

Antiparasitic activity of papaya seed extract (*Carica papaya*) in free-range local breed chicken (*Gallus gallus*) production system in Ketou District.

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Keywords: *Carica papaya*, *Ascaridia galli*, *Eimeria* sp, *Heterakis* sp, *Capillaria* sp.

Publication date 31/08/2019, <http://www.m.elewa.org/JAPS>

1 SUMMARY

A field study with a completely randomized design was carried out to evaluate the antiparasitic activity of dried seed meal of unripe mature papaya fruit on gastrointestinal parasites of the traditional chicken farming system in Ketou district. The targeted parasites were *Ascaridia galli*, *Eimeria* sp., *Capillaria* sp. and *Heterakis* sp. Nine chicken flock units of at least 10 local chicken were enrolled in the study which makes three experimental groups of chickens with three replications per treatment. The first group was treated with the Niclosamide-levamisole molecule complex, a conventional chicken antiparasitic drug (VPV: *Vermifuge Polyvalent Volaille*) with one tablet orally given to an individual adult and half a tablet orally given to an individual young chicken. The second group received, in drinking water, dried seed meal of papaya fruit at a dosage of 1 mg per chicken for 5 days. The third group received drinking water as a placebo. A total of 198 faecal samples were analysed in the laboratory with the quantitative flotation method using the McMaster Chamber. The results obtained demonstrated the effectiveness of *Carica papaya* extract treatment on coccidia in the first place and also on *Ascaridia galli* with effects comparable to that of the conventional antiparasitic drugs used in commercial chicken production system. The efficiency time period was 3 weeks for the extract of *Carica papaya*. This means that the treatment must be renewed every 3 weeks to guarantee its effectiveness. However, the most appropriate dose remains to be elucidated and the use of other organs of the plant for better efficacy will be the subjects of further investigations.