

# Formulation of *Capra Hircus* Feed to Utilize *Artocarpus Heterophyllus* Leaves and Palm Acid Oil (PAO)

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**Abstract.** Palm Acid Oil (PAO) is the by-product from physical refining product of Palm Oil Mill Effluent (POME). PAO is the product from the last portion of converted Crude Palm Oil (CPO) in the end of that consist free fatty acid (FFA) >50%. The chemical properties in the PAO can make it be a part of animal feed as it is low in free fatty acid (FFA) and cheaper than CPO [1]. This study is focus on reducing the negative impact to the environment by utilizing the waste of POME, jackfruit leaves and soybean waste. Three formulations were tested on goats to determine the most suitable formulation. The formulations have different amount of each material. The nutrient in each formulation was calculated based on feeding guides by Department of Veterinary entitled nutrient composition of Malaysian feed materials and guides to feeding of cattle and goats [3]. Three goats were involved in this study. Two goats were fed with the formulations. Meanwhile, the other one was fed with its regular feeds which is Napier grass Taiwan and commercial pellet that act as a control. The result obtained will be compared with the control goat. The feed intake of each goat was recorded. As results, the suitable formulation of the composition of waste material had been choose as they can increase the weight and performance of Asian domestic goats. The uses of waste proved which is development of waste to be animal feed to meet the green technology and Malaysia Industrial revolution in livestock industries [2].

## 1. Introduction

The palm oil industry has developed as one top industry in Malaysia since the beginning of 1970. In facts, Malaysia is one of the world's largest producer of palm oil with more than 5 million ha of land under oil palm. Currently, Malaysia accounts for 39% of world palm oil production and 44% of world palm oil exportation. It is shown that Malaysia has played an important role in fulfilling the growing global need for oils and fats sustainably. The production of palm oil results in the generations of large quantities of polluted wastewater referred to as POME. POME is the waste in the form of liquid that discharges from palm oil extraction in the palm oil mill. The residue left from the purification of CPO contains various dirt and suspended solids. Besides, it finds that the residue is highly polluting materials due to increases of biological oxygen demand (BOD), low PH and colloidal nature. So, it

*Note N03 Importance of Dry Matter Intake Estimating Dry Matter Intake 1 . Measure How Much of Each Feed Indicators of Adequate / Inadequate Daily Dry Matter Intake Useful Rules of Thumb.”*

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