

Pengaruh Imbangan Jerami Padi, Dedak Padi dan Onggok Terfermentasi terhadap Kecernaan dan Produk Fermentasi Rumen Secara In Vitro

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Abstract	<p>The influence of the ratio of fermented rice straw, rice bran and cassava solid waste upon the In vitro digestibility and rumen fermentation product ABSTRACT. Chemical and physical treatments have been attempted to improve the utilization of agro industrial wastes, but the result is not efficient and caused pollution. Besides, biological treatments using the microbes have been used to improve the nutritive value and utilization of agro industrial wastes. The current experiment was conducted to find out the optimal ratio of fermented rice straw, fermented rice bran and fermented tapioca waste. There were five kinds of ratio of fermented rice straw, fermented rice bran and fermented tapioca waste, namely: K1 (70% fermented rice straw + 15% fermented rice bran + fermented tapioca waste), K2 (60% fermented rice straw + 20% fermented rice bran + 20% fermented tapioca waste), K3 (50% fermented rice straw + 25% fermented rice bran + 25% fermented tapioca waste), K4 (40% fermented rice straw + 30% fermented rice bran + 30% fermented tapioca waste) and K5 (30% fermented rice straw + 35% fermented rice bran + 35% fermented tapioca waste) An in vitro technique, using completely Randomize Block Design was applied and each treatment was repeated four times. Variables measured were Dry matter and Organic matter digestibility and rumen fermentation products (volatile fatty acid and N-NH₃ concentration). The dry matter digestibility of K1, K2, K3, K4 and K5 was 29.39, 31.27, 32.33, 33.71 and 34.82%, respectively. The organic matter digestibility of K1, K2, K3, K4 and K5 was 30.82, 31.27, 32.73, 34.94, and 34.92, respectively. Volatile fatty acid concentrations of K1, K2, K3, K4 and K5 were 95.19, 91.77, 87.21, 104.31, 106.59 mM/l, respectively. N-NH₃ concentrations of K1, K2, K3, K4 and K5 were 0.97, 0.93, 0.93, 1.00, 1.04 mM/l, respectively. Significant difference (P<0.01) was only found in dry matter digestibility among treatments, while others variables were not significantly different among treatments. It was indicated that the optimal ratio was K4.</p>
Publisher Name	Agricultural Faculty
Publish Date	2010-10-01
Publish Year	2010
Doi	DOI: 10.17969/agripet.v10i2.646
Citation	
Source	Jurnal Agripet
Source Issue	Vol 10, No 2 (2010): Volume 10, No. 2, Oktober 2010
Source Page	59-63
Url	http://www.jurnal.unsyiah.ac.id/agripet/article/view/646/554
Author	Dr Ir EFKA ARIS RIMBAWANTO, M.P