

**DETERMINATION OF LEAD METAL CONCENTRATION ON FREE
RANGE POULTRY EGGS IN MAKONGENI AND RUIRU IN THIKA SUB
COUNTY.**

BY

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ABSTRACT

Lead (Pb) metal is toxic and present in the environment and has the potential of passing through the food chain. The determination of Pb metal in eggs is essential in establishing the potential health effects of this element to human beings. The main objective of this study was to determine the presence and the amount of Pb metal in free range reared poultry eggs in Makongeni estate and Ruiru town in Thika Sub County. The study was experimental consisting of testing 377 randomly selected eggs from indigenous poultry. The eggs were broken and from the contents pb metal was determined using the Limit test method.

The egg samples were gathered between the months of May and June 2014 and after analysis it was established that there was presence of Pb metal and was within the acceptable limits of 0.5PPM. The total presence of Pb metal was 11.7% of the sampled eggs. It was 10.7% in Makongeni estate and 12.5% in Ruiru town. The difference was not statistically significant.

In conclusion, free range poultry eggs in Makongeni estate and Ruiru town in Thika Sub County contained Pb metal and the possible sources were poultry forage, soil and water. Based on the findings there is need for regular egg inspection for Pb metal to ensure that they remain within the acceptable limits with the presence of industries.