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| **Item type** |  |
| **Bibliography** | Ahizo, J.; Tokam, T.; Amben, S. (2024) Ascites incidences and related growth responses in feed-restricted broilers raised under cold high-altitude conditions in Papua New Guinea, In: Journal of Comparative Medicine Research Reviews and Reports, Vol.1 (1), 1-8, URL: https://mkscienceset.com/current\_issue/journal-of-comparative-medicine-research-reviews-and-reports |
| **Abstract / Content summary** | Modern broilers are highly susceptible to ascites syndrome under high-altitude environments in Papua New Guinea. Severe ascites results in economic losses which undermines the viability of broiler enterprises, hence the need for counteractive measures. This study evaluated the influence of feed restriction on ascites incidence and growth responses of broilers under high-altitude conditions. A total of 180 one-day-old Ross 308 broilers were randomly assigned to four treatments (RT) consisting of three replicates with 15 birds each. Broilers subjected to RT1 had feed available for eight hours daily throughout the 49-day rearing period. Birds under RT2 were offered feed eight hours daily from 1-21 days and then unrestricted feeding at day-22 onwards. RT3 had feed available ad libitum from 1-7 days, followed by restricted feeding at eight hours daily from 8-28 days: then unrestricted feeding from 29-49 days. Broilers exposed to the control regime (C100) had unlimited access to feed. Data on feed conversion, weight gain, ascites incidences, and associated costs were subjected to a one-way analysis of variance. Broilers on C100 consumed more feed, gained more weight, and were heavier than RT1, RT2, and RT3 (p<0.05). In contrast, lower weight gain and final weights were noted in broilers on RT1 (p<0.05). Broilers under RT3 and RT2 attained better weight gain and final weights than RT1 (p<0.05). Irrespective of feeding regime, feed conversion ratios were similar (p>0.05). Feed restriction programs lowered overall mortality to less than 8 % and all ascites-related deaths by 86 to 100 % (p<0.05). Accordingly, feed-restricted broilers attained better benefit-cost ratios than C100 (p<0.05). Ascites incidences may be reduced by feed restriction however, the severity and duration can adversely impact compensatory growth. Metabolic testing may be required for optimizing the duration over which feed restriction is imposed to encourage sufficient compensatory growth in broilers.
Keywords: Broiler, Feed Restriction, Ascites, Growth Response, High-altitude |
| **File** |  |
| **File info** | 531.67 KB, PDF |
| **External web link** | https://mkscienceset.com/current\_issue/journal-of-comparative-medicine-research-reviews-and-reports |
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