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Oral Presentation

Determination of heavy metal amounts of aluminum, mercury and lead in milk offered for consumption in Erzurum province

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Abstract

In this study, it was aimed to detect heavy metals of aluminium, mercury and lead in raw milk collected from Erzurum region. Analysis of heavy metals in 50 raw milk samples collected from Erzurum region was carried out in the ICP-MS device situated in Atatürk University Eastern Anatolia High Technology Application and Research Center. Statistical analyzes were performed with GraphPad Prism 7.0 (GraphPad Software, San Diego, CA, USA). Statistical values were stated as mean ± SD, and the results were evaluated with the one-way ANOVA method. According to the analysis results of 50 raw milk samples collected from Erzurum region, obtained results were aluminium 478.7-698.1 µg/L, Mercury 0.0016-0.015 µg/L, lead 0.89-2.61 µg/L. According to the results of the analysis, heavy metal levels analyzed in 50 raw milk samples in terms of Turkish Food Codex were found to be below the limits, and only high levels of aluminium according to JECFA.

Keywords: aluminum, mercury, milk,

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