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Effect of *Sacharomyces cerevisiae* and *Sapindus rarak* supplementation in diet based of Oil Palm Frond (OPF) on nutrient digestibility and body weight gain of Goat

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This experiment was conducted to study the effect supplementation of *S. cerevisiae* and *Sapindus rarak* in diet OPF-based of nutrients digestibility and body weight gain of goat. The experiment was done in Ruminant Nutrition Laboratory of the Faculty of Animal Science Andalas University, Padang. Six teen male Ettawa Goat (40+2.75 kg (SEM) liveweight) were allocated to four treatments in a Randomised Block Design, with four replicates per treatment. The four treatments were (A) native grass + concentrate (B), OPF (previously treated with 3% urea) + concentrate, (C) Diet B + 1% *S. cerevisiae* and (D) Diet C + 4% *Sapindus rarak*. The animals were adjusted to their treatments over a 2 week preliminary period which was followed by an 8 week experimental period. Feed intake was determined daily and live weight was measured every two week. Digestibility was measured by total faecal collection over 6 consecutive days on last week of experiment period. Data were analyzed using the General Linear Model procedure in Statistical Analysis Software (SAS, version). The results showed that the dry matter digestibility of treatment B (50.74%) were significantly lower than treatments A, C and D respectively (67.37, 62.38 and 65.71%) and supplementation of *S. cerevisiae* was able to improve nutrient digestibility and body weight gain of cattle, but still low compared to control (A). Addition of 0.4% *Sapindus rarak* in treatment D (123 g/day) was able to provide digestibility and body weight gain similar to the control ration (132 g/day). It can be concluded that the use of OPF as a substitute for grass would give the same results with the grass when added 0.1% *S. cerevisiae* and 4% *Sapindus rarak*.

Biography

Mardiati Zain has completed her PhD at the age of 34 years from Bogor Agriculture Institute Indonesia. She is the head of Feed Technology Laboratory at Department of Ruminant Nutrition, Faculty of Animal Science, Andalas University, West Sumatera. She has published more than 12 papers in reputed journals and has been serving as an editorial board member of repute.

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