

A study on the prevalence of endo-parasites in indigenous chicken and the activity of crude extracts of *Aloe secundiflora* against *Ascaridia galli* *in-vitro* in selected districts in Kenya

Fredrick Baraka Kaingu

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ABSTRACT

Indigenous Chicken(IC) form the majority of the poultry industry in Kenya. Several constraints facing the IC include diseases such as viral, bacterial, protozoan and helminthiasis. Prevalence study of helminthes was conducted in six selected districts in Kenya. In Western (Kakamega and Bondo), South rift (Narok and Bomet) and North rift (Turkana and West Pokot). A simple floatation method for qualitative analysis and the use of modified McMaster method for quantitative analysis were used. A total of 710 Indigenous Chicken were examined from the six districts, 27.04% were infected with coccidia (protozoa), 25.63% with *Ascaridia galli*, 13.24% were found with *Raillietina echinibothrida*, 8.45% with *Capillaria annulata*, 5.21% with *Capillaria retunsa*, 1.41% with *Heterakis gallinae*, 0.3% with *Syngamus trachea*, 2.96% with *Raillietina tetragonal*, while 15.8% were found to be negative. The prevalence of parasites was significantly different in the districts at $p < 0.05$. There was no significant interaction between parasites and regions; $p > 0.05$. The Inhibition Percent of *Aloe secundiflora* extracts on *Ascaridia galli in vitro* was dependent on the method of extraction and the concentration of the crude extract used. Acetone and aqueous extracts were the most larvicidal >90 Inhibition Percent with no significant difference on the inhibition from a concentration of 5mg/ml-50mg/ml. Phytochemical tests on the extracts revealed the presence of chemical compounds i.e. tannis, terpenoids, and glycosides which are known to have biological activities against helminthes.