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EFFECT OF DIETARY AZOLLA (*Azolla pinata*) SUPPLEMENTATION ON PERFORMANCE OF GROWING PIGS

R.M.H. Shaill Rathnayake[1], W.A.D. Nayananjalie[2*] and H.K.R.S. Kumara[1]

[1]Department of the Food-Technology, Institute of Agro-Technology and Rural Sciences, University of Colombo, Sri Lanka
[2]Department of Animal and Food Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Mihinthale, Sri Lanka
[*]deepthin@agri.rjt.ac.lk

The study was conducted to evaluate the effect of supplementing different levels of Azolla on the growth performance of growing cross-bred pigs. Sixty-day-old large white crossbred pigs (n = 100) were randomly assigned to four dietary treatments, with five replicates per treatment and five pigs per replicate, using a completely randomized design. The experimental diets consisted of a basal diet supplemented with Azolla at 0% (T1), 10% (T2), 15% (T3), and 20% (T4) levels. Growth performance and morphometric changes were assessed throughout the study (90 d). Statistical significance was determined using ANOVA, and mean separation was conducted using the Tukey test. Pigs fed with T3 (18.4 ± 0.03 kg) and T4 (18.2 ± 0.03 kg) showed significantly higher feed intake compared to those on T1 and T2 diets. The highest weight gain (1.3 ± 0.12 kg) was observed in pigs fed T2, with a significantly lower feed conversion ratio (1.2 ± 0.10) compared to other treatment groups. The body length of pigs was significantly greater in T2 (834.8 ± 20.31 mm) and T3 (820.8 ± 20.31 mm) compared to pigs fed with T4. The highest palate length (243.5 ± 13.17 mm), thorax circumference (565.7 ± 10.58 mm) and shank circumference (311.4 ± 18.44 mm) were observed in pigs fed T2 compared to T4. The cost of feed per kilogram of live weight produced was significantly lower ($p < 0.05$) in all Azolla-supplemented groups. This cost-effectiveness highlights the economic benefits of integrating Azolla into pig diets. In conclusion, supplementing 10% Azolla in the commercial grower ration improves growth performance in growing large white crossbred pigs while reducing production costs. Further research could explore optimal inclusion levels and long-term effects on pig health and productivity.

Keywords: Cost-effective, Economic benefits, Large white cross-bred pigs, Growth performance, Pig nutrition