

Improving Quality of Local Feedstuff and Its Use for Fattening Of Peranakan Ongole (PO) Male Cattle

Publons ID	36331774
Wos ID	WOS:000279294300015
Doi	
Title	Improving Quality of Local Feedstuff and Its Use for Fattening Of Peranakan Ongole (PO) Male Cattle
First Author	Bata, Muhamad
Last Author	
Authors	
Publish Date	2009
Journal Name	JOURNAL OF AGRICULTURE AND RURAL DEVELOPMENT IN THE TROPICS AND SUBTROPICS
Citation	
Abstract	<p>Rice straw is by-product have not fully been used to feed ruminant especially cattle because of low quality indicated by low nitrogen content and fermentable carbohydrates, while ligno cellulolytic and hemicellulytic bound are high. Those limitations will cause negative effect of rumen microorganism development and the cattle when they are fed it. Improving quality of rice straw should be done and one alternative of the treatments to solve these problems is ammoniation by using urea. Those treatments increase nitrogen content and its degradability in the rumen and also breakdown ligno cellulolytic and hemicellulytic, while fermentable carbohydrate as energy for rumen microbes is limited Therefore, the utilization of rice straw ammoniated should be supplemented with other feedstuff that high fermentable carbohydrates. Fresh cassava waste is by-product from cassava processing that still has remained of starch. It can be used as fermentable energy source for cattle fed rice straw ammoniated; however, the limitation of that feedstuff is high crude fibre. The objective of this research was to improve quality of fresh cassava waste by treating with fibrolytic enzymes as fermentable energy source on performances fattening of local male cattle fed rice straw ammoniated Sixteen 18 month old male local cattle of Peranakan Ongole (PO) were divided into 4 groups based on initial body weight as block. The average of body weight of each group was I = 250,5 kg, II = 218 kg, III = 204,5 kg, IV = 186,4 kg, therefore, Completely Randomised Block Design (CRBD) was used for this experiment. As treatments were kind of diets i.e. A, B, C and D. This diet A diet consisting of fresh cassava waste, rice bran, soybean cake waste, copra meal, mineral mix and salt as concentrates with 14 CP. This diet was used as control (diet A). In treatment diet B, C and D were adding of fibrolytic enzyme to fresh cassava waste 12 hour before mixing to other feedstuff of concentrates for 0,75, 1,5 and 2,25 g/kg dry matter (DM), respectively. The animals were fed with rice straw ammoniated and concentrate at 3% of body weight (BW) on DM basis. The concentrate to rice straw ammoniated DM ratio was maintained at 60: 40, respectively. Variables measured were digestibility of dry matter (DM) and organic matter (OM), average daily gain (ADG), DM intake (DMI), Feed efficiency (FE) and Feed Conversion (FC). The result showed that adding fibrolytic enzyme to cassava waste was not significant effect on ADG, DMI, FE and FC. However, cattle received B, C and D diet tended to have lower ADG and FE compared to the control. The average of ADG and FE were 1,07 kg, 1,00 kg, 1,02 kg, 1,01 and 13,71, 12,68, 13,15, 13,61 for A, B, C and D, respectively. It can be concluded that fresh cassava waste can be used as fermentable energy when cattle fed rice straw ammoniated without any treatments.</p>
Publish Type	Journal
Publish Year	2009
Page Begin	132
Page End	138

Issn	1612-9830
Eissn	
Url	https://www.webofscience.com/wos/woscc/full-record/WOS:000279294300015
Author	Dr Ir MUHAMAD BATA, MS