

## **Oil Palm and Kelampayan Intercropping: A Game Changer for Industrial Tree Plantation (ITP) Development in Sarawak**

*based on the observation at the Naman Oil Palm Plantation (LPF/0010), Sibul*

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It was such an amazing experience to visit an oil palm plantation intercropped with kelampayan trees in peatland. It is indeed a game changer for forest industry. And Ta Ann has successfully turning this innovative idea into a reality. Congratulations!

As reported elsewhere, Kelampayan is a large, deciduous and fast-growing indigenous tree species. It grows on a variety of soils but it grows best on well-accelerated fertile soils. Light is another most important condition for its growth. In China, kelampayan is praised as a "miracle tree" due to its fast-growing characteristics. In fact, it is a suitable alternative tree species to replace eucalyptus in agro-industrial applications due to the high demands for biomass utilization.

Based on my observation on a half-day trip (19 Sept 2017) to Naman Oil Palm Plantation (LPF/0010), this LPF could be another ideal site for research and development (R&D) of kelampayan, particularly on how to enhance tree vigour and productivity, and increasing timber yields. Various interesting R&D activities have been carried out in this LPF by the company, such as roadside intercropping either single row or double row; inner block intercropping with or without drainage system (important water source for kelampayan); man-made planting site enriched with mineral soils, river sand, mill wastes from the Manis Oil Mill (presumably); etc. Undoubtedly, the findings derived from these R&D activities will be another useful first-hand information for the company to improve the SOP for planting and managing this species in future. Another interesting observation is that those South-facing kelampayan trees are relatively dominant compared to its counterparts within the plantation.

An in-depth scientific study on kelampayan planting site enriched with mill wastes (i.e., bunch ash, decanter cake) can be conducted 1). to investigate the symbiotic relationship between microorganism that reside in the mill wastes and kelampayan trees, and 2). to determine the synergistic effect of nutrient elements from the mill wastes that contribute to the rapid growth of kelampayan. This result might also be useful in improving the nursery practices, such as composition of potting media, etc. Some dominant kelampayan trees (different origin or seed sources) can also be genetically selected to produce clonal planting material and for advanced breeding programme in future.

Lastly, this LPF/0010 is indeed an ideal study site for kelampayan as many researches or trials have been conducted by the company. These trial sites can be systematically converted into high value research projects.

Thank you and Congratulations for an excellent job done!