

THE INFLUENCE OF DIETARY FIBER ON DIGESTIBILITY , PASSAGE RATE, AND BODY MASS IN CAPTIVE BABOONS (*Papio anubis*)

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This was a preliminary study in which nutrient digestibility, digesta passage rate and body mass were determined for a captive group of baboons (*Papio anubis*). The group consisted of 6 adult, nonpregnant females. Three experimental diets, varying in acid detergent fiber (ADF) content, were fed. The fiber content of the experiment diets was: diet1=10.45% ADF, diet2=18.30% ADF and diet3=30.40% ADF. Apparent digestibility of fat (as ether extract EE); and ADF differed significantly among diets ($p < 0.05$). Mean apparent digestibility of EE for each diet was: diet1 = $54.99 \pm 5.53\%$, diet2 = $64.09 \pm 3.83\%$, and diet3 = $80.1 \pm 3.20\%$ (mean \pm deviation). Mean apparent digestibility of ADF for each diet was: diet1 = $44.72 \pm 14.4\%$, diet2 = $61.26 \pm 9.36\%$, and diet3 = $68.96 \pm 14.7\%$ (mean \pm std. dev.). There were no significant differences in apparent digestibility of dry matter (DM), crude protein (CP), gross energy (GE), or neutral detergent fiber (NDF) among diets. Digesta passage rate, measured as transit time (TT), 50% recovery (FR) and maximum recovery (MR), tended to increase with increasing ADF content of the diet. Mean TT, FR and MR on each diet was: diet 1 = 32.1 hrs TT, 48.8 hrs FR 60.8 hrs MR; diet 2 = 26.0 hrs TT, 52.2 hrs FR, 88.8 hrs :MR; and diet 3 = 33.6 hrs TT, 52.7 hrs FR, 88.0 hrs MR. There were no significant differences in mean body mass among animals on diets ($p < 0.05$).

Key words: Baboons, *Papio anubis*, fiber, digestibility, transit time