



**FOOD SAFETY ANALYSIS OF INORGANIC POLLUTANTS IN
MILK PRODUCED IN THREE SUB COUNTIES OF KIBOGA
DISTRICT**

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ABSTRACT

The presence of toxic metals in food is being recognized as a priority by standards organization and constitutes an analytical challenge. Factors that lead to pollution of milk by heavy metals include environmental conditions, the manufacturing process and the possible contamination during several steps of the manufacturing process. The aim of this study was to evaluate samples of raw milk, determining the concentration of three heavy metals (pb, cd and cr) in milk produced in Kiboga district and comparing the results with the permissible residue limits by FAO. 30 samples of raw bovine milk were collected from 3 sub counties of kiboga district (Muwanga, Dwaniro and Bukomero sub county).i.e. 10 samples from each sub county from different farms. Samples were analyzed using Atomic Absorption Spectrometry (AAS).The mean concentration of pb and cd(0.188mg/kg and 0.0107mg/kg) respectively, were detected to be lower than the permissible residue limits (0.3mg/kg and 0.2mg/kg)respectively by FAO and the mean concentration of cr(0.129mg/kg) was detected to be higher than the permissible residue limit (0.05mg/kg) by FAO

KEY WORDS: Metals, raw bovine milk, atomic absorption spectrophotometry(AAS)

DECLARATION

I **Ssegujja Alex** hereby declare that this dissertation is original and has never been reproduced, copied and submitted to any institution for any assistance or award of academic credit or qualification.

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This dissertation has been submitted with the approval of my supervisor,

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DEDICATION

I dedicate this work to, Mr.kakembo Fred (my father), my mother Nakijja Sarah, Nantume Christine, Nantale Vodia, Serugo Julius, Kamuhanda Fred my relatives and all mentors that have played different roles in the development of this work

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LIST OF ABBREVIATION

Pb	Lead
Cd	Cadmium
Cr	Chromium
DR	Doctor
WHO	World health organization
AAS	Atomic Absorption Spectrometer
Sops	Standard Operating procedures
FAO	Food and Agriculture Organization.