ABSTRACT

Twenty growing Small East African goats were used to determine the effects of feeding sun-dried leaves of the browse forages Berchemia discolor and Zizyphus mucronata as supplements to low-quality basal diet, Rhodes grass (Chloris gayana) hay, on voluntary feed intake (VFI), digestibility and growth performance. The grass hay and maize bran were used as a control. The dried leaves were then included at the rates of 15% and 30% of the dry matter intake (DMI). Berchemia discolor had the highest crude protein (CP) content of 195.5 g/kg DM, while Z. mucronata had CP content of 169.5 g/kg DM. The grass hay had the lowest CP content of 50.9 g/kg DM. The browse forages had low fibre content [Neutral detergent fibre (NDF); 257.9-369.5 g/kg DM], while the grass hay had high fibre content (NDF; 713.1 g/kg DM). Goats in the groups supplemented with either of the browse forages had higher total DMI, nitrogen (N) intake and retention and live-weight gains than those in the control diet group. The digestibility of DM and organic matter (OM) was not affected by supplementation, but the CP digestibility increased with supplementation. The use of the browse forages as supplements for goats fed on poor-quality basal diets would enhance the performance of the animals.