ABSTRACT

The Effect of Cassabio Usage Levels in Concentrate on Ruminant Fermentability and Digestion (*In Vitro*)

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Onggok is a tapioca industry by-product that has low in crude protein, however, high in soluble carbohydrate (BETN). Due to some literatures, fermentation technologies would able to enhance the nutritional content of onggok. The objective of this research was to evaluate the levels of fermented onggok-urea-zeolite (cassabio) by *Aspergillus niger* on rumen performance of ruminant (*in vitro*). Concentrate was made up with mixing some levels of cassabio (10, 20, and 30%) and some other feed ingredients. Ration consisted of forage and concentrate with ratio of 40%-60%.

Parameters that observed were ammonia (NH$_3$), Volatile Fatty Acid (VFA), Dry Matter Digestibility (DMD) and Organic Matter Digestibility (OMD). The results showed that levels of cassabio were significantly increase (p < 0.05) ruminal NH$_3$ concentration i.e from 6.55 to 10.21 mM. Increasing the levels of cassabio on rations up to 30% (P3) did not affect VFA, DMD, and OMD ration.

Key words: amonia, cassabio, dry matter digestibility, in vitro, organic matter digestibility