxins which have toxic and carcinogenic properties are fungal metabolites that have low molecular weights. Aflatoxin, ochratoxin, trichothecene, zearalenone, patulin and fumonisin are the most common mycotoxins. Aflatoxins, one of the most important mycotoxins, are heat-resistant, toxic, immunosuppressive, mutagenic, teratogenic secondary metabolic products produced by toxigenic strains of *Aspergillus flavus*, *Aspergillus paraciticus* and *Aspergillus nomius*. Aflatoxins are composed of 6 main components as Aflatoxin B1, B2, G1, G2, M1, M2. According to toxic effects generated by aflatoxins, Aflatoxin B1 (AFB1) is the most effective one. The cows fed diets containing AFB1 and AFB2, commonly found the derivatives which are similar to the main molecules but show less biological effects are called AFM1 and AFM2. Especially, AFM1 make serious problems in terms of food hygiene in dairy products. The carcinogenic effect of AFM1 is 10 times less than AFB1 but their toxicity effects are reported as a same level. As a result of negative effects of aflatoxins on human health, AFB1 is categorized in primary level while AFM1 in secondary level among carcinogenic substances by the International Agency for Research on Cancer depending World Health Organization. AFM1 limit values are indicated regulation of Turkish Food Codex.

Due to carrying high risk for human health, the presence of AFM1 in dairy products should be carried out to reduce mold growth in all processes from production to consumption stage and the feeds which are given to dairy animals should be kept in appropriate storage conditions by controlling them regularly. In addition, modern production techniques should be applied and manufacturers should be raised awareness.

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