Cattle Integration in Oil Palm Plantation through Systematic Management

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ABSTRACT

The oil palm industry in Malaysia has expanded rapidly from 60,000 ha in 1964 to 4.49 million ha in 2008. More than 80% of the matured areas may provide vast opportunity for integration with livestock. This is to maximize the utilization of such production resources as feeds, land and workforce. Cattle integration in oil palm plantation offers one of the best options to increase local beef and dairy supply. Studies and observations on cattle-oil palm integration have shown promising benefits in terms of savings in weeding and labor costs, as well as improved biological and agro-ecosystem impact. A case study on systematic management for the integration of cattle into oil palm was conducted at Sawit Kinabalu Sdn Bhd plantations. The objective of the study is to evaluate the effect of systematic management of cattle integration in oil palm plantation on labor requirement and weeding cost. The study comprised of data collection from participating plantations with regards to maintenance, labor cost, chemical/herbicides usage and yield. The results showed that the integration of cattle into oil palm through systematic management is sustainable. The results also indicated that cost savings in maintenance, labor requirement and labor cost can be achieved.

Key words: cattle integration, oil palm industry, weeds, systematic management

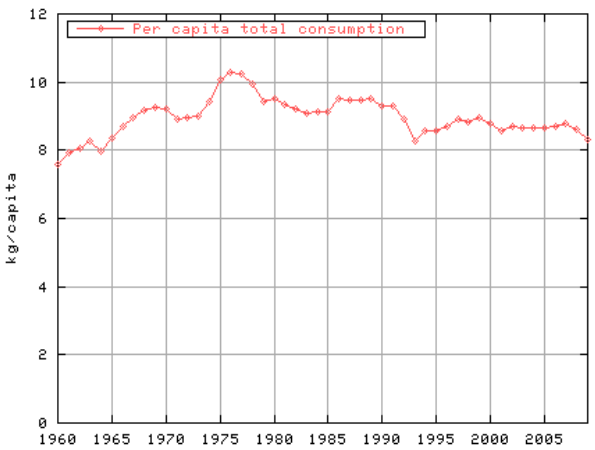
INTRODUCTION

Sustainability of Palm Oil Industry

The world's palm oil production was 36.85 million metric tons (USDA Report, 2007) and palm oil is the main commodity for Malaysia. It has been the most significant agriculture sector that generates around 30% of the Malaysian economy. Both Malaysia and Indonesia are the two leading palm oil producers in the world with an estimated planted area of 4.48 million hectares in Malaysia (MPOB, 2008) and 6.07 million hectares in Indonesia (USDA Report, 2007).

The year 2000 has witnessed the most difficult and challenging year for the industry when surplus stock had caused the commodity price spiraling down below production cost. Further speculation and the environmental issues of global warming have serious negative impact to the industry sustainability. Several measures and initiatives have been taken by Malaysian government to stabilize the situation through Malaysian Palm Oil Board, Malaysian Palm Oil Council and the plantation sector. Among others is the replanting directive to lower down the stock and to diversify its utilization such as bio-fuel.

The raid expansion of oil palm plantation has leads to single or mono cropping land utilization. This will predispose the commodity to biological and economic risk. Alternative approaches must be offered to minimize the risk and simultaneously utilize the plantation area towards resource maximization. One of which is through systematic integration of livestock into the oil palm plantation area.



Source: USDA (2007).

Figure 1. Per capita total consumption of beef