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| **Bibliography** | Ahizo, J.; Amben, S.; Lobâo, M.W.; Roberts, A.D.; Pandi, J. (2023) Restricting conventional feed intake for pasture-raised broilers in Papua New Guinea: effect on growth parameters and carcass yield, In: Journal of Animal Science and Veterinary Medicine, Vol.8 (6), 247-254, URL: https://doi.org/10.31248/JASVM2023.384 |
| **Abstract / Content summary** | Using agro-industrial by-products and root crops as feed sources in broiler nutrition is gaining momentum. Yet, it is uncertain whether farmers should utilize outdoor movable pens and pasture to raise broilers. In this study, growth responses of 96 Ross strain broilers reared on pasture versus conventional rearing system were evaluated. The former involved subjecting broilers to kikuyu-white clover pasture and restricting finisher ration by 50%. The latter were kept totally confined and fed the same diet ad libitum. All birds were fed a starter ration from days 1-2 and introduced to both rearing systems at finishing-phase (days 22-42) using a completely randomized layout. There were four replicates, each with 12 birds randomly allotted to eight experimental pens. Daily feed intake (DFI), daily weight gain (DWG) and associated costs were recorded over 42 days. Feed conversion ratio (FCR) was calculated weekly while carcass yields were measured at day 42. DFI (116.1 g, b-1 vs. 165.2 g, b-1), DWG (10.47 g, b-1 vs. 21.15 g, b-1) and final weights (1,912 g, b-1 vs. 2,978 g, b-1) varied significantly (p<0.05). Pasture-raised broilers consumed less feed, gained less weight and were comparably lighter than full-fed broilers. FCR also differed significantly (2.26 vs. 1.66; p<0.001); pasture-raised broilers were less efficient at converting feed to body mass. While carcass weights (2,058 g, b-1 vs. 2,715 g, b-1) and dress percentages (71.65 vs. 76.73) were statistically (p<0.05) lower for pasture-raised broilers. They were less expensive (PGK14.08, b-1 vs. PGK11.05, b-1; p<0.05) to produce with significantly higher benefit-cost ratio (2.35 vs. 1.99; p>0.05). Raising broilers on kikuyu-white clover pasture is feasible but needs further evaluation, particularly with 30-40% feed restriction and its implications on compensatory weight gain. Keywords: Benefit-cost ratio, broilers, carcass yield, growth parameters, pasture |
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