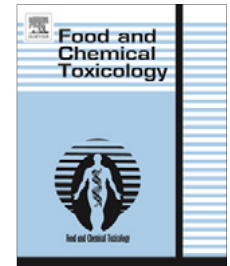




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# Mineral content and microbiological examination of some white cheese in Jeddah, Saudi Arabia during summer 2008

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### ABSTRACT

Different local and exported white cheese samples were collected from different markets in Jeddah during September 2008. Trace and heavy metals including Pb, Zn, Mn, Cu, Fe and Cd were analyzed using atomic absorption spectrometry. The concentration of the tested metals was in the range,  $Fe^{++} > Zn^{+++} > Mn^{++} > Pb^{++} > Cu^{++} > Cd^{++}$ . The mean concentration of 7.63, 7.19, 0.5, 0.47, 0.16 and 0.14  $\mu\text{g/g}$  was recorded for Fe, Zn, Mn, Pb, Cu and Cd, respectively. The concentration of iron ranged from 3.5 to 11.9  $\mu\text{g/g}$ , zinc from 3.4 to 10.5, manganese from 0.12 to 1.0, lead from 0.14 to 1.14, and copper from 0.09 to 0.22. Yeasts and fungi were counted on Sabouraud and Potato Dextrose media and incubation was carried out at 25 °C for 7 and 5 days, respectively. Yeast count and fungi count of cheese were ranged from 0.1 to 0.44 CFU/g and from 0.123 to 1.11 CFU/g, respectively. Three out of 20 samples of cheese were contaminated with toxigenic fungi with 5% contamination level. Aflatoxin G1 was recorded in three samples using immunoabsorbent column chromatography with a range from 7 to 13 ppm.

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