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Study of Palm Acid Oil (PAO) from Sludge Palm Oil Mill Effluent (POME) as Goat's Feed

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Abstract

This study was conducted to determine the base dietary of animal feed for goat by utilizing solid waste and to investigate the effectiveness of different dietary of solid waste effect on growth performance of goats. Palm Acid Oil (PAO), Napier grass, coconut waste and water lettuce were used as the sample to produce animal feed for goats. POME is produced during palm oil mill process [1]. PAO is produced during the extracted process of POME. The solid waste produced has caused the pollution problem to the environment. The solid waste undergoes composting method to produce animal feed which is useful to the growth of goat. All these samples were collected and mixed by following the guideline book of title Nutrient Composition of Malaysian Feed Materials and Guides to Feeding of Cattle and Goats by Department of Veterinary Services Ministry of Agriculture and Argo-based Industry Malaysia [2]. Four adult does with an age of 6 months and weighting 23.30 ± 2.47 kg were used then fed with the dietary treatments for 14 days for adaptation and continued until the end of the study, which lasted for 120 days. The 3 indicators to be analysed were the growth performance and body weight gain (BWG) of goats, also the nutrient requirement by goats. In this study, 3 dietary treatments were used (D1, D2, D3) to be compared with control diet (CD). Each diet contains different nutrient and composition. All these samples have nutrient needed by the goat and have a big potential to produce an animal feed. Results showed that goat that takes D1 has the highest growth performance and body weight gain (BW).

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