

Survey of bacterial and parasitic organisms causing disease and lowered production in indigenous chickens in Southern Nyanza, Kenya

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Abstract:

A cross-sectional study was carried out to identify bacteria and parasites that caused disease and lowered productivity in indigenous chickens in Rachuonyo and Migori districts in Southern Nyanza, Kenya. A total of 21 chickens from 11 randomly-selected homesteads, within a group that was recruited into the African Institute of Capacity building and Development (AICAD) project, were used in the study. The chicken-keepers routinely vaccinated their birds against Newcastle disease and were recovering from an outbreak of Gumboro disease which had caused high mortalities. Picking of the chickens for postmortem examination was by random selection at household level and also geared towards picking those that showed signs of disease. Bacterial isolations were done from pooled oro-pharyngeal and cloacal swabs, and swabs from liver and/or other organs showing pathology. Parasitological isolations were done from skins and gastro-intestinal tracts. *Pasteurella* and *Klebsiella* were isolated from cases that were showing respiratory signs, while *Salmonella Gallinarum* was isolated from liver and spleen of a few birds showing signs of mild peritonitis. Other bacteria isolated, from oro-pharyngeal and cloacal swabs, included: *Staphylococcus*, *Bacillus*, *E. coli*, and *Enterobacter*. *Aspergillus fumigatus* was isolated from a case of skin wounds and defeathering. Parasitological isolations included: ascarids, tape worms, flukes, pin worms, tetrameres, stick-tight fleas and scaly-leg mites. These organisms were associated with various pathological lesions. Since they indirectly cause stress that is associated with increased susceptibility to other diseases and reduction in productivity of the birds, it was found advisable that, in addition to vaccination against the viral diseases, the poultry-keepers exercised regular deworming and dusting of the birds with acaricides, as well as treating the birds whenever they appear sick.