UNIVERSITI TEKNOLOGI MARA

OPTIMIZING THE CARBON ABSORPTION OF PALM OIL PLANTATION IN NEGERI SEMBILAN

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ABSTRACT

The main objective of this study is to optimize the carbon absorption in palm oil plantation. This issue is chosen as this plantation was claimed as one of the cause of deforestation and carbon increase that lead to global warming. One way to achieve this objective is by calculating the total amount of carbon that being absorb by palm oil plantation. The variables involved in the study were the amount of carbon dioxide (CO2) absorbed that was measured in MG C/Ha, the age of the trees (years), the number of palm oil trees in a district and total hectares of the estates. This study identifies the amount of carbon absorption of palm oil plantation in seven districts of Negeri Sembilan which were Jelebu, Jempol, Tampin, Kuala Pilah, Seremban, Rembau and Port Dickson. Data was collected from Malaysian Palm Oil Board (MPOB). The Simplex Algorithm in Linear Programming Method using QM for Windows is applied to find the solution. Hence, the analysis was carried out and the result showed that 7199.64 Mg C/Ha was the optimal value for the amount of carbon dioxide absorbed in Negeri Sembilan. In conclusion, it was observed that the larger the area planted with palm oil, the higher the amount of carbon dioxide absorbed. Result has shown that, this plantation not only produce good edible oil but help in improving the atmosphere by absorbing more carbon.

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