Feeding different forms of ration including compound pellet and performance of growing black bengal goat

Abstract

The experiment was conducted at the Laboratory of Animal Nutrition Department in Bangladesh Agricultural University, Mymensingh with growing male Black Bengal goats. The aim of present study was to observe the effects of feeding different forms of diet on the performance of Black Bengal goat. A ration was prepared in three different forms such as A- green grass + concentrate mixture in conventional form, B- green grass + concentrate in pellet form and C- both grass and concentrate in compound pellet form according to NRC (1981) nutrient requirements. Twenty four Black Bengal goats were randomly divided into three groups (average body weight: A- 9.20 ± 0.56 kg, B- 9.14 ± 0.53 kg, C- 9.05 ± 0.45 kg). Three forms of diet were supplied to three different groups of goat for 100 days. Completely randomized design was followed in the experiment. Data were analyzed using the general linear model (GLM) procedure of statistical analysis software (SAS). The effects of feeding different forms of diet on performance of goat was different. Compound pellet group C showed highest ($p<0.05$) weight gain, total CPI, total MEI, daily MEI 100kg-1 body weight and kg-1 W 0.75, improved ($p<0.01$) PCR and DMI from grass, total DMI , DMI d-1100kg-1 body weight, DMI d-1 kg-1W 0.75 and also improved ($p>0.05$) FCR among the treatment groups where conventional dietary group A showed lowest performance. Processing of feed improved ($p<0.01$) CP, ($p<0.05$) EE and ($p>0.05$) DM, OM, CF, NFE, ADF, NDF digestibility in group C than other two groups and the lowest digestibility of the parameters was found in group A. Nutritive value of CP and EE was highest ($p<0.01$) and ($p<0.05$) in group B and in group C, respectively. Besides these, highest ($p>0.05$) nutritive value of CF, D value and TDN were observed in group C and NFE in group B. Intake and retention of nitrogen in group C and excretion of nitrogen through feces in group A was highest ($p>0.05$) but through urine in group B was highest ($p<0.05$) among the treatment groups. Highest ($p<0.01$) dressing percentage, ($p<0.05$) meat yield, price of meat, rearing cost and net profit were attained by group C and lowest by

group A. From the above observation, it can be concluded that compound pellet feed is best for economic goat production in stall feeding.