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Comparative evaluation of effective microbes and urea molasses treated finger millet (*Eleusine coracana*) straw on intake, digestibility and growth performance of washera lambs

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This experiment was carried out to evaluate the comparative effectiveness of effective microbes (EM) and Urea molasses treated finger millet straw on chemical composition, nutrient intake, and digestibility and growth performance of washera lambs. Twenty yearling intact male Washera lambs with an initial body weight of 21.13 ± 1.77 kg (mean \pm SD) were used in 90 days feeding trial followed by 10 days digestibility trial. These lambs were grouped into five blocks of four animals and randomly assigned to four dietary treatments. The four experimental feeds were: Untreated finger millet straw + 150 g wheat bran (WB) (T1), untreated finger millet straw + 150 g Wheat Bran (WB) + 150 g Noug Seed Cake (NSC) (T2), urea molasses (UM) treated finger millet straw + 150 g WB + 150 g NSC (T3) and EM treated finger millet straw + 150 g WB + 150 g NSC (T4). The lambs were de-wormed and vaccinated against ecto and endoparasites. They were acclimatized for 15 days to the experimental diets and individual pens. Water and mineral block (salt) were offered as free choice throughout the experimental period. The supplemental feeds were offered twice daily in two equal portions. Untreated and treated finger millet straw was provided as a basal diet and offered ad libitum. Daily feed offered and refused were weighted and recorded. Live weight gain of each lamb was recorded in two weeks interval, before feeding. Digestibility trial was conducted at the end of the growth trial. Lambs were acclimatized to faecal collection bags for 3 days followed by 7 days of total faecal collection. Data were analyzed using the GLM procedure of SAS version (2003). Results showed that the CP content of finger millet straw was improved from 2.13% to 9.7% in urea molasses treatment and 2.13 to 2.39% in EM treatments respectively. Total DM, CP, and OM intake was higher in lambs assigned in urea molasses and effective microbes treated groups than the control groups; with significantly highest ($P < 0.01$) in urea molasses treated groups. Total DMI as the percentage of BW had no significant difference ($P > 0.05$) among the treatment groups. EM treatment records significantly higher ($P < 0.05$) apparent digestibility of DM, CP, ADF, higher feed conversion efficiency and relatively lower TDMI as BW than the rest treatments. Effective microbes and urea-molasses treatments improved feed digestibility, feed conversion efficiency, and body weight gain is being highest in EM treatment. Therefore, it can be concluded that EM and UM treatments could serve as an alternative measure to improve the nutritive value of finger millet straw, but due to environmental effect EM treatment could be the safe alternative than urea molasses treatment.