EVALUATION OF GRASS QUALITY IN GRAZING AND UNGRAZING PADDOCKS IN A BUFFALO BREEDING AND RESEARCH CENTRE, TELUPID, SABAH, MALAYSIA

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Abstract

Buffalo production is dependent almost entirely on forages. Thus, adequate nutrition plays important role in the productivity of buffaloes. In Buffalo Breeding and Research Centre, Telupid, Sabah, Malaysia, Signal Grass *(Brachiaria decumbens)* is fed to buffaloes. Since the growth of the buffalo depends on the nutritional quality of grass provided to them, this study was undertaken to evaluate the nutrient contents of signal grass to determine its quality. In addition, a comparison was made on the nutrient contents between signal grass obtained from the grazing and non-grazing areas. Six grass samples each was obtained from grazing and non-grazing areas. The grass samples were taken using the quadrat and all the samples were air-dried and sent to Universiti Pertanian Malaysia for proximate analysis. The dry matter (DM) and crude protein (CP) were determined. The values of Van Soest Fibre were also determined, to include neutral detergent fibre (NDF), acid detergent fibre (ADF) and acid detergent lignin (ADL). The results revealed that the DM and CP were significant ($p<0.05$) higher in grass from grazing than non-grazing area. There was also significant ($p<0.05$) negative correlation between DM and CP contents of signal grass. In conclusion, the grass in grazing area has better nutritive value compared to grass in non-grazing area. In addition, the relationship between DM and CP was inversely related, that is as DM increases CP decreases. The results of the current study could be used to improve the performance of farm and as a reference for future study.

Keywords: *Brachiaria decumbens*, proximate analysis, Van Soest Fibre