

FS 09

## INTEGRATION OF PALM FRUIT PLANTATION AND CATTLE; POTENTIAL SYSTEM TO IMPROVE CATTLE PRODUCTION

Armina Fariani, Arfan Abrar and Gatot Muslim

Email : bifarlya@yahoo.com and arfanabrar11@yahoo.com

### ABSTRACT

*Integration of cattle and palm fruit (SISKA) has known as programme to improve cattle production and population in Indonesia. Palm fruit plantation not only provide area for cattle to wander but also provide feeds as forage and stem-midrib of palm. However, this system seem fails to meet their objections. There are very few of palm fruit plantation in Indonesia applied this system volunterilly. Main reason for that were technical and management problems. This study will explore problems and answer related to application of integration of cattle and palm fruit plantation, and also applied the systems in fattening calf program using palm fruit by products. Twenty steers with average of body weight  $153 + 5,3$  kg were grouped into two groups. Each group consists of 10 BX steers. Control group were given forages while treatment group has feed ratios consists of stem-midrib of palm, CPO sludge and salt. Each ratios were formulated to have same dry matter percentage. They were treated 2 month. Observed parameters were dry matter consumption, dry matter digestibility, average daily gain and body condition score. The results shows that there were no significant results on dry matter digestibility, dry matter consumption ( $P > 0,05$ ). However, treatment group has better average daily gain and body condition score.*

*Keywords ; integration, cattle, palm fruit*

### INTRODUCTION

Increased human population growth and increasing urbanisation, will significantly drive the demand for animal foods. Increasing meat consumption requires bigger ruminant population, hence higher forages requirement to feed them. Remenji and Mc William (1986) suggested the need for doubling of forage supply for the livestock, and one obvious source of naturally occurring forage and of land for improvement of forage supply is the area under plantation crops. The presence of a range of perennial tree crops in many of the countries of South East Asia provides a common platform for development of integrated system involving ruminants. Production system integrated with perennial tree crops like coconut, rubber, oil palm and fruits as well as the use of available agro-industry by-product. The integration of cattle in oil palm is a form of mixed farming where the combinations of the two commodities can be synergized in order to optimally utilize the same piece of land. The two commodities, when properly integrated can contribute towards sustainable food production system (Ayob and Kabul, 2009).

A significant change in the oil palm industry has taken place during the past season, as Indonesia surpassed Malaysia in production of palm oil and is now the world leader (USDA, 2007). In Indonesia, 8.43 million hectares of the oil palm plantation areas are suitable for integration. 20 or 30% of the crude oil is used in the animal production programme, making feasible a radical increase in the number of animals, depending on the volume of processing of the extraction plant. This represents the integration of the agriculture and livestock components, which could lead to a major improvement in the efficiency of use of the available resources. It will result in a larger production of biogas, fertilizer and animal products and reduce the dependence of the system on bought-in