

Prevalence of haemoparasites infection in indigenous chicken in Eastern Province of Kenya

Sabuni, Z A; Mbuthia, P G; Maingi*, N; Nyaga*, P N; Njagi*, L W; Bebora*, L C; Michieka, J N

Date: 2011

Abstract

Indigenous chickens constitute over 81% of poultry in Kenya and produce 71% of eggs and poultry meat. Ecto- and haemoparasites limit production of these birds in the rural areas. However, there exists scanty information on these parasites infection in indigenous chicken. This study was conducted to determine and document the type and prevalence of haemoparasites affecting different ages and sex groups of free range indigenous chicken from two agro ecological zones: Lower highland 1 (LH1) in Embu District and Lower Midland 5 (LM5) in Mbeere District in Eastern Province, Kenya. Of the 144 birds examined, 79.2% were infected with haemoparasites, with 62.3% single and 37.7% mixed haemoparasitic infections. *Plasmodium gallinaceum* was the most prevalent haemoparasite (53.5%) followed by *Leucocytozoon schoutedeni* (52.1%) and *Hemoproteus* spp., (3.5%). Grower birds had a prevalence of 83.3% for haemoparasites compared to 81.3% of adults, and 72.9% of chicks ($p > 0.05$). Male birds had 83.3% prevalence, while female birds had 75.0% ($p > 0.05$). LH1 was found to have a slightly high prevalence of 81.9% compared to LM5, 76.4% ($p > 0.05$). *Hemoproteus* spp were isolated in chickens from LH1 but not from LM5. This study has documented a high prevalence of haemoparasites, hence further studies to determine the impact of infection on the health and productivity of these birds, and evaluation of cost benefit of various control strategies need to be undertaken