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Effect of roselle powder (*HIBISCUS SABDARIFFA*) dietary supplementation on performance of weaner rabbits

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Abstract

The paradigm shift towards making livestock production as natural as possible has necessitated increased research into the use of plants with medicinal and other bioactive components, as feed additive in livestock production. Roselle (*Hibiscus sabdariffa*) is one of such medicinal plants that can be used as supplement in rabbit feed to enhance growth performance with remarkable success.

Thirty two, six weeks old Hyla rabbits with average weight of 720g were randomly allotted to four experimental groups with each group replicated into four with two rabbits in each replicate. The experimental design was a completely randomised design. The experimental groups/diets is as follows:

Group 1 (G1) = Control basal diet + 0% Roselle powder

Group 2 (G2) = Containing basal diet + 0.50% Roselle powder

Group 3 (G3) = Containing basal diet + 0.75% Roselle powder

Group 4 (G4) = Containing basal diet + 1% Roselle powder

The feeding trial lasted for seven weeks during which all management practices including medications were administered. The effects of treatments on performance indicators such as feed intake (FI), body weight change (BWC) and feed conversion ratio (FCR) were measured weekly. All data collected were analysed using analysis of variance (ANOVA) in statistical analysis system (SAS 2009) software. Statistical differences between the treatment means were compared at 5% probability using Duncan Multiple Range Test.

Inclusion of Roselle powder in the diet of rabbit elicited increased feed intake, final body weight and body weight change ($p < 0.05$). In terms of feed intake, treatment 2 recorded the highest significant value ($p < 0.05$). Feed conversion ratio was also improved in T3 and T4 with the inclusion of Roselle powder in the diets. No mortality was recorded in the study and rabbit did not show any sign of digestive disorder throughout the experimental period.

Keywords: Performance, roselle powder, supplementation, weaner rabbit