THE DEVELOPMENT OF PROFIT MAXIMISING DECISION MODELS FOR RUBBER PLANTATION MANAGEMENT

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To maximise profits, rubber producers should attempt to change their extraction methods to suit the varying market price; utiling more intensive tapping methods when the price is high and perhaps less intensive methods when the price is low. At present, tapping mehtids adopted tend to be related to the age of the tree, with the main objective of prolonging the economic life of the tree itself, in order to reduce the replanting overhead cost.

This paper reports the development of empirical models identifying cost parameters associated with the extraction of latex and sets threshold values for profit maximisation behaviour. Factors such as the variations in production cost, variations in latex output, and variations in the re-planting overhead costs; when different tapping methods are employed, are treated separately in the models. The costs are compared with the revenue expected under variable market conditions, resulting in the development of threshold values for profitability.

Although the models developed here are largely based on empirical data, the concepts employed can be applied to lay down profit maximising decision guidelines, which is a major depature from the traditional practice of considering the tree life as the major parameter to be optimised, in the management of rubber plantations.