

SUMMARY

Bilgin Ö. Detection of aflatoxin M₁ levels in cow, sheep and goat milk in winter and summer seasons

Aflatoxins are a group of mycotoxin with potent carcinogenic, teratogenic, mutagenic and toxigenic effects, produced by certain species of *Aspergillus flavus* and *Aspergillus parasiticus*.

In this study, 180 raw milk samples (30 cow, 30 sheep and 30 goat) analyzed in order to determine aflatoxin M₁ by using ELISA method in winter and summer seasons. The result of analyses showed that aflatoxin M₁ was detected in 3 (10%) cow's milk samples analysed in summer season and 15 (50%) in winter; in 1 (3.3%) sheep milk in summer season and 5 (16.6%) in winter. No aflatoxin M₁ were determined in any of the goat samples analysed.

In 1 of cow milk and 1 of sheep milk samples, the toxin levels were found to be above the officially reasonable limit value (>50 ng/l) recommended by Turkish Food Codex Regulation.

As a result; the level of aflatoxin M₁ contamination in milk samples collected in winter season was higher than those collected in summer season.

Key Words: Cow milk, sheep milk, goat milk, aflatoxin M₁, ELISA