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Strategies for improving the meat and egg productivity of indigenous chickens in Kumi and Apac districts, Uganda

[1]Ssewannyana E., [2]Onyait A.O., and [1]Masaba J.
[1]National Livestock Resources Research Institute, P. O. Box 96 Tororo, Uganda; [2]Department of Veterinary Services and Animal Industry, P. O. Box 44 Kumi, Uganda.

Corresponding author e-mail: edssewannyana@yahoo.com; lirirdir@yahoo.co.uk; Tel: 256-754-221110; 256-703173043

Abstract
In Uganda the majority of people live in rural areas. Despite the economic shortfalls of these areas, there exists potential for harvesting and utilizing the existing resources for improved productivity for better living standards. Among the resources available to the rural farming community are the indigenous chickens. These birds comprise 80% of the total poultry population of 23 million birds in Uganda (MAAIF, 2000). The major challenges in rural chicken production system are: (i) the inherent low genetic potential for meat and egg productivity and (ii) the New Castle Disease (NCD), which is the main killer of indigenous chickens in the rural set up. This paper describes how two strategies, namely, (i) Crossbreeding local hens with Bovans Brown cocks and (ii) monthly vaccinations of crossbred chickens against NCD were employed in tackling the above two challenges in order to increase meat and egg productivity of indigenous chickens and to improve the economic and nutritional status of the rural households. The interventions led to significant overall changes in the various parameters studied. Average flock size/household/year increased by 195.6%; average number of

eggs/clutch by 90%, hatchability by 22.2% and average daily gain (gm/day) by 89.7%. The intervention of vaccinations against NCD reduced mortality by 89.3%. While chicken sales/household/year increased by 269.4%, offtake/household/year in Uganda shillings increased by 546.4%. Chicken consumption/household/year increased by 211.5% while the overall increase in egg consumption/household/year was an astronomical 510.7%. The interventions also caused shifts in gender roles. While more women became involved in constructing the chicken houses and decision making, more men got involved in caring for the chickens. All in all, the strategic interventions of crossbreeding and control of NCD increased chicken productivity per household and had positive economic and nutritional impacts on the individual households.

Key words: Indigenous chicken, New Castle disease, crossbreeding, vaccination, impact