

**Preference test on feed and nutrient intakes in male and female lesser mouse deer  
(*Tragulus javanicus*) in captivity**

ABSTRACT

A preference test on feed and nutrient intakes were conducted on four male ( $1.25 \pm 0.08$  kg) and four female ( $1.21 \pm 0.15$  kg) lesser mouse deer (*Tragulus javanicus*) in captivity. Each animal was kept in individual cages placed in a well-ventilated animal house. The experiment was conducted in two weeks, where the first week was for adaptation to the feeds and the second week for measurements of nutrient intake, nutrient digestibility and nitrogen balance. The feeds offered were kangkong (*Ipomoea aquatica*), long bean (*Vigna sinensis*) and french bean (*Phaseolus vulgaris*) as roughages and proteinaceous feeds; sweet potato (*Ipomoea batatas*) and carrot (*Daucus carota*) as carbohydrate-rich feeds; and commercial rabbit pellet (0.3 cm diameter and 0.5 cm long) as a complete feed. The dry matter (DM) content of each feed in the order mentioned above was 7.1, 6.1, 3.9, 18.5, 6.2 and 87.6%, respectively. Long bean had the highest protein (CP) content (29.7%), while sweet potato had the lowest (6.2%). The CP contents of other feeds were within the range of 14.2 -25.1%. Among the feeds, carrot had the lowest energy content (3.83 kcal/g) and long bean the highest (4.67 kcal/g). When fresh weight of the feed was considered, the male mouse deer consumed sweet potato the most ( $86.3 \pm 12.90$  g/d), but the female had a high preference for carrot ( $79.2 \pm 9.76$  g/d). The other feeds were consumed in lesser amounts. However, in terms of DM of the feed, the amount of commercial pellet consumed was the highest for both male ( $45.0 \pm 5.10\%$ ) and female ( $44.7 \pm 7.38\%$ ) mouse deer, followed by sweet potato ( $33.1 \pm 4.43\%$  and  $22.4 \pm 7.73\%$  for male and female, respectively). Significant ( $p < 0.05$ ) differences in DM, organic matter (OM) and gross energy (GE) intakes were observed between male and female mouse deer. The male consumed higher amount of DM, OM and GE than the female. The total DM intake was  $40.7 \pm 2.24$  g/d/kg W<sup>0.75</sup> for male and  $35.9 \pm 1.72$  g/d/kg W<sup>0.75</sup> for female mouse deer. Percentage digestibilities of DM, OM, CP and GE were within 72.7-80.8% and were not significantly different between male and female mouse deer. However, male mouse deer had significantly ( $p < 0.05$ ) higher digestible DM, OM and GE intakes than the female. Both male and female mouse deer were in positive nitrogen balance (0.6 g N/d/kg W<sup>0.75</sup>). The male mouse deer gained  $7.6 \pm 3.45$  g/d, while the female gained  $4.3 \pm 2.40$  g/d.

**Keyword:** Feed preference; Lesser mouse deer; Nutrients intake