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Microbial Load of Fecal Material of Broiler Birds Administered with Lagenaria Breviflora Extract

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Abstract : This study investigated the effect of Lagenaria breviflora on broiler poultry birds, including its effect on the microbial count of the poultry droppings. A total of 240-day-old broiler chicks were randomly assigned to six groups, with four replicates per group. The first group was the control, while the other four groups were fed water containing 300g/L and 500g/L concentrations of Lagenaria breviflora twice and thrice daily. The microbial load was determined using the plate count method. The results showed that the administration of Lagenaria breviflora in the water of broiler birds significantly improved their growth performance with an average weight gain range of 1.845g - 2.241g. Mortality rate was at 0%. The study also found that Lagenaria breviflora had a significant effect on the microbial count of the poultry droppings with colony count values from 3.5 x 10-7 - 9.9 x10-7CFU/ml, The total coliforms (Escherichia coli, and Salmonella sp.) was obtained as 1 x 10 -5CFU/ml. The reduction in microbial counts of the poultry droppings could be attributed to the antimicrobial properties of Lagenaria breviflora, which contain phytochemicals reported to possess antimicrobial activity. Therefore, the inclusion of Lagenaria breviflora in the diets of broiler poultry could be an effective strategy for improving growth performance and immune function and reducing the microbial load of poultry droppings, which can help to mitigate the risk of disease transmission to humans and other animals.

Keywords : gut microbes, bacterial count, lagenaria breviflora, coliforms
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