The Planter, Kuala Lumpur, 102 (1206)

Early High Oil Palm Yield through Good Agronomic Practices during Replanting: A Comprehensive Field Study

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Aging oil palm plantations with declining productivity require progressive and planned replanting to facilitate the adoption of good agronomic practices (GAP) to enhance early growth and yield. This study evaluates the impact of GAP, on ploughing, liming, legume cover crops (LCC) establishment, fertiliser mat mulching and ablation on early oil palm fresh fruit bunch (FFB) yields and economic returns. The field trial was conducted on Katong series soils (Haplodux) and the treatments GAP, estate standard practices (CO), and poor agronomic practices (PAP) were compared over five years. GAP-treated plots achieved cumulatively significant higher FFB yields (153.32 t/ha) compared to CO (126.25 t/ha) and PAP (105.41 t/ha). Economic analysis revealed a 23 per cent increase in revenue in GAP plots despite elevated initial costs, demonstrating its early profitability. These findings highlight the potential of GAP to improve early oil palm productivity and profitability under estate conditions.

Keywords: Good agronomic practices, replanting, liming, ablation, ploughing, legume cover crops, mulching, oil palm, sustainability, economic viability.