

(49) **Bebora L.C**, Maingi N, Nyaga P.N, Mbutia P.G, Njagi L.W., Githinji J, Kemboi D.C. and Chege H.W. (2012): Severe parasitism – a hindrance to effective Newcastle disease control in village chickens? Paper presented at 3<sup>rd</sup> RUFORUM biennial conference, held in Entebbe, Uganda, September 2012. Conference program page 6 – (titled "*Enhancing village chicken productivity through parasite management for effective Newcastle disease vaccination*")

### **Abstract**

The study was carried out as a preliminary to determine parasite carriage of village chickens in Mbeere District, Eastern Province, Kenya, as at the year 2011, wet season. It was also carried out to confirm continued endemicity of Newcastle disease (ND) in the respective area. Intensive multiple infections of village chicken with ectoparasites (lice, mites, fleas, ticks), gastro-intestinal parasites (nematodes, cestodes, coccidia) and hemoparasites (*Plasmodium*, *Leucocytozoon* and *Aegyptinella* species) were observed. Antibodies to ND virus were demonstrated in the chickens, an indication of the disease endemicity in the area. This emphasized the necessity for ND vaccination, as a control measure for the disease. Caution is given that the intensive state of parasitism may lower the chickens' immune response to the vaccine, thus be a hindrance to effective ND control in the chickens (research is going on to establish this). This is due to the fact that parasitism is stressful to the infected chickens, and that stress is associated with immune-suppression. Total parasite control would, therefore, be one of the necessary measures required in order to implement effective vaccination against New castle disease..