

Feeding Different Levels of Energy and Crude Protein in Compound Pellet and Performance of Black Bengal Goat

Abstract

Three different complete compound pellets containing different levels of energy and crude protein, viz. standard energy and protein (SEP), low energy and protein (LEP) and high energy and protein (HEP) were prepared where SEP contained 10.28 MJ ME and 140g CP per kg DM of feed, LEP contained 10% less energy and protein and HEP contained 10% high energy and protein than SEP, respectively and were fed to three groups of growing Black Bengal goats to evaluate feeding value of different levels of ME and CP containing pellet. Data were analyzed using the general linear model (GLM) procedure of statistical analysis software (SAS). The effects of different level of energy and protein containing pellet on performance of goat were different. Highest energy (ME) and crude protein intake and best FCR, PCR and total liveweight gain were observed in HEP but SEP and HEP showed significantly higher ($p < 0.01$) values of the parameters than LEP and only HEP showed significantly higher ($p < 0.05$) crude protein intake (Kgd-1100-1Kg LW and gKg-1W 0.75d-1) and MEI (MJd-1100-1Kg LW and MJ Kg-1W 0.75d-1) than LEP. Both SEP and HEP groups showed significantly higher ($p < 0.01$) digestibility of CP than LEP. On the other hand, HEP showed higher ($p < 0.01$) digestibility of DM and OM than both SEP and LEP but digestibility of EE was higher ($p < 0.01$) in SEP than LEP and HEP. Digestibility of NFE was dissimilar in three groups and the difference was significant ($p < 0.01$) where highest value was found in HEP. Dissimilar percentage of digestible value of CP, NFE and D values were observed among the groups where HEP showed highest value ($p < 0.01$) and LEP showed lowest. Percent of digestible value of CF was higher ($p < 0.01$) in LEP than SEP and HEP. On the other hand SEP and LEP showed higher ($p < 0.01$) value of EE than HEP where as SEP and HEP showed higher ($p < 0.01$) value of TDN than LEP. Meat yield, selling price of meat, and total price was highest in HEP but both SEP and HEP showed significantly higher ($p < 0.01$) value of these parameters than LEP. Feed cost and total rearing cost was highest in HEP but the values were dissimilar among the groups and the

difference was significant ($p < 0.01$). Insignificantly highest net profit was observed in SEP and lowest in LEP. From the observation it can be concluded that there is a positive effect of increasing energy and crude protein in diet on performance of goat but economically not significant and in this case standard energy and crude protein containing diet can be used for commercial goat production in stall feeding