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Comparative Productivity of Black Australorp and Indigenous Chickens under Free-ranging Village Conditions in Malawi

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Abstract

Black Australorp (BA) exotic breed of chicken has been introduced to crossbreed with local chickens (LC) in Malawi since 1960. Localised surveys and reviews have shown that the crossbreeding program has had no impact on improving local chicken productivity. The program however, continues and farmers like the exotic breed due to “exotic is good” mentality. As an incentive to work with indigenous (local) chickens on farmer households and for farmers to see the impact for themselves, a study was conducted to compare production characteristics of BA and LC when left to free-range on village flocks. BA ($n = 125$) were distributed at random to farmers in the villages at 9 weeks old. On those farmers, LC ($n = 124$) of the same age but hatched and mothered by a local hen were used to compare growth performance. The remaining 64 BA were kept intensive and fed commercial ration. Live weights were collected on all birds every week.

At 23 weeks of age, BA fed commercial ration were 8.36 % superior in live weights and weight gains than BA and LC on free-range in the villages. On the other hand, LC on free-range were numerically superior to BA on free-range in the villages both for live weights and weight gains. The results showed possible genotype \times environment interaction, meaning BA perform better than LC when properly managed, unlike the management situation in the villages. Growth curves for both breeds showed continued growing even after 23 weeks of age. Mortality was 14.4 % in BA, 11.3 % in LC on free-range in the villages by the fifth week, while mortality was 4.7 % in BA kept intensive. This showed that BA were less adaptive to village environment and needed good management.

The current study has demonstrated to farmers that BA is just preferred due to its exotic image but is not a suitable breed to use to improve LC. The study also showed potential productivity of LC and the need to promote the local breed through breeding and management. In feedback discussion, farmers appreciated the findings of the study.

Keywords: Black Australorp, free-range, local chicken, crossbreeding, Malawi