



# Comparison of *in situ* nylon bag technique with *in vitro* procedure to estimate dry matter and other nutrients digestibility in buffalo calves

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**ABSTRACT :** Three male murrah buffalo calves were taken for entire investigation. The average digestibility co-efficient for dry matter, crude protein, ether extract, crude fibre, nitrogen-free extract, total carbohydrates, total ash, acid detergent fibre and neutral detergent fibre were  $53.05 \pm 11.05$ ,  $54.50 \pm 0.90$ ,  $52.59 \pm 11.14$ ,  $53.54 \pm 1.09$ ,  $53.38 \pm 1.04$ ,  $53.38 \pm 1.08$ ,  $32.08 \pm 2.04$ ,  $52.82 \pm 1.60$  and  $60.06 \pm 1.19$  at 72 hours, respectively by *in situ* nylon bag technique. The average digestibility of above mentioned feed nutrients were recorded to be  $52.19 \pm 1.03\%$ ,  $53.09 \pm 1.04\%$ ,  $51.39 \pm 1.09\%$ ,  $52.41 \pm 1.07\%$ ,  $52.56 \pm 0.99\%$ ,  $52.43 \pm 1.06$ ,  $31.61 \pm 1.90\%$ ,  $51.88 \pm 1.07\%$  and  $59.09 \pm 1.17\%$  at 72 hours, respectively by *in vitro* procedure. The dry matter, crude protein and ether extract digestibility estimated by *in situ* nylon bag technique were significantly higher ( $P < 0.01$ ) than the value estimated by *in vitro* procedure. The crude fibre, nitrogen-free extract, total carbohydrates, total ash and neutral detergent fibre digestibility values obtained by *in situ* nylon bag technique vs. *in vitro* procedure did not differ significantly. The acid detergent fibre digestibility was statistically significant ( $P < 0.05$ ) in *in situ* nylon bag technique than *in vitro* procedure.

**KEY WORDS :** Comparison, Nylon bag, *In vitro*, Digestibility, Dry matter

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